Nameplate Abbreviation: Mercer Valve Co., Inc. Calgary Division

1138444 B.C. A Subsidiary of Mercer Valve Co., Inc. (MCD)

MD Rocky View, AB T1X 0K3Canada

Design Name	e: 1400 Serie	es		NBC	ert # 381	13		
Manufacturer/A	ssembler		Desig	gnators		Expiration Date	e	
Assembler			UV			09/11/2024		
Design Type								
[Safety Relief Valve] 1400 Series Capacity Tests: Sec. UV at National Board Testing Lab on January 29, 2015 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.291 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Mercer Valve Company, Incorporated {MVC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] di	a. Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.5-1 NPS	0.02 in ²		0.06 in	150-10000 psi	Air	UV	
Design Name	e: 81-100000	Series		NBC	ert # 380	01		
Manufacturer/A	ssembler		Desig	gnators		Expiration Date	e	
Assembler			UV			09/11/2024		
Design Type [Safety Relief Va Capacity Tests: 4 Method of Estab Certified Value: 3 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Me	Ive] 81-100000 Serie Sec. UV at unknown lishing Relieving Cap 3.100 SCFM/PSIA /Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full ercer Valve Company	es lab on Novemb pacity: Flow Ca Gas Lift , Incorporated {	er 21, 1984 pacity, Slope [MVC}					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] di	a. Lift	Set Pressure Range	Media	Designator	
0.75-1 NPS	1 - 2 NPS	0.212 in ²	0.52 in	0.19 in	15-3500 psi	Air	UV	
Design Name	e: 81-100000	L Liquids		NBC	ert # 380	12		
Manufacturer/A	ssembler		Desig	gnators		Expiration Date	e	
Assembler			UV			09/11/2024		

Design Type										
[Relief Valve] 8 Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Me	I-100000L Liquids Sec. UV at National E lishing Relieving Cap 5.150 GPM/SQ.RT. F ater/Liquid; Certified: finition: Pop acteristics: Fixed guration: Nozzle/Full ercer Valve Company	Board Testing L pacity: Flow Ca SID Liquid Lift , Incorporated	ab (Picaway) on July ; pacity, Flow Factor {MVC}	20, 1990						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.75-1 NPS	1 NPS	0.212 in ²	0.52 in	0.19 in	15-3000 psi	Water	UV			
Design Name	e: 81-200000) Series		NBCert	# 38023					
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	e			
Assembler			UV		0!	9/11/2024				
Design Type										
Design Type [Safety Relief Valve] 81-200000 Series Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on February 25, 1985 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 7.210 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Mercer Valve Company, Incorporated {MVC}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1.5-2 NPS	2 NPS	0.472 in ²	0.775 in	0.3 in	15-2500 psi	Air	UV			
Design Name	e: 8500 Serie	es		NBCert	# 38102					
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	e			
Assembler			UV		09	9/11/2024				
Design Type										
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Me	Design Type [Safety Relief Valve] 8500 Series Capacity Tests: Sec. UV at National Board Testing Lab on February 12, 2013 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 3.370 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Messary Market Network Processed (MM/C)									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.75-2 NPS	1, 2 NPS	0.212 in ²	0.52 in	0.24 in	15-2400 psi	Air	UV			
Design Name	e: 9100			NBCert	# 38056					
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	e			
						9/11/2024				

[Safety Relief Valve] 9100 Capacity Tests: Sec. UV at National Board Testing Lab on July 19, 1991 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.818 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Mercer Valve Company, Incorporated {MVC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.062 in ²	[C] 0.281 in	0.11 in	15-10000 psi	Air	UV
0.5-1.5 NPS	1 - 2 NPS	0.122 in ²	[D] 0.394 in	0.17 in	15-7500 psi	Air	UV
0.75-2 NPS	1 - 3 NPS	0.212 in ²	[E] 0.52 in	0.19 in	15-6000 psi	Air	UV
1-2 NPS	1-1/2 - 3 NPS	0.337 in ²	[F] 0.655 in	0.27 in	15-5000 psi	Air	UV
1.5-3 NPS	2 - 3 NPS	0.472 in ²	[G] 0.775 in	0.3 in	15-4000 psi	Air	UV
1.5-3 NPS	2 - 3 NPS	0.865 in ²	[H] 1.05 in	0.41 in	15-2750 psi	Air	UV
2-3 NPS	2-1/2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.58 in	15-2700 psi	Air	UV
2-3 NPS	3-4 NPS	1.622 in ²	[JO] 1.437 in	0.6 in	15-1800 psi	Air	UD
3-4 NPS	3,4,6 NPS	2.074 in ²	[K] 1.625 in	0.65 in	15-2200 psi	Air	UV
3-4 NPS	4, 6 NPS	3.205 in ²	[L] 2.02 in	0.8 in	15-2000 psi	Air	UV
4 NPS	6 NPS	4.08 in ²	[M] 2.28 in	0.9 in	15-2000 psi	Air	UV
4 NPS	6 NPS	4.909 in ²	[N] 2.5 in	0.985 in	15-740 psi	Air	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.2 in	15-525 psi	Air	UV

Design Name: 9100L (Liquids)

NBCert #

38067

Manufacturer/AssemblerDesignatorsExpiration DateAssemblerUV09/11/2024

Design Type

[Relief Valve] 9100L (Liquids) Capacity Tests: Sec. UV at National Board Testing Lab on June 9, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.707 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Mercer Valve Company, Incorporated {MVC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.062 in ²	[C] 0.281 in	0.11 in	15-10000 psi	Water	UV
0.5-1 NPS	1 - 2 NPS	0.122 in ²	[D] 0.394 in	0.17 in	15-6500 psi	Water	UV
0.75-2 NPS	1 - 2 NPS	0.212 in ²	[E] 0.52 in	0.25 in	15-3500 psi	Water	UV
1-2 NPS	1.5 - 2.5 NPS	0.337 in ²	[F] 0.655 in	0.32 in	15-5000 psi	Water	UV
1.5-3 NPS	2 - 3 NPS	0.472 in ²	[G] 0.775 in	0.35 in	15-4000 psi	Water	UV
1.5-3 NPS	2 - 3 NPS	0.865 in ²	[H] 1.05 in	0.52 in	15-2750 psi	Water	UV
2-4 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.62 in	15-2700 psi	Water	UV
2-3 NPS	3-4 NPS	1.622 in ²	[JO] 1.437 in	0.64 in	15-1800 psi	Water	UD

3-4 NPS	3, 4 NPS	2.074 in ²	[K] 1.625 in	0.76 in	15-2220 psi	Water	UV
3-4 NPS	4, 6 NPS	3.205 in ²	[L] 2.02 in	0.82 in	15-2000 psi	Water	UV
4-4 NPS	6 NPS	4.08 in ²	[M] 2.28 in	0.95 in	15-2000 psi	Water	UV
4 NPS	6 NPS	4.909 in ²	[N] 2.5 in	0.985 in	15-740 psi	Water	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.2 in	15-525 psi	Water	UV

Aalberts Integrated Piping Systems Americas, Inc. (CNB)

Nameplate Abbreviation: Aalberts IPSA, Inc.

Pageland, SC 29728United States

Design Name	e: 10-321 (R ^v	VW32)		NBCert	# 11035	5			
Manufacturer/A	ssembler		Designat	Designators			Expiration Date		
Manufacturer			HV	HV			03/24/2027		
Design Type									
[Safety Relief Valve] 10-321 (RVW32) Capacity Tests: Sec. HV at Ohio State University (Robinson Laboratory) on May 8, 1975 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 8.900 PPH/PSIA Media - Test: Steam; Certified: Saturated Water Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Aalberts Integrated Piping Systems Americas, Inc. {CNB}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.75-0.75 NPS	.75 NPS	0.442 in ²	0.75 in	0.14 in	20-60 psi	Steam	HV		
Design Name: 10-407 & 10-408 (30 psig) NBCert # 11057									
Design Name	e: 10-407 & 1	10-408 (30	psig)	NBCert	# 11057				
Design Name Manufacturer/A	e: 10-407 & 1 ssembler	10-408 (30	psig) Designat	NBCert	# 11057 E	7 Expiration Dat	e		
Design Name Manufacturer/A Manufacturer	e: 10-407 & 1 ssembler	10-408 (30	psig) Designat HV	NBCert	# 11057 E	7 Expiration Dat 1/17/2024	e		
Design Name Manufacturer/A Manufacturer Design Type	e: 10-407 & 1 ssembler	10-408 (30	psig) Designat HV	NBCert	# 11057 E	7 Expiration Dat 1/17/2024	e		
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Establ Certified Value:5 Media - Test: Ste Set Pressure Der Blowdown Chara Flow Area Config Designed by: Aal	e: 10-407 & 1 ssembler lve] 10-407 & 10-40 Sec. HV at National E lishing Relieving Cap 35.00 PPH eam; Certified: Satur finition: Pop acteristics: Fixed guration: Nozzle/Full lberts Integrated Pipi	8 (30 psig) Board Testing L bacity: Flow Ca rated Water Lift ing Systems An	psig) Designat HV ab (Picaway) on Sept pacity, 3 valve averag nericas, Inc. {CNB}	NBCert	# 11057 E	7 Expiration Dat 1/17/2024	e		
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Establ Certified Value:5 Media - Test: Ste Set Pressure Der Blowdown Chara Flow Area Config Designed by: Aal	e: 10-407 & 1 ssembler lve] 10-407 & 10-40 Sec. HV at National E lishing Relieving Cap 35.00 PPH eam; Certified: Satur finition: Pop acteristics: Fixed guration: Nozzle/Full lberts Integrated Pipi Outlet Size	8 (30 psig) Board Testing L bacity: Flow Ca ated Water Lift ing Systems An Flow Area	Designat HV ab (Picaway) on Sept pacity, 3 valve averag nericas, Inc. {CNB} Orifice [designator] dia.	NBCert	# 11057	7 Expiration Dat 1/17/2024 Media	e Designator		

Design Name	e: 10-417/418	8 (RVW40)		NBCert	# 114	51	
Manufacturer/A	ssembler		Designat	ors		Expiration Date	
Manufacturer			HV			09/27/2026	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value:1 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa	lve] 10-417/418 (RV Sec. HV at National E lishing Relieving Cap 0.000 PPH/PSIA eam; Certified: Satur finition: Pop acteristics: Fixed guration: Nozzle/Full lberts Integrated Pipi	W40) Board Testing L Dacity: Flow Ca ated Water Lift ng Systems An	ab on March 2, 1999 pacity, Slope nericas, Inc. {CNB}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS	.75 NPS	0.306 in ²	0.624 in	0.156 in	20-80 psi	Steam	HV
Design Name	e: 10-600 (R\	/W60)		NBCert	# 1109	91	
Manufacturer/A	ssembler		Designat	ors		Expiration Date	
Manufacturer			HV			11/03/2024	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa	Ive] 10-600 (RVW60 Sec. HV at National E lishing Relieving Cap).630 Unitless eam; Certified: Satur finition: Pop acteristics: Fixed guration: Nozzle/Full lberts Integrated Pipi)) Board Testing L bacity: Flow Ca ated Water Lift ng Systems An	ab (Picaway) on June pacity, K nericas, Inc. {CNB}	18, 1987			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS	.75 NPS	0.535 in ²	0.825 in	0.336 in	15-160 psi	Steam	HV
1 NPS	1 NPS	0.866 in ²	1.05 in	0.429 in	15-160 psi	Steam	HV
1.25 NPS	1.25 NPS	1.498 in ²	1.381 in	0.554 in	15-160 psi	Steam	HV
1.5 NPS	1.5 NPS	2.038 in ²	1.611 in	0.659 in	15-160 psi	Steam	HV
2 NPS	2 NPS	3.359 in ²	2.068 in	0.89 in	15-160 psi	Steam	HV
Design Name	e: 10-610 (R\	/W61)		NBCert	# 111(03	
Manufacturer/A	ssembler		Designat	ors		Expiration Date	
Manufacturer			HV			08/13/2024	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: Sto Set Pressure De	Ive] 10-610 (RVW61 Sec. HV at National E lishing Relieving Cap).739 Unitless eam; Certified: Satur finition: Pop) Board Testing L Dacity: Flow Ca ated Water	ab (Picaway) on June pacity, K	3, 1987			

Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Aalberts Integrated Piping Systems Americas, Inc. {CNB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.75 NPS	1 NPS	0.535 in ²	0.825 in	0.336 in	15-160 psi	Steam	HV				
1 NPS	1.25 NPS	0.866 in ²	1.05 in	0.429 in	15-160 psi	Steam	HV				
1.25 NPS	1.5 NPS	1.498 in²	1.381 in	0.554 in	15-160 psi	Steam	HV				
1.5 NPS	2 NPS	2.038 in ²	1.611 in	0.659 in	15-160 psi	Steam	HV				
2 NPS	2.5 NPS	3.359 in ²	2.068 in	0.89 in	15-160 psi	Steam	HV				
Design Name: 10-624/634 (RVW62) NBCert # 11518											
Manufacturer/Assembler Designators Expiration Date											
Manufacturer			HV		11	/17/2024					
Design Type											
[Safety Relief Valve] 10-624/634 (RVW62) Capacity Tests: Sec. HV at National Board Testing Lab on March 13, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value:14.450 PPH/PSIA Media - Test: Steam; Certified: Saturated Water Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Aalberts Integrated Piping Systems Americas, Inc. {CNB}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.75 NPS	.75 NPS	0.463 in ²	0.768 in	0.19 in	30-150 psi	Steam	HV				
011 0 1 11 0	Design Name: 119 Series NBCert # 11361										
Design Name	e: 119 Series	•		NBCert ;	# 11361						
Design Name Manufacturer/A	e: 119 Series		Designato	NBCert a	# 11361 Ex	piration Date					
Design Name Manufacturer/A Manufacturer	e: 119 Series ssembler		Designato UV, V	NBCert a	# 11361 Ex 09	piration Date					
Design Name Manufacturer/A Manufacturer Design Type	e: 119 Series ssembler		Designato UV, V	NBCert a	# 11361 Ex 09	piration Date /29/2024					
Design Name Manufacturer/A Manufacturer Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa	e: 119 Series ssembler 19 Series Sec. UV, V at Nationa dishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full liberts Integrated Pipi	al Board Testing bacity: Flow Ca as, Steam Lift ng Systems Ar	Designato UV, V g Lab on March 5, 199 pacity, K nericas, Inc. {CNB}	NBCert ; ors	# 11361 Ex 09	piration Date					
Design Name Manufacturer/A Manufacturer Design Type [Safety Valve] 1 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa	e: 119 Series ssembler 19 Series Sec. UV, V at Nationa lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G ofinition: Pop acteristics: Adjustable guration: Nozzle/Full liberts Integrated Pipi Outlet Size	al Board Testing pacity: Flow Ca as, Steam Lift ng Systems Ar Flow Area	Designato UV, V g Lab on March 5, 199 pacity, K nericas, Inc. {CNB} Orifice [designator] dia.	NBCert ; ors 7 Lift	# 11361 Ex 09 Set Pressure Range	piration Date /29/2024 Media	Designator				
Design Name Manufacturer/A Manufacturer Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: St Set Pressure Des Blowdown Chara Flow Area Config Designed by: Aa Inlet Size 1.5 NPS	e: 119 Series ssembler 19 Series Sec. UV, V at Nationa dishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full liberts Integrated Pipi Outlet Size 2.5 NPS	al Board Testing pacity: Flow Ca as, Steam Lift ng Systems Ar Flow Area 1.358 in	Designato UV, V g Lab on March 5, 199 pacity, K nericas, Inc. {CNB} Orifice [designator] dia. [J] 1.315 in	NBCert ; ors 7 Lift 0.329 in	# 11361 Ex 09 Set Pressure Range 15-250 psi	piration Date /29/2024 Media Air	Designator				
Design Name Manufacturer/A Manufacturer Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa Inlet Size 1.5 NPS 1.5 NPS	e: 119 Series ssembler 19 Series Sec. UV, V at Nationa dishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full liberts Integrated Pipi Outlet Size 2.5 NPS 2.5 NPS	al Board Testing bacity: Flow Ca as, Steam Lift ng Systems Ar Flow Area 1.358 in 1.358 in	Designato UV, V g Lab on March 5, 199 pacity, K nericas, Inc. {CNB} Orifice [designator] dia. [J] 1.315 in [J] 1.315 in	NBCert 7	 # 11361 Ex 09 Set Pressure Range 15-250 psi 15-250 psi 	piration Date /29/2024 Media Air Steam	Designator				
Design Name Manufacturer/A Manufacturer Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: (Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa Inlet Size 1.5 NPS 1.5 NPS 1.5 NPS	e: 119 Series ssembler 19 Series Sec. UV, V at Nationa lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G offinition: Pop acteristics: Adjustable guration: Nozzle/Full liberts Integrated Pipi Outlet Size 2.5 NPS 2.5 NPS 2.5 NPS	al Board Testing bacity: Flow Ca as, Steam Lift ng Systems Ar Flow Area 1.358 in 1.358 in 1.358 in	Designato UV, V g Lab on March 5, 199 pacity, K nericas, Inc. {CNB} Orifice [designator] dia. [J] 1.315 in [J] 1.315 in [J] 1.315 in	NBCert 7	 # 11361 Ex 09 Set Pressure 15-250 psi 15-250 psi 15-250 psi 	piration Date /29/2024 /Air Air Steam	Designator UV UV V				
Design Name Manufacturer/A Manufacturer Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa Inlet Size 1.5 NPS 1.5 NPS 1.5 NPS 2-3 NPS	e: 119 Series ssembler 19 Series Sec. UV, V at Nationa lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G acteristics: Adjustable guration: Nozzle/Full liberts Integrated Pipi Outlet Size 2.5 NPS 2.5 NPS 2.5 NPS 3 NPS	al Board Testing pacity: Flow Ca as, Steam Lift ng Systems Ar Flow Area 1.358 in 1.358 in 1.358 in 1.358 in 1.358 in	Designato UV, V g Lab on March 5, 199 pacity, K Orifice [designator] dia. [J] 1.315 in [J] 1.315 in [J] 1.315 in [J] 1.35 in	NBCert 7 Drs 7 7 Lift 0.329 in 0.329 i	 11361 Ex 09 30 5250 psi 15-250 psi 15-250 psi 	piration Date /29/2024 / Media Air Steam Steam	Designator UV UV				
Design Name Manufacturer/A Manufacturer Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa Inlet Size 1.5 NPS 1.5 NPS 1.5 NPS 2-3 NPS 2-3 NPS	e: 119 Series ssembler 19 Series Sec. UV, V at Nationa lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full liberts Integrated Pipi Outlet Size 2.5 NPS 2.5 NPS 2.5 NPS 3 NPS 3 NPS	al Board Testing pacity: Flow Ca as, Steam Lift ng Systems Ar Flow Area 1.358 in 1.358 in 1.358 in 1.926 in ²	Designato UV, V g Lab on March 5, 199 pacity, K Orifice [designator] dia. [J] 1.315 in [J] 1.315 in [J] 1.315 in [J] 1.366 in	NBCert ; ors 7 Lift 0.329 in	 4 11361 Ex 09 30 Set Pressure 15-250 psi 	piration Date /29/2024 / Media Air Steam Steam Air Steam	Designator UV				
Design Name Manufacturer/A Manufacturer Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa Inlet Size 1.5 NPS 1.5 NPS 1.5 NPS 2-3 NPS 2-3 NPS 2-3 NPS	e: 119 Series ssembler 19 Series Sec. UV, V at Nationa dishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full liberts Integrated Pipi 2.5 NPS 2.5 NPS 2.5 NPS 3 NPS 3 NPS 3 NPS	al Board Testing bacity: Flow Ca as, Steam Elft ng Systems Ar Flow Area 1.358 in 1.358 in 1.358 in 1.926 in ² 1.926 in ²	Designato UV, V g Lab on March 5, 199 pacity, K Orifice [designator] dia. [J] 1.315 in [J] 1.315 in [J] 1.315 in [J] 1.356 in [K] 1.566 in	NBCert 7 Drs 7 Lift 0.329 in 0.329 in 0.329 in 0.392 in 0.392 in 0.392 in	# 11361 Ex 09 09 09 Set Pressure 0 15-250 psi 1	piration Date /29/2024 / Media Air Steam Air Steam Air Steam	Designator UV V				
Design Name Manufacturer/A Manufacturer Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa Inlet Size 1.5 NPS 1.5 NPS 1.5 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2.5-4 NPS	e: 119 Series ssembler 19 Series Sec. UV, V at Nationa lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G acteristics: Adjustable guration: Nozzle/Full liberts Integrated Pipi Outlet Size 2.5 NPS 2.5 NPS 2.5 NPS 3 NPS 3 NPS 3 NPS 4 NPS	al Board Testing bacity: Flow Ca as, Steam Elift ng Systems Ar Flow Area 1.358 in 1.358 in 1.358 in 1.926 in ² 1.926 in ² 1.926 in ² 2.99 in ²	Designato UV, V g Lab on March 5, 199 pacity, K Orifice [designator] dia. [J] 1.315 in [J] 1.315 in [J] 1.315 in [J] 1.356 in [K] 1.566 in [K] 1.566 in [K] 1.566 in	NBCert 7	# 11361 Ex 09 09 09 Set Pressure 1 15-250 psi 1	piration Date /29/2024 / Media Air Steam Steam Air Steam Steam Steam	Designator UV UV				

2.5-4 NPS	4 NPS	2.99 in ²	[L] 1.951 in	0.488 in	15-250 psi	Steam	V					
3-4 NPS	4 NPS	3.774 in	[M] 2.192 in	0.548 in	15-250 psi	Air	UV					
3-4 NPS	4 NPS	3.774 in	[M] 2.192 in	0.548 in	15-250 psi	Steam	UV					
3-4 NPS	4 NPS	3.774 in	[M] 2.192 in	0.548 in	15-250 psi	Steam	V					
4 NPS	6 NPS	4.55 in ²	[N] 2.407 in	0.602 in	15-250 psi	Air	UV					
4 NPS	6 NPS	4.55 in ²	[N] 2.407 in	0.602 in	15-250 psi	Steam	UV					
4 NPS	6 NPS	4.55 in ²	[N] 2.407 in	0.602 in	15-250 psi	Steam	V					
4 NPS	6 NPS	6.692 in	[P] 2.919 in	0.73 in	15-250 psi	Air	UV					
4 NPS	6 NPS	6.692 in	[P] 2.919 in	0.73 in	15-250 psi	Steam	UV					
4 NPS	6 NPS	6.692 in	[P] 2.919 in	0.73 in	15-250 psi	Steam	V					
6 NPS	8 NPS	11.593 in	[Q] 3.842 in	0.961 in	15-250 psi	Air	UV					
6 NPS	8 NPS	11.593 in	[Q] 3.842 in	0.961 in	15-250 psi	Steam	UV					
6 NPS	8 NPS	11.593 in	[Q] 3.842 in	0.961 in	15-250 psi	Steam	V					
6 NPS	8 NPS	16.786 in	[R] 4.623 in	1.156 in	15-250 psi	Air	UV					
6 NPS	8 NPS	16.786 in	[R] 4.623 in	1.156 in	15-250 psi	Steam	UV					
6 NPS	8 NPS	16.786 in	[R] 4.623 in	1.156 in	15-250 psi	Steam	V					
Design Name	e: 12-205 (R ^v	VS12)		NBCert #	# 11114							
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date						
Manufacturer			HV		11	/16/2026						
Design Type												
[Safety Valve] 1 Capacity Tests: 5 Method of Estab Certified Value:2 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Aa	2-205 (RVS12) Sec. HV at Ohio Statu lishing Relieving Cap 500.0 PPH eam; Certified: Stear finition: Pop acteristics: Fixed guration: Nozzle/Full lberts Integrated Pipi	e University (R bacity: Flow Ca n Lift ng Systems Ar	[Safety Valve] 12-205 (RVS12) Capacity Tests: Sec. HV at Ohio State University (Robinson Laboratory) on April 26, 1964 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average Certified Value:2500.0 PPH Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator					
Inlet Size 2 NPS	Outlet Size 2 NPS	Flow Area 2.761 in ²	Orifice [designator] dia. 1.875 in	Lift 0.64 in	Set Pressure Range 15-15 psi	Media Steam	Designator HV					
Inlet Size 2 NPS Design Name	Outlet Size 2 NPS e: 12-206 (R)	Flow Area 2.761 in ² VS12)	Orifice [designator] dia. 1.875 in	Lift 0.64 in NBCert #	Set Pressure Range 15-15 psi # 11125	Media Steam	Designator HV					
Inlet Size 2 NPS Design Name Manufacturer/A	Outlet Size 2 NPS e: 12-206 (R ^v ssembler	Flow Area 2.761 in ² √S12)	Orifice [designator] dia. 1.875 in Designato	Lift 0.64 in NBCert #	Set Pressure Range 15-15 psi # 11125 Ex	Media Steam	Designator HV					
Inlet Size 2 NPS Design Name Manufacturer/A Manufacturer	Outlet Size 2 NPS e: 12-206 (R ssembler	Flow Area 2.761 in² √S12)	Orifice [designator] dia. 1.875 in Designato HV	Lift 0.64 in NBCert #	Set Pressure Range 15-15 psi # 11125 Ex 07	Media Steam piration Date	Designator HV					
Inlet Size 2 NPS Design Name Manufacturer/A Manufacturer Design Type	Outlet Size 2 NPS e: 12-206 (R' ssembler	Flow Area 2.761 in² VS12)	Orifice [designator] dia. 1.875 in Designato HV	Lift 0.64 in NBCert #	Set Pressure Range 15-15 psi # 11125 Ex 07	Media Steam piration Date /23/2024	Designator HV					

Designed by: Aalberts Integrated Piping Systems Americas, Inc. {CNB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
2.5 NPS	2.5 NPS	3.976 in ²	2.25 in	0.56 in	15-15 psi	Steam	HV
Design Name	: 12-208 (R\	/S12)		NBCert #	4 11136		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			HV		11/	16/2026	
Design Type							
[Safety Valve] 12 Capacity Tests: S Method of Establ Certified Value:4 Media - Test: Ste Set Pressure Det Blowdown Chara Flow Area Config Designed by: Aal	2-208 (RVS12) Sec. HV at National B ishing Relieving Cap 100.0 PPH eam; Certified: Stean finition: Pop cteristics: Fixed juration: Nozzle/Full berts Integrated Pipi	oard Testing La acity: Flow Cap n Lift ng Systems Arr	ab (Picaway) on Septe bacity, 3 valve average nericas, Inc. {CNB}	ember 5, 1979			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
3 NPS	3 NPS	6.56 in²	2.89 in	0.42 in	15-15 psi	Steam	HV
Design Name	: 13-101 (R\	/S13T)		NBCert #	<i>±</i> 11147		
M £		,	Desire				_
Manufacturer/A	ssembler	_		ors -	EX 11		_
			ΠV		11/	1772020	
[Safety Valve] 13 Capacity Tests: S Method of Establ Certified Value:4 Media - Test: Ste Set Pressure Det Blowdown Chara Flow Area Config Designed by: Aal	8-101 (RVS13T) Sec. HV at Ohio State ishing Relieving Cap 10.00 PPH eam; Certified: Stean finition: Pop cteristics: Fixed juration: Nozzle/Full berts Integrated Pipi	e University (Ro acity: Flow Cap n Lift ng Systems Am	obinson Laboratory) or bacity, 3 valve average nericas, Inc. {CNB}	n August 27, 1961			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS		0.442 in ²	0.75 in	0.21 in	15-15 psi	Steam	HV
Design Name	: 13-202 (R\	/S13)		NBCert #	¢ 11169		
Manufacturer/As	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			HV		03/	24/2027	
Design Type							
[Safety Valve] 13 Capacity Tests: S Method of Establ Certified Value:64 Media - Test: Ste Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aal	3-202 (RVS13) Sec. HV at Ohio State ishing Relieving Cap 43.00 PPH sam; Certified: Stean finition: Pop cteristics: Fixed juration: Nozzle/Full berts Integrated Pini	e University (Ro acity: Flow Cap 1 Lift	obinson Laboratory) or pacity, 3 valve average nericas, Inc. {CNB}	n June 19, 1962			

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1 NPS	0.442 in ²	0.75 in	0.37 in	15-15 psi	Steam	HV
Design Name	: 13-211 (R\	/S13)		NBCert /	4 11170		
Manufacturer/As	ssembler		Designat	ors	Ex	piration Date	
Manufacturer			HV		06	/21/2026	
Design Type							
[Safety Valve] 13 Capacity Tests: S Method of Establ Certified Value:47 Media - Test: Ste Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aal	B-211 (RVS13) ec. HV at National E ishing Relieving Cap 75.00 PPH eam; Certified: Stean inition: Pop cteristics: Fixed uration: Nozzle/Full berts Integrated Pipi	Board Testing La acity: Flow Cap n Lift ng Systems An	ab (Picaway) on June pacity, 3 valve averag nericas, Inc. {CNB}	13, 1984 e			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS	0.75 NPS	0.442 in ²	0.75 in	0.244 in	15-0 psi	Steam	HV
Design Name	: 13-213 (R\	/S13)		NBCert #	¥ 11181		
		,					
Manufacturer/As	ssembler		Designation	ors	Ex	piration Date	
Manufacturer			HV		11,	/17/2024	_
[Safety Valve] 13 Capacity Tests: S Method of Establ Certified Value:12 Media - Test: Ste Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aal	B-213 (RVS13) bec. HV at National B ishing Relieving Cap 200.0 PPH bam; Certified: Stean inition: Pop cteristics: Fixed uration: Nozzle/Full berts Integrated Pipi	oard Testing La acity: Flow Cap n Lift ng Systems An	ab (Picaway) on May pacity, 3 valve averag nericas, Inc. {CNB}	13, 1973 e			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25 NPS	1.5 NPS	0.785 in²	1 in	0.57 in	15-15 psi	Steam	HV
Design Name	: 13-214 (R\	/S13)		NBCert /	¥ 11192		
Manufacturer/As	ssembler		Designate	ors	Ex	piration Date	
Manufacturer			HV		11,	/17/2024	
Design Type							
[Safety Valve] 13 Capacity Tests: S Method of Establ Certified Value: 19 Media - Test: Ste Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aal	B-214 (RVS13) ec. HV at National B ishing Relieving Cap 200.0 PPH eam; Certified: Stean inition: Pop cteristics: Fixed uration: Nozzle/Full	oard Testing La acity: Flow Cap 1 Lift	ab (Picaway) on May pacity, 3 valve averag nericas, Inc. {CNB}	13, 1973 e			

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 NPS	1.227 in²	1.25 in	0.79 in	15-15 psi	Steam	HV
Design Name	e: 14-205 (R\	/S14)		NBCert #	# 11215		
Manufacturer/A	ssembler		Designat	ors	E	piration Date	
Manufacturer			HV		11	/16/2026	
Design Type							
[Safety Valve] 14 Capacity Tests: S Method of Establ Certified Value:3 Media - Test: Ste Set Pressure Det Blowdown Chara Flow Area Config Designed by: Aal	I-205 (RVS14) Sec. HV at Ohio State ishing Relieving Cap 150.0 PPH eam; Certified: Stean finition: Pop cteristics: Fixed juration: Nozzle/Full berts Integrated Pipi	e University (Ro acity: Flow Cap n Lift ng Systems An	obinson Laboratory) o bacity, 3 valve averag nericas, Inc. {CNB}	on January 29, 1965 Je			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
2 NPS	2 NPS	2.238 in ²	1.688 in	0.83 in	15-15 psi	Steam	HV
Design Name	• 14-207 (R\	(\$14)		NBCert #	± 11237		
Doolgin Haine			_		, 11207		
Manufacturer/As	ssembler		Designat	ors	E	piration Date	
Manufacturer			HV		02	2/09/2026	
Design Type	1 207 (D)(S14)						
[Safety Valve] 12 Capacity Tests: S Method of Establ Certified Value:60 Media - Test: Ste Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aal	I-207 (RVS14) Sec. HV at Ohio State ishing Relieving Cap 343.0 PPH eam; Certified: Stean finition: Pop cteristics: Fixed juration: Nozzle/Full berts Integrated Pipi	e University (Ro acity: Flow Cap n Lift ng Systems An	obinson Laboratory) c pacity, 3 valve averag nericas, Inc. {CNB}	on January 29, 1965 e			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
3-3 NPS	3 NPS	5.155 in ²	2.562 in	0.64 in	15-15 psi	Steam	HV
Design Name	:: 15-112 (R\	/A15)		NBCert #	# 11248		
Manufacturer/As	ssembler		Designat	ors	E>	piration Date	
Manufacturer			UV		07	//31/2024	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 0 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: Aal	ve] 15-112 (RVA15) Sec. UV at National E ishing Relieving Cap .738 SCFM/PSIA /Gas; Certified: Air, G finition: Pop cteristics: Fixed juration: Nozzle/Full berts Integrated Pipi	Coard Testing La acity: Flow Cap Gas Lift	ab (Picaway) on April pacity, Slope nericas, Inc. {CNB}	17, 1975			

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.25 NPS			0.265 in		15-250 psi	Air	UV
Design Name	: 15-115/117	7 (RVA15)		NBCert	:# 11259		
Manufacturer/As	ssembler		Designa	tors	Ex	piration Date	
Manufacturer			UV		03	/16/2028	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Air, Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aal	ve] 15-115/117 (RV/ ec. UV at National E ishing Relieving Cap .849 SCFM/PSIA /Gas; Certified: Air, C inition: Pop cteristics: Fixed uration: Nozzle/Full berts Integrated Pipi	A15) Board Testing La Bacity: Flow Cap Bas Lift ng Systems An	ab (Picaway) on Sep bacity, Slope nericas, Inc. {CNB}	tember 6, 1979			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.375-0.5 NPS		0.145 in ²	0.43 in		15-250 psi	Air	UV
	. 4E 440 (D)	(145)			щ <u>11070</u>		
Design Name	9. ID-IIO (R)	/A15)		NDCen	.# 11372		
Manufacturer/As	ssembler		Designa	tors	Ex	piration Date	
Manufacturer			UV		08	/28/2025	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 3 Media - Test: Ain Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aal	ve] 15-118 (RVA15) sec. UV at National E ishing Relieving Cap .280 SCFM/PSIA /Gas; Certified: Air, G inition: Pop cteristics: Fixed uration: Nozzle/Full berts Integrated Pipi	Board Testing La acity: Flow Cap Bas Lift ng Systems An	ab on November 5, 1 bacity, Slope nericas, Inc. {CNB}	997			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS		0.219 in ²	0.528 in	0.132 in	15-250 psi	Air	UV
Design Name	: 15-119 (R\	/A15)		NBCert	:# 11383		
Manufacturer/As	ssembler		Designa	tors	Ex	piration Date	
Manufacturer			UV		10	/23/2025	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 6 Media - Test: Air Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aal	ve] 15-119 (RVA15) bec. UV at National E ishing Relieving Cap .780 SCFM/PSIA /Gas; Certified: Air, C inition: Pop cteristics: Fixed uration: Nozzle/Full berts Integrated Pipi	Board Testing La acity: Flow Cap Bas Lift	ab on November 5, 1 bacity, Slope nericas, Inc. {CNB}	997			

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.458 in ²	0.764 in	0.191 in	15-250 psi	Air	UV
Design Name	: 17-402 (R\	/W17)		NBCert ;	# 11440		
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date	
Manufacturer			HV		03	/06/2027	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 5 Media - Test: Ste Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aal	ve] 17-402 (RVW17 ec. HV at National E ishing Relieving Cap .200 PPH/PSIA aam; Certified: Satura inition: Pop cteristics: Fixed uration: Nozzle/Full berts Integrated Pipi) Board Testing La acity: Flow Cap ated Water Lift ng Systems An	ab on March 2, 1999 bacity, Slope nericas, Inc. {CNB}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS	0.75 NPS	0.173 in²	0.47 in	0.117 in	75-150 psi	Steam	HV
Design Name	: 29-102, 29	-202, 29-30)2	NBCert #	4 11293		
Manufacturer/As	ssembler		Designate	ors	Ex	piration Date	
Manufacturer			UV, V		11	/17/2024	
Design Type							
[Safety Valve] 29 Capacity Tests: 5 Method of Establ Certified Value: 3 Media - Test: Ste Set Pressure Det Blowdown Chara Flow Area Config Designed by: Aal	9-102, 29-202, 29-30 acc. UV, V at Nationa ishing Relieving Cap .596 PPH/PSIA; (alto cam; Certified: Air, Ga inition: Pop cteristics: Adjustable uration: Curtain Area berts Integrated Pipi	2 Il Board Testing acity: Flow Cap ernate medium as, Steam a ng Systems An	J Lab (Picaway) on No bacity, Slope): 1.280 SCFM/PSIA hericas, Inc. {CNB}	ovember 30, 1982			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.375-0.75 NPS	1 NPS	0.196 in ²	0.5 in	0.058 in	30-205 psi	Air	UV
0.375-0.75 NPS	1 NPS	0.196 in ²	0.5 in	0.058 in	30-205 psi	Steam	V
0.375-0.75 NPS	1 NPS	0.196 in ²	0.5 in	0.058 in	30-205 psi	Steam	UV
Design Name	: 29-303, 29	-402, 29-50)1	NBCert 7	¥ 11305		
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date	
Manufacturer			UV, V		07	/31/2024	

[Safety Valve] 29-303, 29-402, 29-501 Capacity Tests: Sec. UV, V at National Board Testing Lab (Picaway) on February 14, 1983 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 7.230 PPH/PSIA; (alternate medium): 2.570 SCFM/PSIA Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Curtain Area

Designed by: Aalberts Integrated Piping Systems Americas, Inc. {CNB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.25 NPS	1.25 NPS	0.203 in ²	0.737 in	0.08 in	30-210 psi	Air	UV
0.75-1.25 NPS	1.25 NPS	0.203 in ²	0.737 in	0.08 in	30-210 psi	Steam	V
0.75-1.25 NPS	1.25 NPS	0.203 in ²	0.737 in	0.08 in	30-210 psi	Steam	UV

Design Name:	500 Series	NBCert #	11462
Manufacturer/Assem	bler	Designators	Expiration Date
Manufacturer		UV	12/05/2027

Design Type

[Safety Valve] 500 Series

Capacity Tests: Sec. UV at National Board Testing Lab on June 12, 2000

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.861 Unitless

Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam

Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Single Ring)

Flow Area Configuration: Nozzle/Full Lift

Designed by: Aalberts Integrated Piping Systems Americas, Inc. {CNB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75, 1 NPS	0.129 in ²	[D] 0.406 in	0.102 in	15-2000 psi	Air	UV
0.5-0.75 NPS	.75, 1 NPS	0.129 in ²	[D] 0.406 in	0.102 in	15-2000 psi	Steam	UV
0.75-1 NPS	1.25 NPS	0.229 in ²	[E] 0.539 in	0.135 in	15-2000 psi	Air	UV
0.75-1 NPS	1.25 NPS	0.229 in ²	[E] 0.539 in	0.135 in	15-2000 psi	Steam	UV
1-1.25 NPS	1.5 NPS	0.359 in ²	[F] 0.676 in	0.169 in	15-2000 psi	Air	UV
1-1.25 NPS	1.5 NPS	0.359 in ²	[F] 0.676 in	0.169 in	15-2000 psi	Steam	UV
1.25-1.5 NPS	2 NPS	0.589 in ²	[G] 0.866 in	0.217 in	15-2000 psi	Air	UV
1.25-1.5 NPS	2 NPS	0.589 in ²	[G] 0.866 in	0.217 in	15-2000 psi	Steam	UV
1.5-2 NPS	2.5 NPS	0.919 in²	[H] 1.082 in	0.271 in	15-2000 psi	Air	UV
1.5-2 NPS	2.5 NPS	0.919 in ²	[H] 1.082 in	0.271 in	15-2000 psi	Steam	UV
2 NPS	3 NPS	1.504 in ²	[J] 1.384 in	0.346 in	15-2000 psi	Air	UV
2 NPS	3 NPS	1.504 in ²	[J] 1.384 in	0.346 in	15-2000 psi	Steam	UV

Design Name:	500 Series (Liquids)	1	NBCert # 114	73
Manufacturer/Assem	bler	Designators		Expiration Date
Manufacturer		UV		07/31/2027

[Safety Relief Valve] 500 Series (Liquids) Capacity Tests: Sec. UV at National Board Testing Lab on February 25, 2000 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.689 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Aalberts Integrated Piping Systems Americas, Inc. {CNB}

Orifice Set Pressure **Inlet Size Outlet Size** Flow Area Lift Media Designator [designator] dia. Range 0.129 in² UV 0.5-0.75 NPS .75, 1 NPS 0.102 in 15-1000 psi Water [D] 0.406 in 0.75-1 NPS 1.25 NPS 0.229 in² [E] 0.539 in 0.135 in 15-1000 psi Water UV 1-1.25 NPS 1.5 NPS 0.359 in² 15-1000 psi Water UV [F] 0.676 in 0.169 in 1.25-1.5 NPS 2 NPS 0.589 in² [G] 0.866 in 0.217 in 15-1000 psi Water UV 1.5-2 NPS 15-1000 psi Water UV 2.5 NPS 0.919 in² [H] 1.082 in 0.271 in 2 NPS 3 NPS Water UV 1.504 in² [J] 1.384 in 0.346 in 15-1000 psi

ADVANCE VALVE, INC. (ADV)

St. Louis, MO 63026United States

This Company Manufactures or Assembles:

NBCert # Manufacturer/Assembler Designators **Expiration Date** UV 06/06/2024 Assembler Design Type [Safety Relief Valve] 437 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 8, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.020 SCFM/PSIA; (alternate medium): 2.870 PPH/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: LESER GmbH & Co. KG {LES} Orifice Set Pressure **Outlet Size** Media **Inlet Size** Flow Area Lift Designator [designator] dia. Range 0.375-1 NPS .5 - 1 NPS 0.082 in² 0.394 in 0.055 in 15-2610 psi Air UV 0.082 in² 0.375-1 NPS .5 - 1 NPS 0.394 in 0.055 in 15-2610 psi Steam UV NBCert # Design Name: Manufacturer/Assembler Designators Expiration Date Assembler UV 09/17/2024

Nameplate Abbreviation: ADVANCE VALVE

1.5 NPS

2.5,3 NPS

1.667 in²

1.457 in

[Safety Relief Valve] 438 Sub Types 481, 439 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 12, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.904 SCFM/PSIA; (alternate medium): 2.530 PPH/PSIA Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.375-1 NPS	.5 - 1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Air	UV
0.375-1 NPS	.5 - 1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Steam	UV
Design Name	e: 438 Sub T	ypes 481, 4	39, Liquids	NBCert	# 37202		
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date)
Assembler			UV		10	0/11/2024	
Design Type							
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 3 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Alve] 438 Sub Types Sec. UV at Leser Gre Jishing Relieving Ca 1.490 GPM/SQ.RT. F ater/Liquid; Certified finition: First Steady acteristics: Fixed guration: Curtain Are SER GmbH & Co. K	481, 439, Liqui bh & Co., KG o pacity: Flow Ca SID Liquid Stream a G {LES}	ds on November 23, 2001 pacity, Flow Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	0.5-1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Water	UV
Design Name	e: 441/442/4	44		NBCert	# 37044		
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	•
Assembler			UV		0	5/26/2026	
Design Type							
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Ive] 441/442/444 Sec. UV at Leser Grr Jishing Relieving Caj 0.699 Unitless r/Gas, Steam; Certifi- finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K	nbh & Co., KG c pacity: Flow Ca ed: Air, Gas, St e Discharge Lift G {LES}	on February 17, 1997 pacity, K eam				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5,2 NPS	0.644 in²	0.906 in	0.277 in	15-715 psi	Air	UV
1 NPS	1.5,2 NPS	0.644 in ²	0.906 in	0.277 in	15-715 psi	Steam	UV
1.25-1.5 NPS	2 NPS	1.024 in ²	1.142 in	0.349 in	15-715 psi	Air	UV
1.25-1.5 NPS	2 NPS	1.024 in ²	1.142 in	0.349 in	15-715 psi	Steam	UV

0.446 in

15-715 psi

Air

UV

1.5 NPS	2.5,3 NPS	1.667 in ²	1.457 in	0.446 in	15-715 psi	Steam	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.554 in	15-715 psi	Air	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.554 in	15-715 psi	Steam	UV
2.5-3 NPS	4 NPS	4.383 in ²	2.362 in	0.723 in	15-500 psi	Air	UV
2.5-3 NPS	4 NPS	4.383 in ²	2.362 in	0.723 in	15-500 psi	Steam	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.891 in	15-500 psi	Air	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.891 in	15-500 psi	Steam	UV
4 NPS	6 NPS	10.304 in²	3.622 in	1.108 in	15-418 psi	Air	UV
4 NPS	6 NPS	10.304 in²	3.622 in	1.108 in	15-418 psi	Steam	UV
5 NPS	8 NPS	11.692 in ²	3.858 in	1.181 in	15-315 psi	Air	UV
5 NPS	8 NPS	11.692 in ²	3.858 in	1.181 in	15-315 psi	Steam	UV
6 NPS	10 NPS	19.021 in²	4.921 in	1.506 in	15-290 psi	Air	UV
6 NPS	10 NPS	19.021 in²	4.921 in	1.506 in	15-290 psi	Steam	UV
8 NPS	12 NPS	33.143 in²	6.496 in	1.988 in	15-430 psi	Air	UV
8 NPS	12 NPS	33.143 in²	6.496 in	1.988 in	15-430 psi	Steam	UV
10 NPS	14 NPS	48.695 in ²	7.874 in	2.409 in	15-300 psi	Air	UV
10 NPS	14 NPS	48.695 in ²	7.874 in	2.409 in	15-300 psi	Steam	UV
12 NPS	16 NPS	67.229 in²	9.252 in	2.831 in	15-264 psi	Air	UV
12 NPS	16 NPS	67.229 in ²	9.252 in	2.831 in	15-264 psi	Steam	UV
16 NPS	20 NPS	105.94 in²	11.614 in	3.554 in	15-175 psi	Air	UV
16 NDS	20 NPS	105.94 in²	11.614 in	3.554 in	15-175 psi	Steam	UV
10 NF3							
Design Name	e: 441/442/44	44 liquids		NBCert ;	# 37055		
Design Name Manufacturer/A	e: 441/442/44 ssembler	44 liquids	Designato	NBCert ; ors	# 37055 Ex	piration Date	_
Design Name Manufacturer/A Assembler	e: 441/442/44 ssembler	44 liquids	Designato	NBCert a	# 37055 Ex 02	piration Date	
Design Name Manufacturer/A Assembler Design Type	e: 441/442/44 ssembler	44 liquids	Designato	NBCert a	# 37055 Ex 02	piration Date /02/2027	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm dishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ke	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES}	Designato UV n September 6, 1996 bacity, K	NBCert a	# 37055 Ex 02	piration Date /02/2027	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: S Method of Estab Certified Value: (Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm dishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ke Outlet Size	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area	Designato UV n September 6, 1996 bacity, K	NBCert a	# 37055 Ex 02 02	piration Date /02/2027 Media	Designator
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: S Method of Estab Certified Value: (0 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm lishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ke Outlet Size 1.5,2 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ²	Designato UV In September 6, 1996 bacity, K Orifice [designator] dia. 0.906 in	NBCert a	# 37055 Ex 02/ Set Pressure Range 15-715 psi	piration Date /02/2027 Media Water	Designator UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm dishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ke Outlet Size 1.5,2 NPS 2 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ²	Designato UV n September 6, 1996 bacity, K Orifice [designator] dia. 0.906 in 1.142 in	NBCert a prs Lift 0.277 in 0.349 in	 # 37055 Ex 02/ Set Pressure Range 15-715 psi 15-715 psi 	piration Date /02/2027 Media Water Water	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm lishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: ofinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS	44 liquids 44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.667 in ²	Designato UV In September 6, 1996 bacity, K Orifice [designator] dia. 0.906 in 1.142 in 1.457 in	NBCert 7 ors Lift 0.277 in 0.349 in 0.446 in	 # 37055 Ex 02. 702. 703. 704. <li< td=""><td>piration Date /02/2027 / Media Water Water Water Water</td><td>Designator UV UV</td></li<>	piration Date /02/2027 / Media Water Water Water Water	Designator UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 9 Method of Estab Certified Value: 0 Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 1.5 NPS 2 NPS	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm lishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: ateristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS 3 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.667 in ² 2.576 in ²	Designato UV In September 6, 1996 Doacity, K Orifice (designator] dia. 0.906 in 1.142 in 1.457 in 1.811 in	NBCert 7	 37055 Ex 02, 7,715 psi 15-715 psi 15-715 psi 15-715 psi 15-715 psi 	piration Date /02/2027 / Media Water Water Water Water Water Water	Designator UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 1.5 NPS 2 NPS 2.5-3 NPS	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm lishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ku Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS 3 NPS 4 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.667 in ² 2.576 in ² 4.383 in ²	Designato UV In September 6, 1996 bacity, K Orifice [designator] dia. 0.906 in 1.142 in 1.457 in 1.811 in 2.362 in	NBCert 7 prs Lift 0.277 in 0.349 in 0.446 in 0.554 in 0.554 in 0.723 in	 37055 Ex 02 72 73 74 <l< td=""><td>piration Date /02/2027 //////////////////////////////</td><td>Designator UV UV</td></l<>	piration Date /02/2027 //////////////////////////////	Designator UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 1.5 NPS 2 NPS 2.5-3 NPS 3 NPS	e: 441/442/44 ssembler al/442/444 liquids Sec. UV at Leser Gm dishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ke Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS 3 NPS 4 NPS 5 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.024 in ² 2.576 in ² 4.383 in ² 6.666 in ²	Designato UV In September 6, 1996 Doacity, K Orifice (July) In September 6, 1996 In September 7, 1000	NBCert 7 Prs Lift 0.2777 in 0.349 in 0.446 in 0.554 in 0.723 in 0.891 in	# 37055 Ex 02 02 02 Set Pressure 1 15-715 psi 1 15-500 psi 1	piration Date /02/2027 //////////////////////////////	Везідпатог UV UV UV UV UV UV UV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 1.5 NPS 2 NPS 2.5-3 NPS 3 NPS 4 NPS	e: 441/442/44 ssembler al/442/444 liquids Sec. UV at Leser Gm dishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: difinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS 3 NPS 4 NPS 5 NPS 6 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.667 in ² 2.576 in ² 4.383 in ² 6.666 in ² 10.304 in ²	Designato UV In September 6, 1996 Doacity, K Orifice (Jacobin 1.142 in 1.457 in 1.811 in 2.362 in 2.913 in 3.622 in	NBCert 7 ors Lift 0.277 in 0.349 in 0.446 in 0.554 in 0.554 in 0.723 in 0.891 in 1.108 in	# 37055 Ex 02 02 02 Set Pressure 1 15-715 psi 1 15-500 psi 1 15-500 psi 1 15-418 psi 1	piration Date (02/2027 Media Water Water Water Water Water Water Water Water Water	Note Note Note
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 1.5 NPS 2 NPS 2.5-3 NPS 3 NPS 4 NPS 5 NPS	e: 441/442/44 ssembler A1/442/444 liquids Sec. UV at Leser Gm lishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: distribution: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2 S,3 NPS 3 NPS 4 NPS 5 NPS 6 NPS 6 NPS 8 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.024 in ² 4.383 in ² 6.666 in ² 10.304 in ² 11.692 in ²	Designato UV In September 6, 1996 Doacity, K Orifice (Insertion of the second o	NBCert : ors Lift 0.277 in 0.349 in 0.446 in 0.554 in 0.554 in 0.723 in 0.891 in 1.108 in 1.108 in 1.181 in	# 37055 Ex 02 02 02 Set Pressure 1 15-715 psi 1 15-500 psi 1 15-510 psi 1 15-315 psi 1	piration Date (02/2027 Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator UV

6 NPS	10 NPS	19.021 in²	4.921 in	1.506 in	15-290 psi	Water	UV
8 NPS	12 NPS	33.143 in ²	6.496 in	1.988 in	15-430 psi	Water	UV
10 NPS	14 NPS	48.695 in ²	7.874 in	2.409 in	15-300 psi	Water	UV
12 NPS	16 NPS	67.229 in ²	9.252 in	2.831 in	15-264 psi	Water	UV
16 NPS	20 NPS	105.94 in²	11.614 in	3.554 in	15-175 psi	Water	UV
Design Nam	e: 459/462			NBCert	# 37112		
Manufacturer//	Assembler		Designa	itors	E	xpiration Date	9
Assembler			UV		12	2/08/2026	
Design Type							
Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure D Blowdown Char Flow Area Conf Designed by: Ll	Sec. UV at National blishing Relieving Ca 0.811 Unitless ir/Gas, Steam; Certii efinition: Initial Audib racteristics: Fixed iguration: Nozzle/Fu ESER GmbH & Co. I	Board Testing I apacity: Flow Ca fied: Air, Gas, Sl le Discharge II Lift KG {LES}	Lab on February 17, 1 apacity, K deam	1997			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-13780 psi	Air	UV
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-2068 psi	Steam	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-6175 psi	Air	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-1965 psi	Steam	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-2940 psi	Air	UV
1-2 NPS	1.5 - 2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Air	UV
1-2 NPS	1.5 - 2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Steam	UV
Design Nam	e: 459/462 I	iquids		NBCert	# 37101		
Manufacturer//	Assembler		Designa	itors	E	xpiration Date	9
Assembler			UV		12	2/08/2026	
Design Type							
[Relief Valve] 4 Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure D Blowdown Char Flow Area Conf Designed by: LI	59/462 liquids Sec. UV at National blishing Relieving Ca 0.566 Unitless Vater/Liquid; Certified efinition: First Stead racteristics: Fixed iguration: Nozzle/Fu ESER GmbH & Co. I	Board Testing I apacity: Flow Ca d: Liquid y Stream II Lift KG {LES}	ab on January 29, 19, 19, 29, 19, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20	997			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-13780 psi	Water	UV

0.5-1.5 NPS

0.75-1.5 NPS

1-1.5 NPS

1-1.5 NPS

0.0986 in²

0.206 in²

0.354 in

0.512 in

0.08 in

0.118 in

15-6175 psi

15-2940 psi

Water

Water

UV

UV

1-2 NPS	1.5-2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Water	UV
Design Name	e: 483, 484, 4	485 (1")		NBCert	# 37145		
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	
Assembler			UV		0.	7/06/2024	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	live] 483, 484, 485 (Sec. UV at Leser Gm lishing Relieving Cap 1.960 SCFM/PSIA; (a r/Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Curtain Area SER GmbH & Co. K	1") hbh & Co., KG c pacity: Flow Ca alternate mediu ed: Air, Gas, Ste e Discharge a G {LES}	on January 4, 2001 pacity, Slope m): 5.500 PPH/PSIA eam				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5 NPS	0.127 in ²	0.512 in	0.079 in	15-232 psi	Air	UV
1 NPS	1.5 NPS	0.127 in ²	0.512 in	0.079 in	15-232 psi	Steam	UV
Design Name	e: 483, 484, 4	485 (1") Liq	uids	NBCert	# 37156	1	
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	
Assembler			UV		0	6/06/2024	
Design Type							
[Relief Valve] 48 Capacity Tests: 5 Method of Estab Certified Value: 2 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	33, 484, 485 (1") Liqu Sec. UV at Leser Gm lishing Relieving Cap 2.960 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Curtain Are SER GmbH & Co. K	uids hbh & Co., KG c pacity: Flow Ca PSID : Liquid Stream a G {LES}	on January 8, 2001 pacity, Flow Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5 NPS	0.157 in²	0.512 in	0.098 in	15-232 psi	Water	UV
Design Name	e: 483, 484, 4	485 (1.5")		NBCert ;	# 37167		
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	
Assembler			UV		0	6/06/2024	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 4 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Ive] 483, 484, 485 (Sec. UV at Leser Gm lishing Relieving Cap 4.960 SCFM/PSIA; (a r/Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Curtain Area SER GmbH & Co. K	1.5") hbh & Co., KG o pacity: Flow Ca alternate mediu ed: Air, Gas, Sto e Discharge a G {LES}	on February 1, 2001 pacity, Slope m): 13.930 PPH/PSIA eam				

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1.5 NPS	2 NPS	0.427 in ²	0.984 in	0.139 in	15-232 psi	Air	UV		
1.5 NPS	2 NPS	0.427 in ²	0.984 in	0.139 in	15-232 psi	Steam	UV		
Design Name	e: 483, 484, 4	485 (1.5") L	iquids	NBCert #	# 37178				
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date			
Assembler			UV		06	/15/2024			
Design Type									
Design Type [Relief Valve] 483, 484, 485 (1.5") Liquids Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on May 1, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 7.460 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: LESER GmbH & Co. KG {LES}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1.5 NPS	2 NPS	0.485 in ²	0.984 in	0.157 in	15-232 psi	Water	UV		
Design Name	e: 488			NBCert #	# 37022				
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date			
Assembler			UV		02	/20/2027			
Assembler Design Type			UV		02	/20/2027			
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Ive] 488 Sec. UV at National E lishing Relieving Cap).721 Unitless r/Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K0	Board Testing La acity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES}	UV ab on May 31, 1990 pacity, K		02	/20/2027			
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless /Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ko Outlet Size	Board Testing La bacity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES} Flow Area	UV ab on May 31, 1990 bacity, K eam Orifice [designator] dia.	Lift	02 Set Pressure Range	/20/2027 Media	Designator		
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless /Gas, Steam; Certifie finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ko Outlet Size 1.5 NPS	Board Testing La acity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES} Flow Area 0.644 in ²	UV ab on May 31, 1990 bacity, K eam Orifice [designator] dia. 0.906 in	Lift 0.256 in	02 Set Pressure Range 20-232 psi	/20/2027 Media Air	Designator		
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1 NPS	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless /Gas, Steam; Certifie finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ko Outlet Size 1.5 NPS 1.5 NPS	Board Testing La acity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES} Flow Area 0.644 in ² 0.644 in ²	UV ab on May 31, 1990 pacity, K eam Orifice [designator] dia. 0.906 in 0.906 in	Lift 0.256 in 0.256 in	02 Set Pressure 20-232 psi 20-232 psi	/20/2027 Media Air Steam	Designator UV UV		
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1 NPS 1.5 NPS	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless (Gas, Steam; Certifie finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K0 Outlet Size 1.5 NPS 1.5 NPS 2.5 NPS	Board Testing La acity: Flow Cap ed: Air, Gas, Ste Discharge Lift 3 {LES} Flow Area 0.644 in ² 0.644 in ² 1.667 in ²	UV ab on May 31, 1990 bacity, K eam Orifice [designator] dia. 0.906 in 0.906 in 1.457 in	Lift 0.256 in 0.256 in 0.416 in	02 Set Pressure Range 20-232 psi 20-232 psi	/20/2027 Media Air Steam Air	Designator UV UV		
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.5 NPS 1.5 NPS	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless (Gas, Steam; Certifie finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. KO Outlet Size 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS	Board Testing La acity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES} Flow Area 0.644 in ² 0.644 in ² 1.667 in ²	UV ab on May 31, 1990 bacity, K eam Crifice [designator] dia. 0.906 in 0.906 in 1.457 in 1.457 in	Lift 0.256 in 0.256 in 0.416 in	02 Set Pressure 20-232 psi 1 20-232 psi 1 20-232 psi 1	/20/2027 Media Air Steam Air	Designator UV		
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.5 NPS 1.5 NPS 2 NPS	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless /Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K0 Outlet Size 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 3 NPS	Board Testing La bacity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES} Flow Area 0.644 in ² 0.644 in ² 1.667 in ² 1.667 in ² 2.576 in ²	UV ab on May 31, 1990 oacity, K eam Orifice [designator] dia. 0.906 in 0.906 in 1.457 in 1.457 in 1.811 in	Lift 0.256 in 0.256 in 0.416 in 0.416 in 0.512 in	02 Set Pressure 20-232 psi 20-232 psi	/20/2027 Media Air Steam Air Steam Air Steam	Designator UV		
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE 1 NPS 1 NPS 1.5 NPS 2 NPS 2 NPS	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless /Gas, Steam; Certifie finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K0 Outlet Size 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 3 NPS 3 NPS	Board Testing La acity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES} Flow Area 0.644 in ² 0.644 in ² 1.667 in ² 1.667 in ² 2.576 in ²	UV ab on May 31, 1990 bacity, K eam Orifice [designator] dia. 0.906 in 0.906 in 1.457 in 1.457 in 1.811 in 1.811 in	Lift 0.256 in 0.256 in 0.416 in 0.416 in 0.512 in	Ret Pressure 1 20-232 psi 1	/20/2027 Media Air Steam Air Steam Air Steam	Designator UV		
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE 1 1 NPS 1 NPS 1.5 NPS 2 NPS 2 NPS 2.5 NPS	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless /Gas, Steam; Certifie finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ko Outlet Size 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 3 NPS 3 NPS 4 NPS	Board Testing La acity: Flow Cap ed: Air, Gas, Ste Discharge Lift 3 {LES} Flow Area 0.644 in ² 0.644 in ² 1.667 in ² 1.667 in ² 2.576 in ² 2.576 in ² 4.383 in ²	UV ab on May 31, 1990 pacity, K eam Orifice [designator] dia. 0.906 in 0.906 in 1.457 in 1.457 in 1.457 in 1.811 in 1.811 in 1.811 in 2.362 in	Lift 0.256 in 0.256 in 0.416 in 0.416 in 0.512 in 0.512 in	Ret Pressure 1 20-232 psi 1 </td <td>/20/2027 Media Air Steam Air Steam Air Steam Air Steam</td> <td>Designator UV UV</td>	/20/2027 Media Air Steam Air Steam Air Steam Air Steam	Designator UV		
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE 1 1 NPS 1.5 NPS 1.5 NPS 2 NPS 2.5 NPS 2.5 NPS	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless (Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K0 Outlet Size 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 3 NPS 3 NPS 4 NPS 4 NPS	Board Testing La acity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES} Flow Area 0.644 in ² 0.644 in ² 1.667 in ² 1.667 in ² 2.576 in ² 4.383 in ²	UV ab on May 31, 1990 bacity, K am Crifice [designator] dia. 0.906 in 0.906 in 1.457 in 1.457 in 1.811 in 1.811 in 2.362 in 2.362 in	Lift 0.256 in 0.256 in 0.416 in 0.416 in 0.512 in 0.512 in 0.574 in	Ret Pressure 1 20-232 psi 1 </td <td>/20/2027 Media Air Steam Air Steam Air Steam Air Steam</td> <td>Designator UV UV</td>	/20/2027 Media Air Steam Air Steam Air Steam Air Steam	Designator UV UV		
Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1 NPS 1.5 NPS 2 NPS 2 NPS 2.5 NPS 2.5 NPS 3 NPS	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless /Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K0 Outlet Size 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 3 NPS 3 NPS 4 NPS 4 NPS 5 NPS	Board Testing La bacity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES} Flow Area 0.644 in ² 0.644 in ² 1.667 in ² 1.667 in ² 2.576 in ² 2.576 in ² 4.383 in ² 4.383 in ² 6.666 in ²	UV ab on May 31, 1990 oacity, K am Crifice [designator] dia. 0.906 in 0.906 in 1.457 in 1.457 in 1.811 in 1.811 in 2.362 in 2.362 in 2.913 in	Lift 0.256 in 0.256 in 0.256 in 0.416 in 0.416 in 0.512 in 0.512 in 0.674 in 0.674 in 0.674 in	Returne source 02 Set Pressure 1 20-232 psi 1 20-232 psi <t< td=""><td>/20/2027 Media Air Steam Air Steam Air Steam Air Steam Air Steam Air</td><td>Designator UV UV</td></t<>	/20/2027 Media Air Steam Air Steam Air Steam Air Steam Air Steam Air	Designator UV UV		
Assembler Design Type (Safety Relief Va Capacity Tests: S Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Set Pressure De Set Pressur	Ive] 488 Sec. UV at National E lishing Relieving Cap 0.721 Unitless //Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K0 Outlet Size 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 3 NPS 3 NPS 4 NPS 4 NPS 5 NPS 5 NPS	Board Testing La bacity: Flow Cap ed: Air, Gas, Ste Discharge Lift G {LES} Flow Area 0.644 in ² 0.644 in ² 1.667 in ² 1.667 in ² 2.576 in ² 2.576 in ² 4.383 in ² 4.383 in ² 6.666 in ²	UV ab on May 31, 1990 bacity, K am Crifice (designator] dia. 0.906 in 0.906 in 1.457 in 1.457 in 1.811 in 1.811 in 2.362 in 2.362 in 2.913 in 2.913 in	Lift 0.256 in 0.256 in 0.256 in 0.416 in 0.416 in 0.512 in 0.512 in 0.512 in 0.512 in 0.674 in 0.674 in 0.674 in 0.832 in	Q2 Set Pressure 20-232 psi	/20/2027 Media Air Steam Air Steam Air Steam Air Steam Air Steam Air	besignator UV UV UV UV UV UV UV UV UV UV UV UV UV		

4 NPS	6 NPS	10.3 in ²	3.622 in	1.035 in	20-232 psi	Steam	UV
Design Name	e: 488 (Liqui	ds)		NBCert	# 37033		
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	
Assembler			UV		02	2/20/2027	
Design Type							
[Relief Valve] 48 Capacity Tests: 4 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: LE	88 (Liquids) Sec. UV at National E Jishing Relieving Cap 0.472 Unitless 'ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K	Board Testing L bacity: Flow Ca Liquid Stream Lift G {LES}	ab on June 1, 1990 pacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5 NPS	0.644 in ²	0.906 in	0.216 in	15-232 psi	Water	UV
1.5 NPS	2.5 NPS	1.667 in ²	1.457 in	0.347 in	15-232 psi	Water	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.431 in	15-232 psi	Water	UV
2.5 NPS	4 NPS	4.383 in ²	2.362 in	0.562 in	15-232 psi	Water	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.693 in	15-232 psi	Water	UV
4 NPS	6 NPS	10.3 in ²	3.622 in	0.862 in	15-232 psi	Water	UV
Design Name	e: 526			NBCert	# 37224		
Design Name Manufacturer/A	e: 526 Assembler	_	Designate	NBCert : ors	# 37224 E	xpiration Date	
Design Name Manufacturer/A Assembler	e: 526 Assembler	-	Designate	NBCert : ors	# 37224 E	xpiration Date 6/06/2024	
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confi Designed by: Le	e: 526 Assembler alve] 526 Sec. UV at Leser Gm blishing Relieving Cap 0.801 Unitless r/Gas, Steam; Certifie efinition: Initial Audible acteristics: Adjustable guration: Nozzle/Full ESER GmbH & Co. K	bh & Co., KG o bacity: Flow Ca ed: Air, Gas, St e Discharge tift G {LES}	Designate UV on November 22, 2001 pacity, K eam	NBCert : ors	# 37224 E 01	xpiration Date	
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: A Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confit Designed by: LE	e: 526 Assembler alve] 526 Sec. UV at Leser Gm blishing Relieving Cap 0.801 Unitless r/Gas, Steam; Certific efinition: Initial Audible acteristics: Adjustable guration: Nozzle/Full ESER GmbH & Co. K Outlet Size	bh & Co., KG d bacity: Flow Ca ed: Air, Gas, St e Discharge Jift G {LES} Flow Area	Designato UV on November 22, 2001 pacity, K eam Orifice [designator] dia.	Lift	# 37224 E Or Set Pressure Range	kpiration Date 5/06/2024 Media	Designator
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: A Method of Estab Certified Value: O Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: LE Inlet Size 1-1.5 NPS	e: 526 Assembler alve] 526 Sec. UV at Leser Gm blishing Relieving Car 0.801 Unitless r/Gas, Steam; Certifie acteristics: Adjustable guration: Initial Audible acteristics: Adjustable guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS	bh & Co., KG o bacity: Flow Ca ed: Air, Gas, St e Discharge Lift G {LES} Flow Area 0.239 in ²	Designato UV on November 22, 2001 pacity, K eam Orifice [designator] dia. [E] 0.551 in	NBCert : ors Lift 0.138 in	# 37224 E 00 Set Pressure Range 15-2900 psi	xpiration Date 5/06/2024 Media Steam	Designator
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confit Designed by: LE Inlet Size 1-1.5 NPS 1-1.5 NPS	e: 526 Assembler alve] 526 Sec. UV at Leser Gmo bishing Relieving Cap 0.801 Unitless r/Gas, Steam; Certific offinition: Initial Audible acteristics: Adjustable guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS	bh & Co., KG o bacity: Flow Ca ed: Air, Gas, St e Discharge Lift G {LES} Flow Area 0.239 in ² 0.239 in ²	Designato UV on November 22, 2001 pacity, K eam Orifice [designator] dia. [E] 0.551 in [E] 0.551 in	NBCert : ors Lift 0.138 in 0.138 in	# 37224 E 00 Set Pressure Range 15-2900 psi 15-6000 psi	xpiration Date 5/06/2024 Media Steam Air	Designator
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: A Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confit Designed by: LE Inlet Size 1-1.5 NPS 1-5.15 NPS	e: 526 Assembler alve] 526 Sec. UV at Leser Gm bishing Relieving Cap 0.801 Unitless r/Gas, Steam; Certific efinition: Initial Audible acteristics: Adjustable guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 2,3 NPS	bh & Co., KG o bacity: Flow Ca ed: Air, Gas, St e Discharge Lift G {LES} Flow Area 0.239 in ² 0.239 in ² 0.394 in ²	Designato UV on November 22, 2001 pacity, K eam Orifice [designator] dia. [E] 0.551 in [E] 0.551 in [F] 0.709 in	NBCert : Drs Lift 0.138 in 0.217 in	# 37224 E 00 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Media Steam Air Steam	Designator
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: 4 Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confit Designed by: LE Inlet Size 1-1.5 NPS 1-5.1.5 NPS 1.5-1.5 NPS	e: 526 Assembler Alve] 526 Sec. UV at Leser Gm Dishing Relieving Cap 0.801 Unitless r/Gas, Steam; Certific acteristics: Adjustable guration: Initial Audible acteristics: Adjustable guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 2,3 NPS 2,3 NPS	bh & Co., KG o bacity: Flow Ca ed: Air, Gas, St e Discharge tift G {LES} Flow Area 0.239 in ² 0.239 in ² 0.394 in ²	Designation UV on November 22, 2001 pacity, K eam Orifice [designator] dia. [E] 0.551 in [E] 0.551 in [F] 0.709 in [F] 0.709 in	NBCert : Drs Lift 0.138 in 0.217 in 0.217 in	# 37224 E 04 04 04 04 04 04 04 04 04 04 04 04 04 0	Appiration Date B/06/2024 B/06/2024 <td>Designator UV UV UV <!--</td--></td>	Designator UV UV UV </td
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: 4 Method of Estab Certified Value: 4 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confir Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS	e: 526 Assembler alve] 526 Sec. UV at Leser Gmo bishing Relieving Cap 0.801 Unitless r/Gas, Steam; Certifie efinition: Initial Audible acteristics: Adjustable guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 2,3 NPS 2,3 NPS 3 NPS	bh & Co., KG o bacity: Flow Ca ed: Air, Gas, St e Discharge Lift G {LES} Flow Area 0.239 in ² 0.239 in ² 0.394 in ² 0.394 in ² 0.616 in ²	Designation UV on November 22, 2001 pacity, K eam Crifice [designator] dia. [E] 0.551 in [E] 0.709 in [F] 0.709 in [G] 0.886 in	NBCert : ors Lift 0.138 in 0.217 in 0.268 in	# 37224 E 00 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Appiration Date B/06/2024 B/06/2024 <td>Designator UV UV</td>	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confi Designed by: LE Inlet Size 1-1.5 NPS 1-5.1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS	e: 526 Assembler Alve] 526 Sec. UV at Leser Gmo Dishing Relieving Cap 0.801 Unitless r/Gas, Steam; Certific offinition: Initial Audible acteristics: Adjustable guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 2,3 NPS 3 NPS 3 NPS	bh & Co., KG o bacity: Flow Ca ed: Air, Gas, St Discharge Lift G {LES} Flow Area 0.239 in ² 0.239 in ² 0.394 in ² 0.394 in ² 0.616 in ²	Designation UV on November 22, 2001 pacity, K eam Crifice [designator] dia. [E] 0.551 in [E] 0.551 in [F] 0.709 in [F] 0.709 in [G] 0.886 in [G] 0.886 in	NBCert : ors Lift 0.138 in 0.217 in 0.217 in 0.268 in 0.268 in	# 37224 E 00 Set Pressure 0 15-2900 psi 1 15-3705 psi 1	xpiration Date 5/06/2024 Media Steam Air Steam Air Steam Air Steam	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: A Method of Estab Certified Value: 1 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confit Designed by: LE Inlet Size 1-1.5 NPS 1-5.1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	e: 526 Assembler Alve] 526 Sec. UV at Leser Gm olishing Relieving Cap 0.801 Unitless r/Gas, Steam; Certific efinition: Initial Audible acteristics: Adjustable guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3 NPS	bh & Co., KG o bacity: Flow Ca ed: Air, Gas, St e Discharge Lift G {LES} Flow Area 0.239 in ² 0.239 in ² 0.394 in ² 0.394 in ² 0.616 in ² 0.975 in ²	Designation UV on November 22, 2001 pacity, K eam Crifice [designator] dia. [E] 0.551 in [E] 0.709 in [F] 0.709 in [G] 0.886 in [G] 0.886 in [H] 1.114 in	NBCert : Drs Lift 0.138 in 0.217 in 0.217 in 0.268 in 0.268 in 0.323 in	# 37224 E 0 Set Pressure 0 15-2900 psi 1 15-2750 psi 1	Air	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: a Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chars Flow Area Confi Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	e: 526 Assembler Alve] 526 Sec. UV at Leser Gmo blishing Relieving Cap 0.801 Unitless r/Gas, Steam; Certifie guration: Initial Audible acteristics: Adjustable guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3 NPS 3 NPS 3 NPS	bh & Co., KG o bacity: Flow Ca ed: Air, Gas, St e Discharge Lift G {LES} Flow Area 0.239 in ² 0.239 in ² 0.394 in ² 0.394 in ² 0.616 in ² 0.616 in ² 0.975 in ²	Designation UV on November 22, 2001 pacity, K eam Crifice [designator] dia. [E] 0.551 in [E] 0.551 in [E] 0.709 in [F] 0.709 in [G] 0.886 in [G] 0.886 in [H] 1.114 in	NBCert : Drs Lift 0.138 in 0.217 in 0.217 in 0.268 in 0.268 in 0.323 in 0.323 in	# 37224 E 0 Set Pressure 1 Range 1 15-2900 psi 1 15-2750 psi 1	Media Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV UV

2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-4134 psi	Air	UV
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-2900 psi	Steam	UV
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-3700 psi	Air	UV
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Air	UV
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Steam	UV
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Air	UV
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Steam	UV
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Air	UV
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Steam	UV
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Air	UV
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Steam	UV
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Air	UV
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Steam	UV
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Air	UV
6 NPS	8 NPS	19.325 in²	[R] 4.961 in	1.497 in	15-100 psi	Steam	UV
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Air	UV
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Steam	UV
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Air	UV
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Steam	UV
Design Nam Manufacturer//	e: 526 (Liqui Assembler	ds)	Designate	NBCert : prs	# 37235 Е	piration Date	
Design Nam Manufacturer/# Assembler	e: 526 (Liqui [,] Assembler	ds)	Designate	NBCert ; ors	# 37235 E> 06	xpiration Date	•
Design Nam Manufacturer/# Assembler Design Type	e: 526 (Liqui Assembler	ds)	Designate UV	NBCert ; ors	# 37235 E> 06	xpiration Date	,
Design Nam Manufacturer/A Assembler Design Type [Relief Valve] 5 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Confi Designed by: LE	e: 526 (Liqui Assembler 26 (Liquids) Sec. UV at Leser Gro Dishing Relieving Ca 0.579 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K	ds) hbh & Co., KG pacity: Flow Ca : Liquid Stream Lift :G {LES}	Designato UV on January 2, 2002 apacity, K	NBCert :	# 37235 E> 06	xpiration Date	
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 5 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: Le Inlet Size	e: 526 (Liqui Assembler 26 (Liquids) Sec. UV at Leser Gro Dishing Relieving Ca 0.579 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K	ds) hbh & Co., KG pacity: Flow Ca : Liquid Stream Lift :G {LES} Flow Area	Designato UV on January 2, 2002 opacity, K Orifice [designator] dia.	NBCert :	# 37235 E> Oe Set Pressure Range	xpiration Date	Designator
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 5 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Confi Designed by: LE Inlet Size 1-1.5 NPS	e: 526 (Liqui Assembler 26 (Liquids) Sec. UV at Leser Gro Dishing Relieving Car 0.579 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS	ds) hbh & Co., KG pacity: Flow Ca : Liquid Stream Lift .G {LES} Flow Area 0.239 in ²	Designato UV on January 2, 2002 apacity, K Orifice [designator] dia. [E] 0.551 in	NBCert : prs Lift 0.138 in	# 37235 E> 06 Set Pressure Range 15-6000 psi	Apiration Date	Designator
Design Nam Manufacturer/A Assembler Design Type [Relief Valve] 5 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Confi Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS	e: 526 (Liqui Assembler 26 (Liquids) Sec. UV at Leser Gro Dishing Relieving Ca 0.579 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS	ds) hbh & Co., KG pacity: Flow Ca : Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ²	Designato UV on January 2, 2002 apacity, K Orifice [designator] dia. [E] 0.551 in [F] 0.709 in	NBCert : ors Lift 0.138 in 0.217 in	# 37235 E) 06 06 07 07 07 07 07 07 07 07 07 07	Media Water	Designator
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 5 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Confi Designed by: LE Inlet Size 1.1.5 NPS 1.5-1.5 NPS 1.5-2 NPS	e: 526 (Liqui Assembler 26 (Liquids) Sec. UV at Leser Grr blishing Relieving Cal 0.579 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3 NPS	ds) hbh & Co., KG pacity: Flow Ca : Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ²	Designato UV on January 2, 2002 opacity, K Crifice [designator] dia. [E] 0.551 in [E] 0.709 in [G] 0.886 in	NBCert : ors Lift 0.138 in 0.217 in 0.268 in	# 37235 E> 06 37 06 37 06 37 37 37 37 37 37 37 37 37 37 37 37 37	xpiration Date 06/2024 Media Water Water Water	Designator UV UV UV UV
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 5 Capacity Tests: Method of Estat Certified Value: Media - Test W Set Pressure Do Blowdown Char Flow Area Conff Designed by: LE Inlet Size 1.1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS	e: 526 (Liqui Assembler 26 (Liquids) Sec. UV at Leser Gro Dishing Relieving Ca 0.579 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3 NPS	ds) abh & Co., KG pacity: Flow Ca : Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ²	Designato UV on January 2, 2002 opacity, K Crifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [H] 1.114 in	NBCert : ors Lift 0.138 in 0.217 in 0.268 in 0.323 in	# 37235 E 06 Set Pressure 6 15-6000 psi 1 15-5000 psi 1 15-3705 psi 1 15-2750 psi 1	Appiration Date 3/06/2024 Media Water Water Water Water Water Water	Designator UV UV
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 5 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Confi Designed by: LE Inlet Size 1.1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	e: 526 (Liqui Assembler 26 (Liquids) Sec. UV at Leser Gro olishing Relieving Cal 0.579 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3,4 NPS	ds) hbh & Co., KG pacity: Flow Ca : Liquid Stream Lift :G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ²	Designate UV on January 2, 2002 apacity, K Crifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [H] 1.114 in [J] 1.417 in	NBCert : ors Lift 0.138 in 0.217 in 0.268 in 0.323 in 0.453 in	# 37235 E> 06 Set Pressure 6 15-6000 psi 1 15-5000 psi 1 15-3705 psi 1 15-2750 psi 1 15-4134 psi 1	Apiration Date V06/2024 V06/2024 V06/204 V0	Designator UV UV
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 5 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Conff Designed by: LE Inlet Size 1.5.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS	e: 526 (Liqui Assembler 26 (Liquids) Sec. UV at Leser Gro Dishing Relieving Cal 0.579 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3, NPS 3, NPS 3,4 NPS 4,6 NPS	ds) hbh & Co., KG pacity: Flow Ca : Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ²	Designato UV on January 2, 2002 on January 2, 2002 on January 2, 2002 (I) 1.000 (I) 0.551 (I) 0.709 (I) 0.886 (II) 1.114 (J) 1.417 (K) 1.693	NBCert : ors Lift 0.138 in 0.217 in 0.268 in 0.323 in 0.453 in 0.453 in	37235 5 5 7 8 7 8 7 8 7 8 7 8 15-6000 psi 15-3705 psi 15-2750 psi 15-3700 psi 15-3700 psi 15-3700 psi	Appiration Date Appiration Date <td>Designator UV UV</td>	Designator UV UV
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 5 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Conff Designed by: LE Inlet Size 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2.3 NPS 3.4 NPS	e: 526 (Liqui Assembler 26 (Liquids) Sec. UV at Leser Grr bishing Relieving Cal 0.579 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3, NPS 3, NPS 3,4 NPS 4,6 NPS 4,6 NPS	ds) bbh & Co., KG pacity: Flow Ca : Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ²	Designato UV on January 2, 2002 on January 2, 2002 (I) 1000 (I) 0.551 in (I) 0.551 in (I) 0.709 in (I) 1.114 in (I) 1.417 in (II) 1.2106 in	NBCert : ors Lift 0.138 in 0.217 in 0.268 in 0.323 in 0.453 in 0.532 in 0.532 in 0.5698 in	37235 Ex C Set Pressure I5-6000 psi 15-5000 psi 15-3705 psi 15-3705 psi 15-3700 psi 15-3700 psi 15-3700 psi 15-3700 psi 15-1830 psi	Appiration Date XO6/2024 XO6/2024 XO6/2024 Water	Designator UV UV

4 NPS

4 NPS

6 NPS

6 NPS

[N] 2.598 in

[P] 3.15 in

5.302 in²

7.79 in²

15-2760 psi

15-1400 psi

0.827 in

1.036 in

UV

UV

Water

Water

6 NPS	8 NPS	13.548 in²	[Q] 4.154 in	1.249 in	15-1038.5 psi	Water	UV			
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Water	UV			
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-914 psi	Water	UV			
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Water	UV			
Design Name	e: 560, 570			NBCert	# 02080					
Manufacturer/A	ssembler		Designate	ors	E	cpiration Date)			
Assembler			UV, V		01	/24/2026				
Assembler UV, V 01/24/2026 Design Type [Safety Valve] 560, 570 Capacity Tests: Sec. UV, V at National Board Testing Lab on November 10, 2005 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.856 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Aquatrol, Incorporated {AQT}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-0.75 NPS	.75 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-300 psi	Air	UV			
0.5-0.75 NPS	.75 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-300 psi	Steam	UV, V			
0.75-1 NPS	1 NPS	0.221 in ²	[E] 0.53 in	0.132 in	15-300 psi	Air	UV			
0.75-1 NPS	1 NPS	0.221 in ²	[E] 0.53 in	0.132 in	15-300 psi	Steam	UV, V			
1-1.25 NPS	1.25 NPS	0.352 in ²	[F] 0.67 in	0.167 in	15-300 psi	Air	UV			
1-1.25 NPS	1.25 NPS	0.352 in ²	[F] 0.67 in	0.167 in	15-300 psi	Steam	UV, V			
1.25-1.5 NPS	1.5 NPS	0.567 in ²	[G] 0.85 in	0.212 in	15-300 psi	Air	UV			
1.25-1.5 NPS	1.5 NPS	0.567 in ²	[G] 0.85 in	0.212 in	15-300 psi	Steam	UV, V			
1.5-2 NPS	2 NPS	0.899 in ²	[H] 1.07 in	0.267 in	15-300 psi	Air	UV			
1.5-2 NPS	2 NPS	0.899 in ²	[H] 1.07 in	0.267 in	15-300 psi	Steam	UV, V			
2-2.5 NPS	2.5 NPS	1.463 in ²	[J] 1.365 in	0.41 in	15-300 psi	Air	UV			
2-2.5 NPS	2.5 NPS	1.463 in ²	[J] 1.365 in	0.41 in	15-300 psi	Steam	UV, V			
Design Name	e: Kunkle 60	00, 6252 S	eries	NBCert	# 36324					
Manufacturer/A	ssembler		Designate	ors	Ex	cpiration Date)			
Assembler			UV, V		05	5/27/2026				
Design Type										
[Safety Valve] K Capacity Tests: Method of Estab Certified Value: Media - Test: St Set Pressure De Blowdown Chars	Cunkle 6000, 6252 Se Sec. UV, V at unknov blishing Relieving Cap 0.878 Unitless team; Certified: Air, G sfinition: Pop acteristics: Adjustable	eries vn lab on Marc pacity: Flow Ca sas, Steam e (Dual Ring)	h 24, 1982 apacity, K							

Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Air	UV
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	V
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Air	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	V
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Air	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	V
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in²	[G] 0.84 in	0.2 in	15-300 psi	Air	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in²	[G] 0.84 in	0.2 in	15-300 psi	Steam	V
1.25-1.5 NPS	1.5, 2 NPS	0.554 in²	[G] 0.84 in	0.2 in	15-300 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Air	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	V
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in²	[J] 1.342 in	0.32 in	15-300 psi	Air	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in²	[J] 1.342 in	0.32 in	15-300 psi	Steam	V
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in²	[J] 1.342 in	0.32 in	15-300 psi	Steam	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Air	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	V
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Air	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	V
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Air	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	V
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Air	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	V
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Air	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	V
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Air	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	V
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Air	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	V
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	UV

Docian Nom	o: Kunklo 04	0 to 010		NDCort	#26100		
Design Name	e. Kunkie 91	0 10 9 19		NDCen	# 30100		
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	•
Assembler			UV		05	5/29/2026	
Design Type							
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: St Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	alve] Kunkle 910 to 9 Sec. UV at unknown blishing Relieving Ca 0.878 Unitless team; Certified: Air, G sfinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S	919 Iab on May 19 pacity: Flow Ca Gas, Steam Lift Solutions Final (, 1969 apacity, K Control US LP {AGC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Steam	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Air	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Steam	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Air	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Steam	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Air	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Steam	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Air	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Steam	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Air	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	UV
Design Name	e: Kunkle 91 and 929 (S	0 to 919 (S Sect. I Liqui	ect. VIII Liquid), s id)	⁹²⁸ NBCert	# 36111		
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	1
Assembler			UV		05	5/29/2026	
Design Type							
[Relief Valve] K Capacity Tests: Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er	unkle 910 to 919 (Se Sec. UV, V at unknov blishing Relieving Ca 0.710 Unitless 'ater/Liquid; Certified efinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S	ct. VIII Liquid), wn lab on May pacity: Flow Ca : Liquid Stream Lift solutions Final (928 and 929 (Sect. I I 8, 1985 apacity, K Control US LP {AGC}	Liquid)			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia	Lift	Set Pressure Range	Media	Designator

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75 , 1 NPS	0.1213 in ²	[D] 0.393 in	0.126 in	15-1400 psi	Water	UV, V
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.168 in	15-1000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.21 in	15-700 psi	Water	UV, V
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.268 in	15-600 psi	Water	UV, V

1.5-2 NPS	2.5 NPS	0.864 in²	[H] 1.049 in	0.336 in	15-500 psi	Water	UV, V			
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.429 in	15-500 psi	Water	UV, V			
Design Name	e: Series 740)		NBCert	# 02091					
Manufacturer/A	ssembler		Designate	ors	E	piration Date				
Assembler			UV		01	/24/2026				
AssemblerUV01/24/2026Design Type[Safety Relief Valve] Series 740 Capacity Tests: Sec. UV at National Board Testing Lab on November 21, 2012 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Aquatrol, Incorporated {AQT}01/24/2026										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	0.75, 1 NPS	0.125 in ²	[D] 0.4 in	0.105 in	15-1500 psi	Air	UV			
0.5-1 NPS	0.75, 1 NPS	0.125 in ²	[D] 0.4 in	0.105 in	15-300 psi	Steam	UV			
0.5-1.25 NPS	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-1500 psi	Air	UV			
0.5-1.25 NPS	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-300 psi	Steam	UV			
0.75-1.5 in	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-1500 psi	Air	UV			
0.75-1.5 in	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-300 psi	Steam	UV			
1-1.5 NPS	1.5 NPS	0.353 in ²	[F] 0.67 in	0.17 in	15-300 psi	Steam	UV			
1-1.5 NPS	1.5 NPS	0.353 in ²	[F] 0.67 in	0.17 in	15-750 psi	Air	UV			
1-2 in	1.5 NPS	0.353 in ²	[F] 0.67 in	0.017 in	15-750 psi	Air	UV			
1-2 in	1.5 NPS	0.353 in ²	[F] 0.67 in	0.017 in	15-300 psi	Steam	UV			
1.25-2 NPS	2 NPS	0.554 in ²	[G] 0.84 in	0.215 in	15-300 psi	Steam	UV			
1.25-2 NPS	2 NPS	0.554 in ²	[G] 0.84 in	0.215 in	15-700 psi	Air	UV			
1.5-2.5 NPS	2, 2.5 NPS	0.923 in ²	[H] 1.084 in	0.28 in	15-300 psi	Steam	UV			
1.5-2.5 NPS	2, 2.5 NPS	0.923 in ²	[H] 1.084 in	0.28 in	15-600 psi	Air	UV			
2-3 NPS	3 NPS	1.418 in ²	[J] 1.344 in	0.34 in	15-300 psi	Steam	UV			
2-3 NPS	3 NPS	1.418 in ²	[J] 1.344 in	0.34 in	15-600 psi	Air	UV			
Design Name	e: Series 740) (Liquid)		NBCert ;	# 02103					
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date				
Assembler			UV		01	/24/2026				
Design Type										
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De	Ive] Series 740 (Liqu Sec. UV at National E lishing Relieving Cap 0.791 Unitless ater/Liquid; Certified: finition: First Steady	uid) Board Testing L Dacity: Flow Ca Liquid Stream	.ab on November 20, 2 pacity, K	012						

Flow Area Configuration: Nozzle/Full Lift Designed by: Aquatrol, Incorporated {AQT}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	0.75, 1 NPS	0.125 in ²	[D] 0.4 in	0.105 in	15-1500 psi	Water	UV
0.75-1.25 NPS	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-1500 psi	Water	UV
0.75-1.5 in	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-1500 psi	Water	UV
1-1.5 NPS	1.5 NPS	0.353 in ²	[F] 0.67 in	0.17 in	15-750 psi	Water	UV
1-2 in	1.5 NPS	0.353 in ²	[F] 0.67 in	0.017 in	15-750 psi	Water	UV
1.25-2 NPS	2 NPS	0.554 in²	[G] 0.84 in	0.215 in	15-700 psi	Water	UV
1.5-2.5 NPS	2, 2.5 NPS	0.923 in ²	[H] 1.084 in	0.28 in	15-600 psi	Water	UV
2-3 NPS	3 NPS	1.418 in ²	[J] 1.344 in	0.34 in	15-600 psi	Water	UV

Albert Handtmann Armaturenfabrik GmbH & Co. KG (AHA)

Biberach/Riss, 88400Germany

This Company Manufactures or Assembles:

Design Name	: 33551 and	33651		NBC	cert # 006	39				
Manufacturer/As	ssembler		Desig	gnators		Expiration Dat	Expiration Date			
Manufacturer			UV			01/06/2028				
Design Type										
Design Type [Safety Relief Valve] 33551 and 33651 Capacity Tests: Sec. UV at National Board Testing Lab on October 2, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.640 Unitless Media - Test: Water/Liquid; Certified: Air, Gas Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Albert Handtmann Armaturenfabrik GmbH & Co. KG {AHA}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia	a. Lift	Set Pressure Range	Media	Designator			
1.5 NPS	2.5 NPS	0.5369 in ²	0.8268 in	0.2323 in	15-145 psi	Air	UV			
2 NPS	3 NPS	1.3662 in ²	1.3189 in	0.3543 in	15-145 psi	Air	UV			
2.5 NPS	3.5 NPS	2.5759 in ²	1.811 in	0.5039 in	15-145 psi	Air	UV			
3 NPS	4 NPS	4.2377 in ²	2.3228 in	0.5827 in	15-145 psi	Air	UV			
3.5 NPS	5 NPS	6.1367 in ²	2.7953 in	0.7559 in	15-145 psi	Air	UV			
Design Name	: 33551 and	33651 (Liq	uid)	NBC	cert # 006	40				
Manufacturer/As	ssembler		Desig	gnators		Expiration Dat	e			
Manufacturer			UV			01/06/2028				

Nameplate Abbreviation: AHA

[Safety Relief Valve] 33551 and 33651 (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on March 31, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.436 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Albert Handtmann Armaturenfabrik GmbH & Co. KG {AHA}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2.5 NPS		0.8268 in	0.2323 in	15-145 psi	Water	UV
2 NPS	3 NPS		1.3189 in	0.3543 in	15-145 psi	Water	UV
2.5 NPS	3.5 NPS		1.811 in	0.5039 in	15-145 psi	Water	UV
3 NPS	4 NPS		2.3228 in	0.5827 in	15-145 psi	Water	UV
3.5 NPS	5 NPS		2.7953 in	0.7559 in	15-145 psi	Water	UV

Allied Valve, Inc. (ALC)

Chicago, 60642United States

Design Name: 1541, 1543, 1541-3, 1543-3 NBCert # 18032											
Manufacturer/Assembler Designators Expiration Date											
Assembler			UV, V		02	/17/2027					
Design Type											
[Safety Valve] 1541, 1543, 1541-3, 1543-3 Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V				
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV				
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V				
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV				
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V				
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV				
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V				
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV				
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V				
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV				

1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-300 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV
Design Nam	e: 1811, 151			NBCert	# 18122		
Manufacturer/A	Assembler		Designate	ors	E	piration Date	•
Assembler			UV, V		02	/17/2027	
Design Type [Safety Valve] 1	811, 1511						
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: De	811, 1511 Sec. UV, V at Dresse blishing Relieving Caj 0.877 Unitless ir/Gas, Steam; Certifi efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ}	er, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift	h 11, 1975 apacity, K team				
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Du	811, 1511 Sec. UV, V at Dresse blishing Relieving Ca 0.877 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area	h 11, 1975 apacity, K ieam Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: De Inlet Size 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse blishing Relieving Ca 0.877 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ²	h 11, 1975 apacity, K ieam Orifice [designator] dia. [F] 0.625 in	Lift 0.156 in	Set Pressure Range 15-1500 psi	Media	Designator UV, V
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Di Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse blishing Relieving Ca 0.877 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ²	h 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in	Lift 0.156 in 0.156 in	Set Pressure Range 15-1500 psi 15-1500 psi	Media Steam Air	Designator UV, V UV
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Du Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse blishing Relieving Caj 0.877 Unitless ir/Gas, Steam; Certifi efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS	r, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ²	h 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in	Lift 0.156 in 0.156 in 0.2 in	Set Pressure Range 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam	Designator UV, V UV UV
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Du Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse bilshing Relieving Caj 0.877 Unitless ir/Gas, Steam; Certifi efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	r, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ²	h 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in	Set Pressure Range 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam	Designator UV, V UV UV UV
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Du Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse bilshing Relieving Ca 0.877 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St Lift Flow Area 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ²	h 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.2 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam	Designator UV, V
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Du Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS	811, 1511 Sec. UV, V at Dresse blishing Relieving Ca 0.877 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ²	h 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [G] 0.8 in [H] 1 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Air	Designator UV, V UV UV UV, V UV, V UV, V UV, V
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Du Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS	811, 1511 Sec. UV, V at Dresse bilshing Relieving Caj 0.877 Unitless ir/Gas, Steam; Certifie efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS	r, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ²	h 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [H] 1 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Steam Air Steam	Designator UV, V
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Di 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS	811, 1511 Sec. UV, V at Dresse bilshing Relieving Caj 0.877 Unitless ir/Gas, Steam; Certifi efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS	r, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ²	h 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [H] 1 in [J] 1.281 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in	Set Pressure Range 15-1500 psi	Media Steam Steam Air Steam Air Steam Air Steam Air	Designator UV, V
Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Du Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS	811, 1511 Sec. UV, V at Dresse bilshing Relieving Ca 0.877 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ²	h 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [J] 1.281 in [J] 1.281 in [J] 1.281 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V
Design Type[Safety Valve] 1Capacity Tests:Method of EstatCertified Value:Media - Test: AiSet Pressure DeBlowdown CharFlow Area ConfiDesigned by: DiInlet Size1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.5-2.5 NPS1.5-2.5 NPS1.5-2.5 NPS1.5-2.5 NPS2-3 NPS2-3 NPS	811, 1511 Sec. UV, V at Dresse bilshing Relieving Ca 0.877 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ²	An 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [J] 1.281 in [J] 1.281 in [J] 1.281 in [J] 1.281 in [J] 1.281 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.2 in 0.25 in 0.351 in 0.321 in 0.383 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V
Design Type[Safety Valve] 1Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: DuInlet Size1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.5-2.5 NPS1.5-2.5 NPS1.5-2.5 NPS2-3 NPS2-3 NPS2.5-4 NPS	1811, 1511 Sec. UV, V at Dresse Dishing Relieving Cal 0.877 Unitless ir/Gas, Steam; Certifie efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ² 1.84 in ² 2.853 in ²	h 11, 1975 apacity, K team Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [G] 0.8 in [G] 0.8 in [J] 1.281	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Air Air	Designator UV, V
Design Type[Safety Valve] 1Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: DuInlet Size1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.5-2.5 NPS1.5-2.5 NPS1.5-2.5 NPS2-3 NPS2.5-4 NPS2.5-4 NPS	1811, 1511 Sec. UV, V at Dresse polishing Relieving Caj 0.877 Unitless ir/Gas, Steam; Certifie efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ² 2.853 in ²	A 11, 1975 apacity, K team	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.383 in 0.477 in	Set Pressure 15-1500 psi	Media Steam Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V
Design Type[Safety Valve] 1Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: DiInlet Size1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.5-2.5 NPS1.5-2.5 NPS1.5-2.5 NPS2-3 NPS2.5-4 NPS2.5-4 NPS3 NPS	811, 1511 Sec. UV, V at Dresse bilshing Relieving Cal 0.877 Unitless ir/Gas, Steam; Certifi efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 4, 6 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ² 2.853 in ² 2.853 in ² 3.6 in ²	A 11, 1975 apacity, K team	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.383 in 0.477 in 0.477 in 0.477 in	Set Pressure 7.5-1500 psi 1.5-1500 psi	Media Steam Steam Air Steam Air Steam Air Steam Air Steam Air Steam Air	Designator UV, V UV, V

4 NPS

6 NPS

4.34 in²

[N] 2.351 in

0.588 in

15-1500 psi

Steam

UV, V

4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV		
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V		
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV		
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V		
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV		
Design Name	e: 1900, 1900 (Liquids))-30 1900-(35 LA & DALA	NBCert ;	# 18784				
Manufacturer/A	ssembler		Designato	ors	E	cpiration Date			
Assembler			UV		04	/17/2027			
Design Type									
Design Type [Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V		
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V		
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V		
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V		
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V		
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V		
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V		
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V		
6-6 NPS	8 NPS	12.851 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V		
6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V		
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V		
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V		
Design Name	e: 1900, 1900)-30, 1900-	35	NBCert a	¥ 18201				
Manufacturer/A	ssembler		Designato	ors	E	cpiration Date			
Assembler			UV		02	2/17/2027			

[Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV

12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV
Design Name: 1900, 1900-30, 1900-35 (R.L.) NBCert # 18223							
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			UV		12/	11/2026	
Design Type							
[Safety Relief Valve] 1900, 1900-30, 1900-35 (R.L.) Capacity Tests: Sec. NV, UV at Dresser, Inc. on June 19, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless; Certification Provisions: Restricted Lift (Prev. CC N-394 or 1945) Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2, 3 NPS	0.1279 in ²	[D] 0.4036 in	0.08 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2, 3 NPS	0.1279 in ²	[D] 0.4036 in	0.08 in	15-6250 psi	Steam	NV, UV
1-1.5 NPS	2, 3 NPS	0.2279 in ²	[E] 0.5387 in	0.08 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2, 3 NPS	0.2279 in ²	[E] 0.5387 in	0.08 in	15-6250 psi	Steam	NV, UV
1.5 NPS	2, 3 NPS	0.3568 in ²	[F] 0.674 in	0.08 in	15-6250 psi	Air	NV, UV
1.5 NPS	2, 3 NPS	0.3568 in ²	[F] 0.674 in	0.08 in	15-6250 psi	Steam	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5849 in ²	[G] 0.863 in	0.08 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5849 in ²	[G] 0.863 in	0.08 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.087 in	15-3300 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.087 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.112 in	15-3100 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.112 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.134 in	15-3400 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.134 in	15-2540 psi	Steam	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.167 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.167 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.187 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.187 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.205 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.205 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.249 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.249 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	0.327 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	0.327 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	0.387 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	0.387 in	15-650 psi	Steam	NV, UV

2.162 in

15-300 psi

10 NPS

14 NPS

50.26 in²

[V] 8 in

NV, UV

Steam

8 NPS	10 NPS	28.624 in²	[T] 6.04 in	0.504 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	0.504 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	0.517 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	0.517 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	0.552 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	0.552 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	0.648 in	15-300 psi	Air	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	0.648 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	0.757 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	0.757 in	15-300 psi	Air	NV, UV

Design Name: 1900D-2, 1900-30D-2	NBCert # 181	44
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/17/2027
Design Type		
[Safaty Baliaf Valua] 1000D 2 1000 20D 2		

[Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV

Design Name: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 1

Manufacturer/A	Assembler		Designa	Designators			Expiration Date		
Assembler			UV			02/17/2027			
Design Type	Design Type								
[Relief Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: Di	[Relief Valve] 1900D-2, 1900-30D-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.256 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by Desserve II of (DP II)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 - 3 NPS	0 1279 in²	[D] 0 674 in	0.056 in	15-6250 psi	Water	NV UV V		

Design Name	e: 1900E-2, ²	1900-30E-2		NBCert	# 1816	66	
Manufacturer/A	ssembler		Designate	ors		Expiration Date	
Assembler			UV			02/17/2027	
Design Type							
[Safety Relief Va Capacity Tests: 4 Method of Estab Certified Value:1 Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	Ive] 1900E-2, 1900- Sec. NV, UV at Dress Ilishing Relieving Cap 0.040 PPH/PSIA; (al r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ}	30E-2 ser, Inc. on Aug bacity: Flow Ca ternate mediur ed: Air, Gas, St e (Single Ring) .ift	ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA eam				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV
Design Name	Design Name: 1900E-2, 1900-30E-2 LA & DALA (Liquids) NBCert # 18762						
Manufacturer/A	ssembler		Designate	ors		Expiration Date	
Assembler			UV			02/17/2027	
Design Type							
[Relief Valve] 19 Capacity Tests: 9 Method of Estab Certified Value: 9 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	000E-2, 1900-30E-2 l Sec. NV, UV, V at Dre lishing Relieving Cap 5.798 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	LA & DALA (Lic esser, Inc. on J pacity: Flow Ca 'SID Liquid Stream .ift	quids) uly 12, 1995 pacity, Flow Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V
Design Name	e: 19110M &	19110H (L	iquids)	NBCert	# 1907	77	
Manufacturer/A	ssembler		Designate	ors		Expiration Date	
Assembler			UV			04/17/2027	
Design Type							
[Relief Valve] 19110M & 19110H (Liquids) Capacity Tests: Sec. NV, UV at Dresser, Inc. on July 29, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 2.264 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	290-5000 psi	Water	UV

0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	290-5000 psi	Water	NV
Design Name: Kunkle 6000, 6252 Series NBCert # 36324							
Manufacturer/A	ssembler		Designato	rs	E	piration Date	
Assembler			UV, V		06	/26/2027	
Design Type							
[Safety Valve] Ki Capacity Tests: S Method of Establ Certified Value: O Media - Test: Ste Set Pressure De Blowdown Chara Flow Area Config Designed by: Em	unkle 6000, 6252 Se Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, Ga finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So	ries vn lab on March pacity: Flow Ca as, Steam e (Dual Ring) Lift plutions Final C	n 24, 1982 pacity, K Control US LP {AGC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Air	UV
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	V
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Air	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	V
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Air	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	V
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Air	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	V
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Air	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	V
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Air	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	V
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Air	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	V
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Air	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	V
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Air	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	V
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Air	UV

4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	V
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Air	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	V
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Air	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	V
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Air	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	V
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	UV
Design Name: Kunkle 920, 921, 927, Agco A (High Temp. NBCert # 36098 water)							
Manufacturer/Assembler Designators						piration Date	
Assembler V							
Assembler			V		12/	11/2026	
Assembler Design Type			V		12/	11/2026	
Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: O Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em	unkle 920, 921, 927, Sec. V at unknown la lishing Relieving Cap 0.878 Unitless eam; Certified: Stean finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So	Agco A (High T b on May 19, 1 hacity: Flow Ca n (Single Ring) Lift plutions Final C	V Femp. water) 969 pacity, K Control US LP {AGC}		12/	11/2026	
Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: O Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em	unkle 920, 921, 927, Sec. V at unknown la lishing Relieving Cap 0.878 Unitless eam; Certified: Stean finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Se Outlet Size	Agco A (High T b on May 19, 1 bacity: Flow Ca n (Single Ring) Lift Dutions Final C Flow Area	V Femp. water) 969 pacity, K Control US LP {AGC} Orifice [designator] dia.	Lift	12/ Set Pressure Range	11/2026 Media	Designator
Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: O Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em Inlet Size 0.5-1 NPS	unkle 920, 921, 927, Sec. V at unknown la lishing Relieving Cap 0.878 Unitless eam; Certified: Stean finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size .75, 1 NPS	Agco A (High T b on May 19, 1 acity: Flow Ca n (Single Ring) Lift Dutions Final C Flow Area 0.1213 in ²	V Femp. water) 969 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in	Lift 0.106 in	12/ Set Pressure Range 15-1400 psi	Media Steam	Designator
Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: O Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em Inlet Size 0.5-1 NPS 0.75-1.25 NPS	unkle 920, 921, 927, Sec. V at unknown la lishing Relieving Cap 0.878 Unitless eam; Certified: Stean finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size .75, 1 NPS 1.25 NPS	Agco A (High T b on May 19, 1 acity: Flow Ca n (Single Ring) Lift olutions Final C Flow Area 0.1213 in ² 0.2157 in ²	V Femp. water) 969 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in [E] 0.524 in	Lift 0.106 in 0.142 in	12/ Set Pressure Range 15-1400 psi 15-1100 psi	Media Steam Steam	Designator V V
Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: C Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em 0.5-1 NPS 0.75-1.25 NPS 1-1.5 NPS	unkle 920, 921, 927, Sec. V at unknown la lishing Relieving Cap 0.878 Unitless eam; Certified: Stean finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size .75, 1 NPS 1.25 NPS 1.5 NPS	Agco A (High T b on May 19, 1 hacity: Flow Ca n (Single Ring) Lift olutions Final C Flow Area 0.1213 in ² 0.2157 in ² 0.3369 in ²	V Femp. water) 969 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in [E] 0.524 in [F] 0.655 in	Lift 0.106 in 0.142 in 0.177 in	12/ Set Pressure Range 15-1400 psi 15-1100 psi 15-1100 psi	Media Steam Steam Steam	Designator V V V
Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: C Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em 0.5-1 NPS 0.75-1.25 NPS 1.25-2 NPS	unkle 920, 921, 927, Sec. V at unknown la lishing Relieving Cap 0.878 Unitless eam; Certified: Stean finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Se Outlet Size .75, 1 NPS 1.25 NPS 1.5 NPS 2 NPS	Agco A (High T b on May 19, 1 hacity: Flow Ca n (Single Ring) Lift olutions Final C Flow Area 0.1213 in ² 0.2157 in ² 0.3369 in ²	V Femp. water) 969 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in [E] 0.524 in [F] 0.655 in [G] 0.839 in	Lift 0.106 in 0.142 in 0.177 in 0.227 in	12/ Set Pressure Range 15-1400 psi 15-1100 psi 15-1100 psi 15-1100 psi	11/2026 Media Steam Steam Steam Steam	Designator V V V V
Assembler Design Type [Safety Valve] K Capacity Tests: So Method of Estable Certified Value: O Media - Test: Sta Set Pressure De Blowdown Chara Elow Area Config Designed by: Em 0.5-1 NPS 0.75-1.25 NPS 1.25-2 NPS	unkle 920, 921, 927, Sec. V at unknown la lishing Relieving Cap).878 Unitless eam; Certified: Stean finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size .75, 1 NPS 1.25 NPS 1.5 NPS 2 NPS 2.5 NPS	Agco A (High T b on May 19, 1 acity: Flow Ca n (Single Ring) Lift olutions Final C Flow Area 0.1213 in ² 0.2157 in ² 0.3369 in ² 0.553 in ² 0.864 in ²	V Femp. water) 969 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in [E] 0.524 in [F] 0.655 in [G] 0.839 in [H] 1.049 in	Lift 0.106 in 0.142 in 0.177 in 0.227 in 0.283 in	12/ Set Pressure Range 15-1400 psi 15-1100 psi 15-1100 psi 15-1100 psi 15-1100 psi	Media Steam Steam Steam Steam Steam Steam	Designator V V V V V V
Assembler Design Type [Safety Valve] K Safety Valve] K	unkle 920, 921, 927, Sec. V at unknown la lishing Relieving Cap 0.878 Unitless eam; Certified: Stean finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size .75, 1 NPS 1.25 NPS 1.5 NPS 2 NPS 2.5 NPS 3 NPS	Agco A (High T b on May 19, 1 acity: Flow Ca n (Single Ring) Lift olutions Final C Flow Area 0.1213 in ² 0.2157 in ² 0.3369 in ² 0.553 in ² 0.864 in ² 1.415 in ²	V Femp. water) 969 pacity, K Control US LP {AGC} [0] 0.393 in [1] 0.524 in [1] 0.655 in [2] 0.839 in [3] 0.839 in [4] 1.049 in [J] 1.342 in	Lift 0.106 in 0.142 in 0.177 in 0.227 in 0.283 in 0.363 in	12/ Set Pressure 15-1400 psi 15-1100 psi 15-1100 psi 15-1100 psi 15-1000 psi 15-1000 psi 15-800 psi 15-800 psi	Media Steam Steam Steam Steam Steam Steam Steam	Designator V

Allied Valve, Inc. (TPW)

Appleton, WI 54913United States

Design Name: 1700 & 2700	NBCert # 181	00
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/01/2027

[Safety Valve] 1700 & 2700 Capacity Tests: Sec. UV, V at Dresser, Inc. on August 1, 1957 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	3 NPS	0.442 in ²	[#9] 0.75 in	0.188 in	15-3000 psi	Steam	UV
1-1.5 NPS	3 NPS	0.442 in ²	[#9] 0.75 in	0.188 in	50-3000 psi	Steam	V
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[#1] 1.125 in	0.281 in	15-3100 psi	Steam	UV
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[#1] 1.125 in	0.281 in	50-5800 psi	Steam	V
1.5-2.5 NPS	3 - 6 NPS	1.431 in ²	[#2] 1.35 in	0.338 in	15-3100 psi	Steam	UV
1.5-2.5 NPS	3 - 6 NPS	1.431 in ²	[#2] 1.35 in	0.338 in	50-5800 psi	Steam	V
4 NPS	4 dual NPS	1.84 in ²	[K] 1.531 in	0.383 in	50-5800 psi	Steam	V
2-3 NPS	6 NPS	2.545 in ²	[#3] 1.8 in	0.45 in	50-5800 psi	Steam	UV, V
2.5-2.5 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-2575 psi	Steam	UV
2.5-2.5 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	50-2575 psi	Steam	V
2.5-3 NPS	6, 8 NPS	3.341 in ²	[#5] 2.062 in	0.516 in	15-3100 psi	Steam	UV
2.5-3 NPS	6, 8 NPS	3.341 in ²	[#5] 2.062 in	0.516 in	50-5800 psi	Steam	V
3-3 NPS	6, 8 NPS	3.976 in ²	[#4] 2.25 in	0.563 in	15-3100 psi	Steam	UV
3-3 NPS	6, 8 NPS	3.976 in ²	[#4] 2.25 in	0.563 in	50-5800 psi	Steam	V
4 NPS	6,8 NPS	7.07 in ²	[#6] 3 in	0.75 in	15-3100 psi	Steam	UV
4 NPS	6,8 NPS	7.07 in ²	[#6] 3 in	0.75 in	50-3100 psi	Steam	V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-2000 psi	Steam	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	50-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.948 in	0.987 in	15-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.948 in	0.987 in	15-2000 psi	Steam	UV
6 NPS	8, 10 NPS	14.18 in ²	[#8] 4.25 in	1.063 in	15-1800 psi	Steam	UV
6 NPS	8, 10 NPS	14.18 in ²	[#8] 4.25 in	1.063 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	1.129 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	16 in ²	[R] 4.515 in	1.129 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	19.29 in²	[RR] 4.956 in	1.24 in	50-2200 psi	Steam	UV, V
8-10 NPS	10,12 NPS	28.3 in ²	[T] 6 in	1.5 in	50-1500 psi	Steam	UV, V
Design Name	e: 1700 & 27(# 18100)	00 (Restrict	ed Lift version of	Cert. NBCert #	ŧ 18111		
Manufacturer/A	ssembler		Designato	rs	E	piration Date	

	, in the second s	
Assembler	UV, V	09/01/2027
[Safety Valve] 1700 & 2700 (Restricted Lift version of Cert. # 18100) Capacity Tests: Sec. UV, V at unknown lab on October 13, 1981 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless; Certification Provisions: Restricted Lift (Prev. CC 1923 &/or 1945) Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	3 NPS	0.442 in ²	[9] 0.75 in	0.08 in	15-3000 psi	Steam	UV
1-1.5 NPS	3 NPS	0.442 in ²	[9] 0.75 in	0.08 in	50-3000 psi	Steam	V
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[1] 1.125 in	0.084 in	15-3100 psi	Steam	UV
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[1] 1.125 in	0.084 in	50-5800 psi	Steam	V
1.5-2.5 NPS	3-6 NPS	1.431 in ²	[2] 1.35 in	0.101 in	15-3100 psi	Steam	UV
1.5-2.5 NPS	3-6 NPS	1.431 in ²	[2] 1.35 in	0.101 in	50-5800 psi	Steam	V
2-3 NPS	6 NPS	2.545 in ²	[3] 1.8 in	0.135 in	15-3100 psi	Steam	UV
2-3 NPS	6 NPS	2.545 in ²	[3] 1.8 in	0.135 in	50-5800 psi	Steam	V
2.5-3 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.143 in	15-2575 psi	Steam	UV
2.5-3 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.143 in	50-2575 psi	Steam	V
2.5-3 NPS	6, 8 NPS	3.341 in ²	[5] 2.062 in	0.155 in	15-3100 psi	Steam	UV
2.5-3 NPS	6, 8 NPS	3.341 in ²	[5] 2.062 in	0.155 in	50-5800 psi	Steam	V
3-4 NPS	6, 8 NPS	3.976 in ²	[4] 2.25 in	0.169 in	15-3100 psi	Steam	UV
3-4 NPS	6, 8 NPS	3.976 in ²	[4] 2.25 in	0.169 in	50-5800 psi	Steam	V
4 NPS	6, 8 NPS	7.07 in ²	[6] 3 in	0.225 in	15-3100 psi	Steam	UV
4 NPS	6, 8 NPS	7.07 in ²	[6] 3 in	0.225 in	50-3100 psi	Steam	V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.281 in	15-2000 psi	Steam	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.281 in	50-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.946 in	0.296 in	15-2000 psi	Steam	UV, V
6-8 NPS	8, 10 NPS	14.18 in ²	[8] 4.25 in	0.319 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	14.18 in ²	[8] 4.25 in	0.319 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	0.339 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	0.339 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	19.29 in ²	[RR] 4.956 in	0.372 in	50-2200 psi	Steam	V
8-10 NPS	10, 12 NPS	28.3 in ²	[T] 6 in	0.45 in	50-1500 psi	Steam	UV, V

Design Name: 1811, 1511

NBCert #

18122

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/01/2027

[Safety Valve] 1811, 1511 Capacity Tests: Sec. UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Steam	UV, V
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Air	UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Steam	UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Air	UV
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Air	UV
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Air	UV
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Steam	UV, V
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Air	UV
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Steam	UV, V
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Air	UV
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Steam	UV, V
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Air	UV
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV
Design Name	e: 1900, 1900 (Liquids))-30 1900-3	35 LA & DALA	NBCert a	# 18784		
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Assembler			UV		11	1/11/2024	
Design Type							
[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V

1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V
6-6 NPS	8 NPS	12.851 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V
6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V

Design Name:

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/01/2024

Design Type

[Safety Relief Valve] 1900, 1900-30, 1900-35

Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam

Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV

3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV

Desian	Name:	19000	Series
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/20/2024
Design Type		
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop		

Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV

0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV
221110							
	10000 Cor	ing Liquid			40747		
Design Name	e: 19000 Ser	ies, Liquid		NBCert a	¥ 18717		
Design Name Manufacturer/A	e: 19000 Ser ssembler	ies, Liquid	Designato	NBCert a	# 18717 Ex	piration Date	_
Design Name Manufacturer/A Assembler	e: 19000 Ser ssembler	ies, Liquid	Designato	NBCert a	# 18717 Ex 09	piration Date	
Design Name Manufacturer/A Assembler Design Type	e: 19000 Ser ssembler	ies, Liquid	Designato	NBCert a	# 18717 Ex 09.	piration Date	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Car 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ}	ies, Liquid nc. on August 3 bacity: Flow Cap Liquid Stream Lift	Designato UV 0, 1994 bacity, K	NBCert a	# 18717 Ex 09	piration Date /20/2024	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: (Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Car 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size	ies, Liquid nc. on August 3 bacity: Flow Cap Liquid Stream Lift Flow Area	Designato UV 0, 1994 bacity, K Orifice [designator] dia.	NBCert a	# 18717 Ex 09. Set Pressure Range	piration Date /20/2024 Media	Designator
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Car 0.673 Unitless ater/Liquid; Certified: dinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Cap Liquid Stream Lift Flow Area 0.019 in ²	Designato UV 00, 1994 bacity, K Orifice [designator] dia. 0.156 in	NBCert a	# 18717 Ex 09, Set Pressure Range 15-15000 psi	piration Date /20/2024 Media Water	Designator UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Cap Liquid Stream Lift Flow Area 0.019 in ² 0.019 in ²	Designato UV 00, 1994 bacity, K Orifice [designator] dia. 0.156 in 0.156 in	NBCert a	# 18717 Ex 09 09 09 09	piration Date /20/2024 /20/202	Designator UV NV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS 1 NPS	ies, Liquid nc. on August 3 pacity: Flow Cap Liquid Stream Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ²	Designato UV 0, 1994 bacity, K Orifice [designator] dia. 0.156 in 0.156 in 0.35 in	NBCert 7	 # 18717 Ex 09. 30. Set Pressure Range 15-15000 psi 15-15000 psi 15-5000 psi 	piration Date /20/2024 /20/20/	Designator UV NV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: (Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Car D.673 Unitless ater/Liquid; Certified: difinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS 1 NPS 1 NPS 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Cap Liquid Stream Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ²	Designato UV 0, 1994 Doacity, K Orifice (designator] dia. 0.156 in 0.35 in 0.35 in	NBCert 7	 4 18717 Ex 09 30 515000 psi 15-5000 psi 15-5000 psi 	piration Date (20/2024 (20/2024) (20/20) (20/20) (20/20) (20/20) (20/20) (20/20) (20/2	Designator UV NV UV NV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure Des Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Car 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS 1 NPS 1 NPS 1 NPS 1 NPS 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Cap Liquid Stream Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.11 in ²	Designato UV 00, 1994 bacity, K 0.156 in 0.156 in 0.35 in 0.375 in	NBCert 3 ors Lift 0.045 in 0.045 in 0.11 in 0.11 in 0.118 in	 4 18717 Ex 09. 7.000 15-15000 psi 15-5000 psi 15-5000 psi 15-5000 psi 15-5000 psi 15-290 psi 	piration Date (20/2024 (20/2024) (20/20) (20/20) (20/20) (20/20) (20/20) (20/20) (20/2	Designator UV NV NV NV NV N N N N N </td
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Cap Liquid Stream Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.11 in ²	Designato UV 00, 1994 Doacity, K 00, 1994 Designator 00, 1994 Designator 0.156 in 0.156 in 0.355 in 0.375 in 0.375 in	NBCert 7 ors Lift 0.045 in 0.045 in 0.11 in 0.118 in 0.118 in	# 18717 Ex 09 09 09 Set Pressure 1 15-15000 psi 1 15-5000 psi 1 15-5000 psi 1 15-290 psi 1 15-290 psi 1	piration Date 20/2024 Addia Water Water Water Water Water Water Water Water	NV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: difinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	ies, Liquid	Designato UV 30, 1994 Orifice (Jacobi (Strate)) 0.156 in 0.156 in 0.35 in 0.375 in 0.375 in 0.375 in 0.401 in	NBCert 3 ors Lift 0.045 in 0.045 in 0.11 in 0.118 in 0.118 in 0.126 in	# 18717 Ex 09 09 09 Set Pressure 0 15-15000 psi 1 15-5000 psi 1 15-5000 psi 1 15-290 psi 1 15-290 psi 1 15-8000 psi 1	piration Date (20/2024 (20/2024) (20/20) (20/20) (20/20) (20/20) (20/20) (20/20) (20/2	Designator UV NV NV UV NV N N N N N </td
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS	2000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Car D.673 Unitless ater/Liquid; Certified: distribution: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Cap Liquid Stream Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.11 in ² 0.126 in ²	Designato UV 0, 1994 Doacity, K 0, 1994 Crifice (1, 10, 10, 10, 10, 10, 10, 10, 10, 10, 1	NBCert 3 ors Lift 0.045 in 0.045 in 0.11 in 0.118 in 0.118 in 0.118 in 0.126 in 0.126 in	# 18717 Ex 09 09 09 Set Pressure 1 15-15000 psi 1 15-5000 psi 1 15-5000 psi 1 15-5000 psi 1 15-290 psi 1 15-290 psi 1 15-8000 psi 1 15-8000 psi 1	piration Date (20/2024 (20/2024) (20/20) (20/2024) (20/20) (20/20) (20/20) (20/20) (20/20) (20/2	NV

1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV	
Design Nam	<u>⊳</u> ∙ 1082			NRCert	# 1837	Q		
Design Name	5. 1902			NDCen	<i>π</i> 1007	J		
Manufacturer/A	ssembler		Designat	ors	1	Expiration Date		
Assembler			UV		(06/10/2027		
Design Type								
Capacity Keiler Va Capacity Tests: Method of Estab Certified Value: Media - Test: St Set Pressure De Blowdown Chara Flow Area Confi Designed by: Dr	[Safety Relief Valve] 1982 Capacity Tests: Sec. NV, -Class 2, -Class 3, UV at National Board Testing Lab (Picaway) on May 6, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5 NPS	.75 NPS	0.121 in ²	0.393 in	0.092 in	15-500 psi	Air	NV, UV	
0.5 NPS	.75 NPS	0.121 in ²	0.393 in	0.092 in	15-500 psi	Steam	NV, UV	
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Air	NV, UV	
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Steam	NV, UV	
1 NPS	1.5 NPS	0.332 in ²	0.65 in	0.15 in	15-500 psi	Air	NV, UV	
1 NPS	1.5 NPS	0.332 in ²	0.65 in	0.15 in	15-500 psi	Steam	NV, UV	
1.5 NPS	2 NPS	0.857 in ²	1.045 in	0.243 in	15-500 psi	Air	NV, UV	
1.5 NPS	2 NPS	0.857 in ²	1.045 in	0.243 in	15-500 psi	Steam	NV, UV	
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.31 in	15-500 psi	Steam	NV, UV	
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.31 in	15-500 psi	Air	NV, UV	
Design Name	e: 1982 LS, 8	320000LS		NBCert	# 1838	0		
Manufacturer/A	ssembler		Designat	ors		Expiration Date		
Assembler			UV		(09/20/2024		
Design Type								
[Relief Valve] 15 Capacity Tests: 3 Method of Estab Certified Value: 9 Media - Test: W	Design Type [Relief Valve] 1982 LS, 820000LS Capacity Tests: Sec. UV at Dresser, Inc. on December 19, 1984 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.758 Unitless Media - Test: Water/Liquid: Certified: Liquid							

Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-0.75 NPS	.75 - 1 NPS	0.121 in ²	0.393 in	0.137 in	15-500 psi	Water	NV		
0.5-0.75 NPS	.75 - 1 NPS	0.121 in ²	0.393 in	0.137 in	15-500 psi	Water	UV		
0.75-1 NPS	1 , 1.5 NPS	0.216 in ²	0.524 in	0.162 in	15-500 psi	Water	NV		
0.75-1 NPS	1 , 1.5 NPS	0.216 in ²	0.524 in	0.162 in	15-500 psi	Water	UV		
1-1.25 NPS	1.5 NPS	0.332 in ²	0.65 in	0.236 in	15-500 psi	Water	NV		
1-1.25 NPS	1.5 NPS	0.332 in ²	0.65 in	0.236 in	15-500 psi	Water	UV		
1.5-2 NPS	2, 2.5 NPS	0.857 in ²	1.045 in	0.343 in	15-500 psi	Water	NV		
1.5-2 NPS	2, 2.5 NPS	0.857 in ²	1.045 in	0.343 in	15-500 psi	Water	UV		
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.43 in	15-500 psi	Water	NV		
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.43 in	15-500 psi	Water	UV		
Design Name	esign Name: 3900 (39PV, 39MV pilots) NBCert # 18447								

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/01/2027

Design Type

[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on May 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Air	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	NV

2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-750 psi	Steam	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	UV
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Air	UV
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-700 psi	Steam	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Air	UV

10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-750 psi	Steam	UV		
Design Name: 3900 (39PV, 39MV pilots, liquid) NBCert # 18458									
Manufacturer/A	ssembler		Designato	ors	i	Expiration Date			
Assembler			UV			1/01/2024			
Design Type [Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots, liquid)									
Capacity Tests: Sec. UV at Dresser, Inc. on June 1, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.743 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	NV		
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	UV		
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	NV		
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	UV		
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	NV		
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	UV		
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	NV		
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	UV		
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	NV		
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	UV		
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	NV		
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	UV		
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Water	UV		
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	NV		
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	UV		
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Water	UV		
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	NV		
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	UV		
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	NV		
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	UV		
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	NV		
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	UV		
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Water	UV		
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	NV		
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	UV		
4 NPS	6 NPS	10.76 in²	3.701 in	1 in	15-3750 psi	Water	UV		
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	NV		
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	UV		

6 NPS	8 NPS	18.6 in²	[R] 4.866 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	18.6 in²	[R] 4.866 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.95 in²	5.636 in	1.31 in	15-1500 psi	Water	UV
8 NPS	10 NPS	30.21 in²	[T] 6.205 in	2 in	15-1500 psi	Water	NV
8 NPS	10 NPS	30.21 in²	[T] 6.205 in	2 in	15-1500 psi	Water	UV
8 NPS	10 NPS	44.18 in²	7.5 in	2 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	63.62 in²	[W] 9 in	3 in	15-1500 psi	Water	NV
10 NPS	10-14 NPS	63.62 in²	[W] 9 in	3 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Water	UV

Design Name: C776	NBCert # 364	25
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/10/2027
Design Type		

[Safety Relief Valve] C776 Capacity Tests: Sec. UV at Crosby Valve, LLC on July 15, 2002 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.790 Unitless Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Regulator Technologies - Fromex S.A. de C.V. {FCF}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75, 1 NPS	0.169 in ²	0.465 in	0.116 in	15-600 psi	Air	UV
1 NPS	1.25 NPS	0.34 in ²	0.658 in	0.164 in	15-500 psi	Air	UV
0.75-1 NPS	1.25 NPS	0.486 in ²	0.787 in	0.197 in	15-600 psi	Air	UV
1.25 NPS	1.5 NPS	0.645 in ²	0.906 in	0.227 in	15-500 psi	Air	UV
1.5 NPS	2 NPS	1.024 in ²	1.142 in	0.286 in	15-500 psi	Air	UV
2-2.5 NPS	2.5 NPS	1.667 in ²	1.457 in	0.364 in	15-500 psi	Air	UV

Design Name:	Kunkle 6000, 6252 Series		NBCert # 3	6324	
Manufacturer/Asse	nbler	Designators		Expiration Date	
Assembler		UV, V		12/15/2027	
Design Type					
[Safety Valve] Kunkl Capacity Tests: Sec. Method of Establishin Certified Value: 0.878	e 6000, 6252 Series UV, V at unknown lab on March 24, 1982 ng Relieving Capacity: Flow Capacity, K 3 Unitless				
Media - Test: Steam	Certified Air Gas Steam				

Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Air	UV

0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	V
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Air	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	V
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Air	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	V
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in²	[G] 0.84 in	0.2 in	15-300 psi	Air	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	V
1.25-1.5 NPS	1.5, 2 NPS	0.554 in²	[G] 0.84 in	0.2 in	15-300 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Air	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	V
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in²	[J] 1.342 in	0.32 in	15-300 psi	Air	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	V
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Air	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	V
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Air	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	V
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Air	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	V
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Air	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	V
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Air	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	V
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Air	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	V
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Air	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	V
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	UV

Design Name	e: Kunkle 91	0 to 919		NBCert	# 36100			
Manufacturer/A	ssembler		Designat	ors	E	xpira <u>tion Date</u>		
Assembler			UV		09	9/01/2027		
Design Type								
[Safety Relief Valve] Kunkle 910 to 919 Capacity Tests: Sec. UV at unknown lab on May 19, 1969 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Air	UV	
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Steam	UV	
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Air	UV	
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Steam	UV	
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Air	UV	
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Steam	UV	
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Air	UV	
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Steam	UV	
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Air	UV	
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Steam	UV	
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Air	UV	
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	UV	
Design Name	e: Kunkle 91 and 929 (\$	0 to 919 (S Sect. I Liqui	ect. VIII Liquid), 9 id)	⁹²⁸ NBCert	# 36111			
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	1	
Assembler			UV		09	9/01/2027		
Design Type [Relief Valve] K	unkle 910 to 919 (Se	ect VIII Liquid)	928 and 929 (Sect 11	iquid)				
[Relief valve] Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid) Capacity Tests: Sec. UV, V at unknown lab on May 8, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.710 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.75 , 1 NPS	0.1213 in ²	[D] 0.393 in	0.126 in	15-1400 psi	Water	UV, V	
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.168 in	15-1000 psi	Water	UV, V	

[F] 0.655 in

[G] 0.839 in

0.21 in

0.268 in

0.3369 in²

0.553 in²

1-1.5 NPS

1.25-2 NPS

1.5 NPS

2 NPS

15-700 psi

15-600 psi

UV, V

UV, V

Water

Water

1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.336 in	15-500 psi	Water	UV, V
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.429 in	15-500 psi	Water	UV, V

Applied Control Equipment, LLLP (APP)

Commerce City, CO 80022United States

This Company Manufactures or Assembles:

Design Nam	e: 243/249/4 49/8043/8	43/449/546 049	/843/849/943/504	46/50 NBCert	# 01292			
Manufacturer/A	Assembler		Designato	ors	E	xpiration Date		
Assembler			UV		02	2/05/2025		
Design Type								
[Pilot Operated Pressure Relief Valve] 243/249/443/449/546/843/849/943/5046/5049/8043/8049 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on August 8, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-15000 psi	Air	UV	
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-720 psi	Steam	UV	
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	15-10600 psi	Air	UV	
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	25-720 psi	Steam	UV	
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-15000 psi	Air	UV	
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-720 psi	Steam	UV	
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-10600 psi	Air	UV	
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-720 psi	Steam	UV	
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-10600 psi	Air	UV	
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-720 psi	Steam	UV	
6 NPS	8, 10 NPS	18.597 in²	[R] 4.866 in	2.435 in	15-10600 psi	Air	UV	
6 NPS	8, 10 NPS	18.597 in²	[R] 4.866 in	2.435 in	15-720 psi	Steam	UV	
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-10600 psi	Air	UV	
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-720 psi	Steam	UV	

253/259/453/459/853/859/953/959/5059/80 53/8059 NBCert #

Design Name:

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/05/2025

Nameplate Abbreviation: Applied Control

[Pilot Operated Pressure Relief Valve] 253/259/453/459/853/859/953/959/5059/8053/8059 Capacity Tests: Sec. UV at unknown lab on July 31, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.627 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.205 in ²	[D] 0.674 in	0.079 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-15000 psi	Air	UV
1.5 NPS	2, 3 NPS	0.831 in ²	[G] 1.078 in	0.241 in	15-10600 psi	Air	UV
2 NPS	3 NPS	0.85 in ²	[G] 1.38 in	0.191 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.312 in ²	[H] 1.38 in	0.295 in	15-15000 psi	Air	UV
3 NPS	4 NPS	3.043 in ²	[K] 2.055 in	0.461 in	15-10600 psi	Air	UV
3 NPS	3 NPS	2.132 in ²	[J] 2.055 in	0.323 in	15-10600 psi	Air	UV
4 NPS	6 NPS	4.729 in ²	[L] 3.12 in	0.477 in	15-10600 psi	Air	UV
4 NPS	6 NPS	5.959 in ²	[M] 3.12 in	0.601 in	15-10600 psi	Air	UV
4 NPS	6 NPS	7.188 in ²	[N] 3.12 in	0.725 in	15-10600 psi	Air	UV
6 NPS	8, 10 NPS	18.294 in²	[Q] 4.866 in	1.185 in	15-10600 psi	Air	UV

263/269/463/469/566/863/869/963/969/506 NBCert #

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/05/2025

Design Type

[Pilot Operated Pressure Relief Valve] 263/269/463/469/566/863/869/963/969/5066/5069 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on July 30, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.860 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-10600 psi	Air	UV
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-720 psi	Steam	UV
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-10600 psi	Air	UV
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-720 psi	Steam	UV
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-10600 psi	Air	UV
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-720 psi	Steam	UV
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-10600 psi	Air	UV
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-2220 psi	Steam	UV
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-10600 psi	Air	UV
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-720 psi	Steam	UV

8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-10600 psi	Air	UV
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-720 psi	Steam	UV
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-10600 psi	Air	UV
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-720 psi	Steam	UV
8 NPS	10 NPS	37.523 in ²	6.912 in	3.802 in	15-1480 psi	Air	UV
8 NPS	10 NPS	37.523 in ²	6.912 in	3.802 in	15-720 psi	Steam	UV
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-1480 psi	Air	UV
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-720 psi	Steam	UV
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-10600 psi	Air	UV
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-720 psi	Steam	UV

Design Name:	443/449/546/843/849/943/949 (Liquids)	0/5046/5049 NBCert # 013	37	
Manufacturer/Assem	bler	Designators	Expiration Date	
Assembler		UV	02/06/2025	
Design Type				
[Pilot Operated Press Capacity Tests: Sec. L Method of Establishin Certified Value: 0.767	ure Relief Valve] 443/449/546/843/849/9 JV, V at Crosby Valve, LLC on August 5, g Relieving Capacity: Flow Capacity, K Unitless	43/949/5046/5049(Liquids) 1997		

Media - Test: Water/Liquid; Certified: Liquid

Set Pressure Definition: First Steady Stream

Blowdown Characteristics: Fixed

Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.21 in	15-7600 psi	Water	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.51 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.82 in	15-7600 psi	Water	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-7600 psi	Water	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.62 in	15-7600 psi	Water	UV
6 NPS	8, 10 NPS	15.904 in ²	[R] 4.5 in	2.435 in	15-7600 psi	Water	UV
8 NPS	10 NPS	28.274 in ²	[T] 6 in	3.12 in	15-7600 psi	Water	UV

Design Name:

Manufacturer/Assembler

3/459/853/859/953/959/5059 (Liquids) N

UV

Cert #

12/02/2025

Designators Expiration Date

Assembler

Design Type

[Pilot Operated Pressure Relief Valve] 453/459/853/859/953/959/5059 (Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.491 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	UV	
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	V	
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	UV	
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	V	
1.5 NPS	2, 3 NPS	0.911 in ²	[G] 1.078 in	0.264 in	15-7600 psi	Water	UV	
1.5 NPS	2, 3 NPS	0.911 in ²	[G] 1.078 in	0.264 in	15-7600 psi	Water	V	
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	UV	
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	V	
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	UV	
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	V	
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	UV	
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	V	
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	UV	
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	V	
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	V	
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	V	
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	V	
6 NPS	8, 10 NPS	15.885 in²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	UV	
6 NPS	8, 10 NPS	15.885 in ²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	V	
	400/400/5/		1000100015000150					
Design Name	e: (Liquids)	00/803/809/	/903/909/5000/50	NBCert #	# 01348			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	ı.	
Assembler			UV		02	/05/2025		
Design Type								
[Pilot Operated Pressure Relief Valve] 463/469/566/863/869/963/969/5066/5069 (Liquids) Capacity Tests: Sec. UV at Crosby Valve, LLC on August 27, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.712 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-7600 psi	Water	UV	
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-7600 psi	Water	UV	
3 NPS	4 NPS	6.733 in ²	2.928 in	1.315 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-7600 psi	Water	UV	
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-7600 psi	Water	UV	

8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-7600 psi	Water	UV			
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-7600 psi	Water	UV			
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-7600 psi	Water	UV			
Design Name: 81, 81P, 83, 86 NBCert # 01089										
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date				
Assembler			UV		02/	05/2025				
Design Type										
[Safety Relief Valve] 81, 81P, 83, 86 Capacity Tests: Sec. UV at Phillips Petroleum on July 8, 1965 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.816 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-2 NPS	.75 - 2 NPS	0.012 in ²	[-2] 0.125 in	0.05 in	20-10000 psi	Air	UV			
0.5-2 NPS	.75 - 2 NPS	0.028 in ²	[-3] 0.188 in	0.06 in	20-10000 psi	Air	UV			
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-10000 psi	Air	UV			
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-5000 psi	Air	NV			
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-720 psi	Steam	UV			
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-5000 psi	Air	NV			
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-9600 psi	Air	UV			
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-5000 psi	Air	NV			
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-6000 psi	Air	UV			
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-720 psi	Steam	UV			
1.5 NPS	2 NPS	0.307 in ²	[F] 0.625 in	0.28 in	20-4040 psi	Air	UV			
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-6000 psi	Air	UV			
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-720 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.785 in ²	[H] 1 in	0.41 in	20-2580 psi	Air	UV			
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-1620 psi	Air	UV			
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-720 psi	Steam	UV			

Design Name: 81P (Liquids)

BCert #

Manufacturer/AssemblerDesignatorsExpiration DateAssemblerUV12/02/2025

[Relief Valve] 81P (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on November 26, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.720 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: 93% of pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-5000 psi	Water	NV
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-6250 psi	Water	UV, V
0.75-2 NPS	1 - 2 NPS	0.11 in ²	[-6] 0.375 in	0.13 in	50-6000 psi	Water	UV, V
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-5000 psi	Water	NV
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-6000 psi	Water	UV, V
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	50-6000 psi	Water	UV, V
2-2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	50-1620 psi	Water	UV, V

Design Name: 900 Series (Liquid), 7700, SNC

NBCert #

15499

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	12/02/2025

Design Type

[Relief Valve] 900 Series (Liquid), 7700, SNC Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 9, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.661 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	NV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	NV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	UV, V
1-1.5 NPS	1.5 - 2 NPS	0.2951 in ²	0.613 in	0.265 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	NV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV, V
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	NV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV, V

Design Nam	e: 900 Series	s, 7700, SN	IC	NBCert	# 15411				
Manufacturer/A	Assembler		Designat	ors	E	xpiration Date	9		
Assembler			UV		0	2/05/2025			
Design Type									
[Safety Relief Valve] 900 Series, 7700, SNC Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on February 14, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV		
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-2900 psi	Steam	NV, UV		
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Air	UV		
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-2900 psi	Steam	NV, UV		
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Air	UV		
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-2900 psi	Steam	NV, UV		
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-2900 psi	Steam	NV, UV		
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Air	UV		
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-2900 psi	Steam	NV, UV		
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Air	UV		
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-2900 psi	Steam	NV, UV		

0.274 in

15-5000 psi

Air

UV

Design Type

1.5 NPS

2.5 NPS

[Safety Relief Valve] JLT/JLT-JDS (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 5, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.656 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

0.5674 in²

[#9] 0.85 in

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	NV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	UV, V

1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	NV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	NV
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	NV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	UV, V
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	NV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	UV, V
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	NV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	UV, V
3 NPS	4-6 NPS	2.109 in ²	1.639 in	0.632 in	15-3705 psi	Water	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	NV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	UV, V
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	NV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	UV, V
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	NV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	NV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	1.232 in	15-1500 psi	Water	UV, V
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Water	UV, V
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	NV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	UV, V
8 NPS	10, 12 NPS	29.359 in ²	[T] 6.114 in	2.361 in	15-740 psi	Water	NV
8 NPS	10, 12 NPS	29.359 in ²	[T] 6.114 in	2.361 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	NV

Design Name:

JLT-JBS/JLT-JDS, 8500, ACL/ABLNBCe

15512

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/05/2025

Design Type

[Safety Relief Valve] JLT-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABL Capacity Tests: Sec. UV at Crosby Valve, LLC on June 28, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.870 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Air	UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Air	UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Air	UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Air	UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Air	UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Air	UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Air	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Air	UV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Air	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Air	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Air	UV
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Air	UV

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/05/2025

Design Type

[Safety Relief Valve] JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-E, 8400, AC/AB Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on April 1, 1975

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.865 Unitless

Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam

Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Single Ring)

Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.121 in	15-15000 psi	Air	NV, UV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.121 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.151 in	15-2000 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.151 in	15-8490 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-15000 psi	Air	NV, UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-15000 psi	Air	NV, UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-2000 psi	Steam	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.265 in	15-15000 psi	Air	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.265 in	15-2000 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.331 in	15-15000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.331 in	15-2000 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-10000 psi	Air	NV, UV

2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-2000 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-10000 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-2000 psi	Steam	NV, UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-1000 psi	Steam	NV, UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-3000 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-2000 psi	Steam	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-5000 psi	Air	NV, UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-2000 psi	Steam	NV, UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-5000 psi	Air	NV, UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-1480 psi	Steam	NV, UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-3000 psi	Air	NV, UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Air	NV, UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Steam	NV, UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.945 in	15-1480 psi	Steam	NV, UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.945 in	15-3000 psi	Air	NV, UV
6 NPS	8 NPS	11.045 in ²	3.75 in	1.243 in	15-1000 psi	Steam	NV, UV
6 NPS	8 NPS	11.045 in ²	3.75 in	1.243 in	15-3750 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Steam	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Air	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-1480 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-3000 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Steam	NV, UV
8 NPS	10 NPS	18.254 in ²	4.821 in	1.907 in	15-2250 psi	Air	NV, UV
8 NPS	10 NPS	18.254 in ²	4.821 in	1.907 in	15-2250 psi	Steam	NV, UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	1.907 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	29.359 in²	[T] 6.114 in	1.907 in	15-740 psi	Steam	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Steam	NV, UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Air	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Steam	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Air	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Steam	UV

Applied Valve Technology, Inc. (AVT)

Chattanooga, TN 37406United States

This Company Manufactures or Assembles:

Design Name	e: Kunkle 600	00, 6252 Se	eries	NBCert #	# 36324						
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date					
Assembler			UV, V		06/	20/2024					
Design Type											
[Safety Valve] Kunkle 6000, 6252 Series Capacity Tests: Sec. UV, V at unknown lab on March 24, 1982 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Air	UV				
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	V				
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	UV				
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Air	UV				
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	V				
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	UV				
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Air	UV				
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	V				
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	UV				
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Air	UV				
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	V				
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	UV				
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Air	UV				
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	V				
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	UV				
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Air	UV				
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	V				
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	UV				
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Air	UV				
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	V				
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	UV				
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Air	UV				
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	V				

2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Air	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	V
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Air	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	V
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Air	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	V
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Air	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	V
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	UV
6 NPS	8 NPS	17.6 in²	[R] 4.735 in	1.276 in	15-250 psi	Air	UV
6 NPS	8 NPS	17.6 in²	[R] 4.735 in	1.276 in	15-250 psi	Steam	V
6 NPS	8 NPS	17.6 in²	[R] 4.735 in	1.276 in	15-250 psi	Steam	UV
	_ Kunkle 910	0 to 919 (S	ect. VIII Liquid), 9	28 NBCert	# 36111		
Design Name	^{e.} and 929 (S	Sect. I Liqui	d)	NDCent	# 30111		
Manufacturer/A	^{e.} and 929 (S ssembler	Sect. I Liqui	d) Designato	prs	+ JOITI	piration Date	
Design Name Manufacturer/A Assembler	s. and 929 (S ssembler	Sect. I Liqui	d) Designato UV	ors	# 30111 Ex 06	piration Date /20/2024	
Design Name Manufacturer/A Assembler Design Type	s. and 929 (S ssembler	Sect. I Liqui	d) Designato UV	ors	# 30111 Ex 06	piration Date	
Manufacturer/A Assembler Design Type [Relief Valve] K Capacity Tests: A Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Chara Flow Area Confit Designed by: Er	unkle 910 to 919 (Se ssembler unkle 910 to 919 (Se Sec. UV, V at unknow dishing Relieving Cap 0.710 Unitless dater/Liquid; Certified: acteristics: Fixed guration: Nozzle/Full nerson Automation S	Sect. I Liqui ct. VIII Liquid), yn lab on May i bacity: Flow Ca Liquid Stream Lift olutions Final (d) Designato UV 928 and 929 (Sect. I L 8, 1985 apacity, K Control US LP {AGC}	iquid)	# 30111 E> 06	piration Date	
Manufacturer/A Assembler Design Type [Relief Valve] K Capacity Tests: : Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er	unkle 910 to 919 (Se sec. UV, V at unknow bishing Relieving Cap 0.710 Unitless 'ater/Liquid; Certified: 'afinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size	Sect. I Liqui ct. VIII Liquid), on lab on May i bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area	d) Designato UV 928 and 929 (Sect. I L 8, 1985 spacity, K Control US LP {AGC} Orifice [designator] dia.	iquid)	Set Pressure Range	vpiration Date	Designator
Manufacturer/A Assembler Design Type [Relief Valve] K Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confit Designed by: Er Inlet Size 0.5-1 NPS	unkle 910 to 919 (Se sec. UV, V at unknow olishing Relieving Cap 0.710 Unitless 'ater/Liquid; Certified: ofinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .75 , 1 NPS	Sect. I Liqui ct. VIII Liquid), yn lab on May s bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area 0.1213 in ²	d) Designato UV 928 and 929 (Sect. I L 8, 1985 spacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in	iquid) Lift 0.126 in	Set Pressure Range 15-1400 psi	Media Water	Designator UV, V
Manufacturer/A Assembler Design Type [Relief Valve] KI Capacity Tests: 4 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confit Designed by: Er Inlet Size 0.5-1 NPS 0.75-1.25 NPS	unkle 910 to 919 (Se Sec. UV, V at unknow Jishing Relieving Cap 0.710 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .75 , 1 NPS 1.25 NPS	Sect. I Liqui ct. VIII Liquid), yn lab on May a bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area 0.1213 in ² 0.2157 in ²	d) Designato UV 928 and 929 (Sect. I L 8, 1985 spacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in [E] 0.524 in	Lift 0.126 in 0.168 in	* 30111 E> 06 Set Pressure Range 15-1400 psi 15-1000 psi	Media Water Water	Designator UV, V UV, V
Manufacturer/A Assembler Design Type [Relief Valve] K Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confit Designed by: Er Inlet Size 0.5-1 NPS 0.75-1.25 NPS 1-1.5 NPS	unkle 910 to 919 (Se Sec. UV, V at unknow Vishing Relieving Cap 0.710 Unitless ater/Liquid; Certified: ater/Liquid; Certified: ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .75 , 1 NPS 1.25 NPS 1.5 NPS	Sect. I Liqui ct. VIII Liquid), vn lab on May a bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area 0.1213 in ² 0.2157 in ² 0.3369 in ²	d) Designato UV 928 and 929 (Sect. I L 8, 1985 spacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in [E] 0.524 in [F] 0.655 in	iquid) Lift 0.126 in 0.168 in 0.21 in	F 30111 E> 06 Set Pressure 06 15-1400 psi 15-1000 psi 15-700 psi 15-700 psi	Media Water Water	Designator UV, V UV, V UV, V
Manufacturer/A Assembler Design Type [Relief Valve] K Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confin Designed by: Er Inlet Size 0.5-1 NPS 0.75-1.25 NPS 1-1.5 NPS 1.25-2 NPS	And 929 (S and 929 (S assembler aunkle 910 to 919 (Se Sec. UV, V at unknow bishing Relieving Car 0.710 Unitless ater/Liquid; Certified: afinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .75 , 1 NPS 1.25 NPS 1.5 NPS 2 NPS	Sect. I Liqui ct. VIII Liquid), vn lab on May a bacity: Flow Ca Liquid Stream Lift olutions Final O Flow Area 0.1213 in ² 0.2157 in ² 0.3369 in ²	d) Designato UV 928 and 929 (Sect. I L 8, 1985 spacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in [E] 0.524 in [F] 0.655 in [G] 0.839 in	Lift 0.126 in 0.268 in	Source Example 06 06 Set Pressure 06 15-1400 psi 1 15-1000 psi 1 15-700 psi 1 15-600 psi 1	Apiration Date /20/2024 /20/20 /2	Designator UV, V
Manufacturer/A Assembler Design Type [Relief Valve] K Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confit Designed by: Er Inlet Size 0.5-1 NPS 0.75-1.25 NPS 1.25-2 NPS 1.5-2 NPS	and 929 (S assembler unkle 910 to 919 (Se Sec. UV, V at unknow dishing Relieving Cap 0.710 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .75 , 1 NPS 1.25 NPS 1.5 NPS 2 NPS 2.5 NPS	Sect. I Liqui ct. VIII Liquid), yn lab on May i bacity: Flow Ca Liquid Stream Lift olutions Final O Flow Area 0.1213 in ² 0.2157 in ² 0.3369 in ² 0.553 in ² 0.864 in ²	d) Designato UV 928 and 929 (Sect. I L 8, 1985 spacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in [E] 0.524 in [F] 0.655 in [G] 0.839 in [H] 1.049 in	Lift 0.126 in 0.168 in 0.21 in 0.268 in 0.336 in	Soft Pressure Range E> 15-1400 psi 1 15-700 psi 1 15-600 psi 1 15-500 psi 1	Media Water Water Water Water Water Water	Designator UV, V
Manufacturer/A Assembler Design Type [Relief Valve] K Capacity Tests: A Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Chara Flow Area Confit Designed by: Er Inlet Size 0.5-1 NPS 0.75-1.25 NPS 1.25-2 NPS 1.5-2 NPS 2-2.5 NPS	And 929 (Seasembler and 929 (Seasembler backgroup of the sease of the	Sect. I Liquid ct. VIII Liquid), vn lab on May 3 bacity: Flow Ca Liquid Stream Lift olutions Final O Flow Area 0.1213 in ² 0.2157 in ² 0.3369 in ² 0.553 in ² 0.864 in ² 1.415 in ²	d) Designato UV 928 and 929 (Sect. 1 L 8, 1985 spacity, K Control US LP {AGC} 0rifice [designator] dia. [D] 0.393 in [E] 0.524 in [F] 0.655 in [G] 0.839 in [H] 1.049 in [J] 1.342 in	Lift 0.126 in 0.21 in 0.268 in 0.336 in 0.429 in	Set Pressure C 15-1400 psi 1 15-700 psi 1 15-600 psi 1 15-500 psi 1	Media Water Water Water Water Water Water Water Water Water Water	Designator UV, V UV

Aquatrol, Incorporated (AQT)

Nameplate Abbreviation: Aquatrol

Elburn, IL 60119United States

This Company Manufactures or Assembles:

Design Name:	120, 121, 1	25, 126		NBCert	4 02068	8	
Manufacturer/Ass	embler		Designate	ors	E	Expiration Date	
Manufacturer			UV			11/26/2024	
Design Type							
[Safety Relief Valve Capacity Tests: Sec Method of Establish Certified Value: 1.0 Media - Test: Air/G Set Pressure Defini Blowdown Characte Flow Area Configur Designed by: Aquat	e] 120, 121, 125, 1 c. UV at National B ning Relieving Cap 37 SCFM/PSIA; (a as; Certified: Air, G ition: Pop eristics: Fixed ation: Curtain Area trol, Incorporated {	26 oard Testing La acity: Flow Cap Iternate mediu Sas, Steam AQT}	ab (Picaway) on Febru bacity, Slope m): 2.910 PPH/PSIA	uary 3, 1982			
Inlet Size C	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS .7	75, top NPS		0.75 in	0.045 in	15-200 psi	Air	UV
0.5-1 NPS .7	75, top NPS		0.75 in	0.045 in	15-200 psi	Steam	UV
Design Name:	130, 132, 1	33, 135		NBCert ;	# 02079	9	
Manufacturer/Ass	embler		Designato	ors	E	Expiration Date	
Manufacturer			UV		ŕ	11/26/2024	
Design Type							
[Safety Relief Valve Capacity Tests: Sec Method of Establish Certified Value: 0.4 Media - Test: Air/G Set Pressure Defini Blowdown Characte Flow Area Configur Designed by: Aquat	e] 130, 132, 133, 1 c. UV at National B hing Relieving Cap 03 SCFM/PSIA; (a as; Certified: Air, G ition: Pop eristics: Fixed ation: Curtain Area trol, Incorporated {	35 oard Testing La acity: Flow Cap Iternate mediu as, Steam AQT}	ab (Picaway) on Octol bacity, Slope m): 1.130 PPH/PSIA	ber 15, 1980			
Inlet Size C	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.25-0.5 NPS .5	5, Top NPS		0.5 in	0.024 in	15-200 psi	Air	UV
0.25-0.5 NPS .5	5, Top NPS		0.5 in	0.024 in	15-200 psi	Steam	UV
Design Name:	140-A			NBCert ;	# 0211،	4	
Manufacturer/Ass	embler		Designate	ors	E	Expiration Date	
Manufacturer			UV		(02/22/2025	
Design Type [Safety Relief Valve Capacity Tests: See Method of Establish Certified Value: 0.9 Media - Test: Air/G Set Pressure Defini Blowdown Characte	e] 140-A c. UV at National B ning Relieving Cap 24 SCFM/PSIA as; Certified: Air, G as; Pop eristics: Fixed	oard Testing La acity: Flow Cap Gas	ab on August 20, 2018 bacity, Slope	3			

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Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.25-0.5 NPS		0.0604 in²	0.281 in	0.09 in	15-450 psi	Air	UV			
Design Name	e: 140-B			NBCert #	4 02125					
Manufacturer/A	ssembler		Designato	ors	E	piration Date				
Manufacturer			UV		02	/22/2025				
Design Type										
[Safety Relief Va Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: Aq	Ive] 140-B Sec. UV at National B lishing Relieving Cap .487 SCFM/PSIA /Gas; Certified: Air, G finition: Pop loteristics: Fixed juration: Curtain Area uatrol, Incorporated {	Board Testing L acity: Flow Ca Bas AQT}	ab on August 20, 2018 pacity, Slope							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.375-0.75 NPS		0.0837 in ²	0.39 in	0.12 in	15-450 psi	Air	UV			
Design Name	e [.] 560 570			NBCert #	¥ 02080					
		_	_			_				
Manufacturer/A	ssembler		Designato	ors	E	piration Date				
Manufacturer			UV, V		01	/19/2028				
Manufacturer UV, V 01/19/2028 Design Type [Safety Valve] 560, 570 Sec. UV, V at National Board Testing Lab on November 10, 2005 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.856 Unitless Media - Test: Steam; Certified: Air, Gas, Steam UV, V 01/19/2028										
Design Type [Safety Valve] 56 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Ste Set Pressure Det Blowdown Chara	60, 570 Sec. UV, V at Nationa lishing Relieving Cap 0.856 Unitless eam; Certified: Air, Ga finition: Pop icteristics: Adjustable	l Board Testing acity: Flow Ca as, Steam	g Lab on November 10 pacity, K	, 2005						
Design Type [Safety Valve] 56 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Ste Set Pressure De Blowdown Chara Flow Area Config Designed by: Aqu	60, 570 Sec. UV, V at Nationa lishing Relieving Cap 0.856 Unitless eam; Certified: Air, Ga finition: Pop Icteristics: Adjustable guration: Nozzle/Full I uatrol, Incorporated {	I Board Testing acity: Flow Ca as, Steam (Dual Ring) Lift AQT}	g Lab on November 10 pacity, K	, 2005						
Design Type [Safety Valve] 56 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Ste Set Pressure Deei Blowdown Chara Flow Area Config Designed by: Aqu	50, 570 Sec. UV, V at Nationa lishing Relieving Cap 0.856 Unitless eam; Certified: Air, Ga finition: Pop licteristics: Adjustable guration: Nozzle/Full I uatrol, Incorporated {	Il Board Testing acity: Flow Ca as, Steam (Dual Ring) Lift AQT} Flow Area	g Lab on November 10 pacity, K Orifice [designator] dia.	, 2005 Lift	Set Pressure Range	Media	Designator			
Design Type [Safety Valve] 56 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Ste Set Pressure Det Blowdown Chara Flow Area Config Designed by: Aqu Inlet Size 0.5-0.75 NPS	50, 570 Sec. UV, V at Nationa lishing Relieving Cap 0.856 Unitless eam; Certified: Air, Ga finition: Pop locteristics: Adjustable juration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS	Il Board Testing acity: Flow Ca as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ²	g Lab on November 10 pacity, K Orifice [designator] dia. [D] 0.4 in	, 2005 Lift 0.1 in	Set Pressure Range 15-300 psi	Media Air	Designator			
Design Type [Safety Valve] 56 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Sta Set Pressure Designed Value: O Blowdown Chara Flow Area Config Designed by: Aqu Inlet Size 0.5-0.75 NPS 0.5-0.75 NPS	60, 570 Sec. UV, V at Nationa lishing Relieving Cap 0.856 Unitless eam; Certified: Air, Ga finition: Pop acteristics: Adjustable guration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS	Il Board Testing acity: Flow Ca as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ²	g Lab on November 10 pacity, K Orifice [designator] dia. [D] 0.4 in [D] 0.4 in	, 2005 Lift 0.1 in 0.1 in	Set Pressure Range 15-300 psi 15-300 psi	Media Air Steam	Designator UV UV, V			
Design Type [Safety Valve] 50 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Sta Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aqu Inlet Size 0.5-0.75 NPS 0.5-0.75 NPS 0.75-1 NPS	60, 570 Sec. UV, V at Nationa lishing Relieving Cap 0.856 Unitless eam; Certified: Air, Ga finition: Pop acteristics: Adjustable guration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS 1 NPS	I Board Testing acity: Flow Ca as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ² 0.221 in ²	Crifice [designator] dia. [D] 0.4 in [D] 0.53 in	, 2005 Lift 0.1 in 0.1 in 0.132 in	Set Pressure Range 15-300 psi 15-300 psi	Media Air Steam Air	Designator UV UV, V UV, V			
Design Type [Safety Valve] 50 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Sta Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aqu Inlet Size 0.5-0.75 NPS 0.75-1 NPS 0.75-1 NPS	60, 570 Sec. UV, V at Nationa lishing Relieving Cap 9.856 Unitless eam; Certified: Air, Ga finition: Pop loteristics: Adjustable guration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS 1 NPS 1 NPS	I Board Testing acity: Flow Cal as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ² 0.221 in ²	Crifice [designator] dia. [D] 0.4 in [D] 0.4 in [E] 0.53 in [E] 0.53 in	, 2005 Lift 0.1 in 0.1 in 0.132 in 0.132 in	Set Pressure Range 15-300 psi 15-300 psi 15-300 psi 15-300 psi	Media Air Steam Air Steam	Designator UV UV, V UV, V UV, V UV, V			
Design Type [Safety Valve] 50 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Sta Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Aqu Inlet Size 0.5-0.75 NPS 0.5-0.75 NPS 0.75-1 NPS 0.75-1 NPS 1-1.25 NPS	50, 570 Sec. UV, V at Nationa lishing Relieving Cap 0.856 Unitless eam; Certified: Air, Ga finition: Pop icteristics: Adjustable juration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS 1 NPS 1 NPS 1.25 NPS	I Board Testing acity: Flow Ca as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ² 0.221 in ² 0.221 in ² 0.352 in ²	Crifice [designator] dia. [D] 0.4 in [D] 0.4 in [E] 0.53 in [E] 0.53 in [F] 0.67 in	, 2005 Lift 0.1 in 0.1 32 in 0.132 in 0.132 in 0.167 in	Set Pressure Range 15-300 psi 15-300 psi 15-300 psi 15-300 psi 15-300 psi 15-300 psi	Media Air Steam Air Steam Air	Designator UV UV, V UV, V UV UV UV			
Design Type [Safety Valve] 56 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Ste Set Pressure Desi Blowdown Chara Flow Area Config Designed by: Aqu Inlet Size 0.5-0.75 NPS 0.5-0.75 NPS 0.75-1 NPS 0.75-1 NPS 1-1.25 NPS 1-1.25 NPS	60, 570 Sec. UV, V at Nationa lishing Relieving Cap 9.856 Unitless eam; Certified: Air, Ga finition: Pop loteristics: Adjustable juration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS 1 NPS 1 NPS 1.25 NPS 1.25 NPS	I Board Testing acity: Flow Cal as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ² 0.221 in ² 0.221 in ² 0.352 in ²	g Lab on November 10 pacity, K Orifice [designator] dia. [D] 0.4 in [D] 0.4 in [E] 0.53 in [E] 0.53 in [F] 0.67 in [F] 0.67 in	, 2005 Lift 0.1 in 0.1 in 0.132 in 0.132 in 0.167 in 0.167 in	Set Pressure 15-300 psi	Media Air Steam Air Steam Air Steam	Designator UV UV, V			
Design Type [Safety Valve] 56 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Sta Set Pressure Designed Value: O Net Set Press Net Set Set Set Set Set Set Set Set Set S	50, 570 Sec. UV, V at Nationa lishing Relieving Cap).856 Unitless eam; Certified: Air, Ga finition: Pop locteristics: Adjustable juration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS 1 NPS 1 NPS 1 NPS 1.25 NPS 1.25 NPS 1.5 NPS	I Board Testing acity: Flow Cal as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ² 0.221 in ² 0.221 in ² 0.352 in ² 0.352 in ² 0.352 in ²	Qrifice [designator] dia. [D] 0.4 in [D] 0.4 in [E] 0.53 in [E] 0.53 in [E] 0.67 in [F] 0.67 in [G] 0.85 in	, 2005 Lift 0.1 in 0.1 32 in 0.132 in 0.132 in 0.167 in 0.212 in	Set Pressure Range 15-300 psi	Media Air Steam Air Steam Air Steam Air	Designator UV UV, V UV UV UV UV, V UV, V UV, V UV, V UV, V UV, V			
Design Type [Safety Valve] 50 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Sta Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aqu Designed by: Aqu 10.5-0.75 NPS 0.5-0.75 NPS 0.75-1 NPS 0.75-1 NPS 1.1.25 NPS 1.25-1.5 NPS 1.25-1.5 NPS	50, 570 Sec. UV, V at Nationa lishing Relieving Cap 0.856 Unitless eam; Certified: Air, Ga finition: Pop acteristics: Adjustable guration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS 1 NPS 1 NPS 1 NPS 1.25 NPS 1.25 NPS 1.5 NPS 1.5 NPS	I Board Testing acity: Flow Cal as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ² 0.221 in ² 0.221 in ² 0.352 in ² 0.352 in ² 0.352 in ² 0.567 in ²	yab on November 10 pacity, K Orifice [designator] dia. [D] 0.4 in [D] 0.4 in [E] 0.53 in [E] 0.53 in [F] 0.67 in [G] 0.85 in [G] 0.85 in	, 2005 Lift 0.1 in 0.1 in 0.132 in 0.132 in 0.167 in 0.167 in 0.212 in 0.212 in	Set Pressure	Media Air Steam Air Steam Air Steam Air Steam	Designator UV UV, V			
Design Type [Safety Valve] 50 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Sta Set Pressure Def Blowdown Chara Flow Area Config Designed by: Aqu Inlet Size 0.5-0.75 NPS 0.5-0.75 NPS 0.75-1 NPS 0.75-1 NPS 1-1.25 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS	50, 570 Sec. UV, V at Nationa lishing Relieving Cap 9.856 Unitless eam; Certified: Air, Ga finition: Pop loteristics: Adjustable guration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS 1 NPS 1 NPS 1 NPS 1.25 NPS 1.25 NPS 1.5 NPS 1.5 NPS 2 NPS	I Board Testing acity: Flow Cal as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ² 0.221 in ² 0.221 in ² 0.352 in ² 0.352 in ² 0.567 in ² 0.567 in ² 0.899 in ²	Lab on November 10 pacity, K Orifice [designator] dia. [D] 0.4 in [D] 0.4 in [D] 0.4 in [E] 0.53 in [E] 0.53 in [F] 0.67 in [G] 0.85 in [G] 0.85 in [G] 0.85 in [H] 1.07 in	, 2005 Lift 0.1 in 0.1 in 0.132 in 0.132 in 0.167 in 0.212 in 0.212 in 0.212 in	Set Pressure Range 15-300 psi	Media Air Steam Air Steam Air Steam Air Steam Air	Designator UV UV, V UV, V			
Design Type[Safety Valve] 56Capacity Tests: 51Method of EstablCertified Value: 0Media - Test: StaSet Pressure DeiBlowdown CharaFlow Area ConfigDesigned by: Aquitation0.5-0.75 NPS0.5-0.75 NPS0.75-1 NPS0.75-1 NPS1-1.25 NPS1-1.25 NPS1.25-1.5 NPS1.25-1.5 NPS1.5-2 NPS1.5-2 NPS	50, 570 Sec. UV, V at Nationa ishing Relieving Cap 0.856 Unitless earr; Certified: Air, Ga finition: Pop octeristics: Adjustable juration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS 1 NPS 1 NPS 1 NPS 1 NPS 1.25 NPS 1.25 NPS 1.5 NPS 2 NPS 2 NPS 2 NPS	I Board Testing acity: Flow Cal as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ² 0.221 in ² 0.221 in ² 0.352 in ² 0.352 in ² 0.567 in ² 0.567 in ² 0.899 in ²	Crifice (designator) dia. [D] 0.4 in [D] 0.4 in [E] 0.53 in [E] 0.53 in [F] 0.67 in [G] 0.85 in [G] 0.85 in [H] 1.07 in [H] 1.07 in	, 2005 Lift 0.1 in 0.1 in 0.132 in 0.132 in 0.167 in 0.212 in 0.212 in 0.212 in 0.212 in 0.267 in	Set Pressure Range 15-300 psi	Media Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV UV, V			
Design Type [Safety Valve] 56 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Sta Set Pressure Des Blowdown Chara Flow Area Config Designed by: Aqu Inlet Size 0.5-0.75 NPS 0.5-0.75 NPS 0.5-0.75 NPS 0.5-0.75 NPS 0.5-0.75 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2-2.5 NPS	50, 570 Sec. UV, V at Nationa lishing Relieving Cap 0.856 Unitless earr; Certified: Air, Ga finition: Pop acteristics: Adjustable guration: Nozzle/Full I uatrol, Incorporated { Outlet Size .75 NPS .75 NPS 1 NPS 1 NPS 1 NPS 1 NPS 1 .25 NPS 1.25 NPS 1.5 NPS 2 NPS 2 NPS 2 NPS 2.5 NPS	I Board Testing acity: Flow Cal as, Steam (Dual Ring) Lift AQT} Flow Area 0.125 in ² 0.125 in ² 0.221 in ² 0.221 in ² 0.352 in ² 0.352 in ² 0.352 in ² 0.567 in ² 0.899 in ² 0.899 in ² 1.463 in ²	Cab on November 10 pacity, K Orifice [designator] dia. [D] 0.4 in [D] 0.4 in [D] 0.4 in [E] 0.53 in [E] 0.53 in [E] 0.67 in [G] 0.85 in [G] 0.85 in [H] 1.07 in [J] 1.365 in	, 2005 Lift 0.1 in 0.1 in 0.132 in 0.132 in 0.132 in 0.167 in 0.212 in 0.212 in 0.212 in 0.217 in 0.212 in 0.267 in 0.267 in	Set Pressure 15-300 psi 15-300 psi	Media Air Steam Air Steam Air Steam Air Steam Air Steam Air	Designator UV UV, V UV, V			

Boorgin Hanne	e: 88A, 89A			NBCert	# 02002									
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date								
Manufacturer			UV		1	1/26/2024								
Design Type														
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Aq	Ive] 88A, 89A Sec. UV at National E lishing Relieving Cap 0.644 SCFM/PSIA r/Gas; Certified: Air, G finition: Pop acteristics: Fixed guration: Curtain Area uatrol, Incorporated {	Board Testing L bacity: Flow Ca Bas A AQT}	ab (Picaway) on Octo pacity, Slope	ber 15, 1980										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator							
0.5 NPS	.75 NPS		0.5 in	0.036 in	15-250 psi	Air	UV							
Design Name	e: 88B, 89B			NBCert	# 02013									
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date								
Manufacturer			UV		1	1/26/2024								
Design Type														
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Aq	Ive] 88B, 89B Sec. UV at National E lishing Relieving Cap 0.930 SCFM/PSIA r/Gas; Certified: Air, G finition: Pop acteristics: Fixed guration: Curtain Area uatrol, Incorporated {	Board Testing L acity: Flow Ca Bas A AQT}	ab (Picaway) on Octo pacity, Slope	Design Type [Safety Relief Valve] 88B, 89B Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on October 15, 1980 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.930 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator							
Inlet Size	Outlet Size 1 NPS	Flow Area	Orifice [designator] dia. 0.75 in	Lift 0.04 in	Set Pressure Range 15-250 psi	Media Air	Designator UV							
Inlet Size 0.75 NPS Design Name	Outlet Size 1 NPS e: 88C, 89C	Flow Area	Orifice [designator] dia. 0.75 in	Lift 0.04 in NBCert :	Set Pressure Range 15-250 psi # 02024	Media Air	Designator UV							
Inlet Size 0.75 NPS Design Name Manufacturer/A	Outlet Size 1 NPS e: 88C, 89C ssembler	Flow Area	Orifice [designator] dia. 0.75 in Designat	Lift 0.04 in NBCert : ors	Set Pressure Range 15-250 psi # 02024 E	Media Air	Designator UV							
Inlet Size 0.75 NPS Design Name Manufacturer/A Manufacturer	Outlet Size 1 NPS e: 88C, 89C ssembler	Flow Area	Orifice [designator] dia. 0.75 in Designat UV	Lift 0.04 in NBCert : ors	Set Pressure Range 15-250 psi # 02024 E 1	Media Air Expiration Date	Designator UV							
Inlet Size 0.75 NPS Design Name Manufacturer/A Manufacturer Design Type	Outlet Size 1 NPS e: 88C, 89C ssembler	Flow Area	Orifice [designator] dia. 0.75 in Designat UV	Lift 0.04 in NBCert : ors	Set Pressure Range 15-250 psi # 02024 E 1	Media Air	Designator UV							
Inlet Size 0.75 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Aq	Outlet Size 1 NPS 1 NPS 8: 88C, 89C ssembler NVe] 88C, 89C Sec. UV at National E lishing Relieving Cap 2.274 SCFM/PSIA r/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Curtain Area uatrol, Incorporated {	Flow Area Board Testing L Pacity: Flow Ca Gas AQT}	Orifice [designator] dia. 0.75 in Designat UV .ab (Picaway) on Octo pacity, Slope	Lift 0.04 in NBCert : ors ber 14, 1980	Set Pressure Range 15-250 psi # 02024 E 1	Media Air ixpiration Date	Designator UV							
Inlet Size 0.75 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 2 Method of Estab Certified Value: 3 Method of Estab Certified Value: 4 Method Of Est	Outlet Size 1 NPS NPS 8: 88C, 89C ssembler NVe] 88C, 89C Sec. UV at National E lishing Relieving Cap 2.274 SCFM/PSIA r/Gas; Certified: Air, O finition: Pop acteristics: Fixed guration: Curtain Area uatrol, Incorporated { Outlet Size	Flow Area Board Testing L acity: Flow Ca Bas A AQT} Flow Area	Orifice [designator] dia. 0.75 in Designat UV ab (Picaway) on Octo pacity, Slope	Lift 0.04 in NBCert : ors ber 14, 1980 Lift	Set Pressure Range 15-250 psi # 02024 E 1 1 Set Pressure Range	Media Air Expiration Date 1/26/2024	Designator UV							

	e: 88D, 89D			NBCert	# 02035		
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	;
Manufacturer			UV		1	1/26/2024	
Design Type							
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 3 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Aq	Ive] 88D, 89D Sec. UV at National E Iishing Relieving Cap 3.504 SCFM/PSIA r/Gas; Certified: Air, G finition: Pop acteristics: Fixed guration: Curtain Area juatrol, Incorporated {	Board Testing L bacity: Flow Ca Bas A A AQT}	ab (Picaway) on Octo pacity, Slope	ber 14, 1980			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25 NPS	1.5 NPS		1.25 in	0.086 in	15-250 psi	Air	UV
Design Name	e: 88E, 89E			NBCert	# 02046	j	
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	
Manufacturer			UV		1	1/26/2024	
Design Type							
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: Ai Set Pressure De	Ilve] 88E, 89E Sec. UV at National E Ilishing Relieving Cap 4.900 SCFM/PSIA r/Gas; Certified: Air, C	Board Testing L bacity: Flow Ca Gas	ab (Picaway) on Octo pacity, Slope	ber 14, 1980			
Blowdown Chara Flow Area Config Designed by: Aq	finition: Pop acteristics: Fixed guration: Curtain Area juatrol, Incorporated {	a (AQT)					
Blowdown Chara Flow Area Config Designed by: Aq	finition: Pop acteristics: Fixed guration: Curtain Area juatrol, Incorporated { Outlet Size	AQT} Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Blowdown Chara Flow Area Config Designed by: Aq Inlet Size 1.5 NPS	finition: Pop acteristics: Fixed guration: Curtain Area juatrol, Incorporated { Outlet Size 2 NPS	AQT} Flow Area	Orifice [designator] dia. 1.5 in	Lift 0.1 in	Set Pressure Range 15-250 psi	Media Air	Designator UV
Blowdown Chara Flow Area Config Designed by: Aq Inlet Size 1.5 NPS Design Name	finition: Pop acteristics: Fixed guration: Curtain Area uatrol, Incorporated { Outlet Size 2 NPS e: 88F, 89F	AQT} Flow Area	Orifice [designator] dia. 1.5 in	Lift 0.1 in NBCert :	Set Pressure Range 15-250 psi # 02057	Media Air	Designator UV
Blowdown Chara Flow Area Config Designed by: Aq Inlet Size 1.5 NPS Design Name Manufacturer/A	finition: Pop acteristics: Fixed guration: Curtain Area uatrol, Incorporated { Outlet Size 2 NPS e: 88F, 89F	AQT} Flow Area	Orifice [designator] dia. 1.5 in Designate	Lift 0.1 in NBCert :	Set Pressure Range 15-250 psi # 02057 E	Media Air xpiration Date	Designator UV
Blowdown Chara Flow Area Config Designed by: Aq Inlet Size 1.5 NPS Design Name Manufacturer/A Manufacturer	finition: Pop acteristics: Fixed guration: Curtain Area juatrol, Incorporated { Outlet Size 2 NPS e: 88F, 89F	AQT}	Orifice [designator] dia. 1.5 in Designate UV	Lift 0.1 in NBCert :	Set Pressure Range 15-250 psi # 02057 E 1 ¹	Media Air xpiration Date	Designator UV
Blowdown Chara Flow Area Config Designed by: Aq Inlet Size 1.5 NPS Design Name Manufacturer/A Manufacturer Design Type	finition: Pop acteristics: Fixed guration: Curtain Area uatrol, Incorporated { Outlet Size 2 NPS e: 88F, 89F	A AQT} Flow Area	Orifice [designator] dia. 1.5 in Designate UV	Lift 0.1 in NBCert :	Set Pressure Range 15-250 psi # 02057 E 1'	Media Air xpiration Date	Designator UV
Inlet Size I.5 NPS Inlet Size I.5 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Aquitable	finition: Pop acteristics: Fixed guration: Curtain Area juatrol, Incorporated { Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3 88F, 89F 3 88F, 89F 3 88F, 89F	A AQT} Flow Area Board Testing L bacity: Flow Ca Bas A AQT}	Orifice [designator] dia. 1.5 in Designate UV ab (Picaway) on Octo pacity, Slope	Lift 0.1 in NBCert : ors ber 14, 1981	Set Pressure Range 15-250 psi # 02057 E 1 ¹	Media Air xpiration Date	Designator UV
Inlet Size I.5 NPS Inlet Size I.5 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Aq Inlet Size	finition: Pop acteristics: Fixed guration: Curtain Area juatrol, Incorporated { Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 3 88F, 89F 3 88F	AQT} Flow Area Board Testing L bacity: Flow Ca Bas AQT} Flow Area	Orifice [designator] dia. 1.5 in Designato UV ab (Picaway) on Octo pacity, Slope	Lift 0.1 in NBCert : ors ber 14, 1981 Lift	Set Pressure Range 15-250 psi # 02057 E 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Media Air xpiration Date 1/26/2024	Designator UV

Design Nam	e: Series 74			NBCert	# 02091						
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	9				
Manufacturer			UV		0	2/11/2025					
Design Type											
[Safety Relief Valve] Series 740 Capacity Tests: Sec. UV at National Board Testing Lab on November 21, 2012 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Aquatrol, Incorporated {AQT}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	0.75, 1 NPS	0.125 in ²	[D] 0.4 in	0.105 in	15-1500 psi	Air	UV				
0.5-1 NPS	0.75, 1 NPS	0.125 in ²	[D] 0.4 in	0.105 in	15-300 psi	Steam	UV				
0.5-1.25 NPS	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-1500 psi	Air	UV				
0.5-1.25 NPS	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-300 psi	Steam	UV				
0.75-1.5 in	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-1500 psi	Air	UV				
0.75-1.5 in	1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-300 psi	Steam	UV				
1-1.5 NPS	1.5 NPS	0.353 in ²	[F] 0.67 in	0.17 in	15-300 psi	Steam	UV				
1-1.5 NPS	1.5 NPS	0.353 in ²	[F] 0.67 in	0.17 in	15-750 psi	Air	UV				
1-2 in	1.5 NPS	0.353 in ²	[F] 0.67 in	0.017 in	15-750 psi	Air	UV				
1-2 in	1.5 NPS	0.353 in ²	[F] 0.67 in	0.017 in	15-300 psi	Steam	UV				
1.25-2 NPS	2 NPS	0.554 in ²	[G] 0.84 in	0.215 in	15-300 psi	Steam	UV				
1.25-2 NPS	2 NPS	0.554 in²	[G] 0.84 in	0.215 in	15-700 psi	Air	UV				
1.5-2.5 NPS	2, 2.5 NPS	0.923 in ²	[H] 1.084 in	0.28 in	15-300 psi	Steam	UV				
1.5-2.5 NPS	2, 2.5 NPS	0.923 in ²	[H] 1.084 in	0.28 in	15-600 psi	Air	UV				
2-3 NPS	3 NPS	1.418 in ²	[J] 1.344 in	0.34 in	15-300 psi	Steam	UV				
2-3 NPS	3 NPS	1.418 in ²	[J] 1.344 in	0.34 in	15-600 psi	Air	UV				
		- //									
Design Nam	e: Series 740	D (Liquid)		NBCert	# 02103	;					
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	9				
Manufacturer			UV		0	2/11/2025					
Design Type											
[Safety Relief V Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure D Flow Area Conf Designed by: Ad	alve] Series 740 (Lic Sec. UV at National blishing Relieving Ca 0.791 Unitless Vater/Liquid; Certified efinition: First Steady iguration: Nozzle/Ful quatrol, Incorporated	uid) Board Testing I pacity: Flow Ca : Liquid Stream Lift {AQT}	_ab on November 20, ∶ apacity, K	2012							

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	0.75, 1 NPS	0.125 in ²	[D] 0.4 in	0.105 in	15-1500 psi	Water	UV

1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-1500 psi	Water	UV
1, 1.25 NPS	0.217 in ²	[E] 0.526 in	0.135 in	15-1500 psi	Water	UV
1.5 NPS	0.353 in²	[F] 0.67 in	0.17 in	15-750 psi	Water	UV
1.5 NPS	0.353 in²	[F] 0.67 in	0.017 in	15-750 psi	Water	UV
2 NPS	0.554 in²	[G] 0.84 in	0.215 in	15-700 psi	Water	UV
2, 2.5 NPS	0.923 in ²	[H] 1.084 in	0.28 in	15-600 psi	Water	UV
3 NPS	1.418 in ²	[J] 1.344 in	0.34 in	15-600 psi	Water	UV
	1, 1.25 NPS 1, 1.25 NPS 1.5 NPS 1.5 NPS 2 NPS 2, 2.5 NPS 3 NPS	1, 1.25 NPS 0.217 in² 1, 1.25 NPS 0.217 in² 1.5 NPS 0.353 in² 1.5 NPS 0.353 in² 2 NPS 0.554 in² 2, 2.5 NPS 0.923 in² 3 NPS 1.418 in²	1, 1.25 NPS0.217 in²[E] 0.526 in1, 1.25 NPS0.217 in²[E] 0.526 in1.5 NPS0.353 in²[F] 0.67 in1.5 NPS0.353 in²[F] 0.67 in2 NPS0.554 in²[G] 0.84 in2, 2.5 NPS0.923 in²[H] 1.084 in3 NPS1.418 in²[J] 1.344 in	1, 1.25 NPS0.217 in²[E] 0.526 in0.135 in1, 1.25 NPS0.217 in²[E] 0.526 in0.135 in1.5 NPS0.353 in²[F] 0.67 in0.17 in1.5 NPS0.353 in²[F] 0.67 in0.017 in2 NPS0.554 in²[G] 0.84 in0.215 in2, 2.5 NPS0.923 in²[H] 1.084 in0.28 in3 NPS1.418 in²[J] 1.344 in0.34 in	1, 1.25 NPS0.217 in²[E] 0.526 in0.135 in15-1500 psi1, 1.25 NPS0.217 in²[E] 0.526 in0.135 in15-1500 psi1.5 NPS0.353 in²[F] 0.67 in0.17 in15-750 psi1.5 NPS0.353 in²[F] 0.67 in0.017 in15-750 psi2 NPS0.554 in²[G] 0.84 in0.215 in15-700 psi2, 2.5 NPS0.923 in²[H] 1.084 in0.28 in15-600 psi3 NPS1.418 in²[J] 1.344 in0.34 in15-600 psi	1, 1.25 NPS0.217 in²[E] 0.526 in0.135 in15-1500 psiWater1, 1.25 NPS0.217 in²[E] 0.526 in0.135 in15-1500 psiWater1.5 NPS0.353 in²[F] 0.67 in0.17 in15-750 psiWater1.5 NPS0.353 in²[F] 0.67 in0.017 in15-750 psiWater2 NPS0.554 in²[G] 0.84 in0.215 in15-700 psiWater2, 2.5 NPS0.923 in²[H] 1.084 in0.28 in15-600 psiWater3 NPS1.418 in²[J] 1.344 in0.34 in15-600 psiWater

ARI - Armaturen USA, LP (TAR)

Webster, TX 77598United States

This Company Manufactures or Assembles:

Design Name: Reyco R, RB & RO (Fig. 97 ⁻	l, 973, 974) NBCert # 73	000
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	01/19/2027
Design Type		
[Safety Relief Valve] Revco R RB & RO (Fig. 971, 973, 974		

[Safety Relief Valve] Reyco R, RB & RO (Fig. 971, 973, 974) Capacity Tests: Sec. UV at National Board Testing Lab on March 19, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.860 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: ARI - Armaturen USA, LP {TAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.122 in ²	[D] 0.394 in	0.12 in	15-2900 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.122 in ²	[D] 0.394 in	0.12 in	15-6250 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.217 in ²	[E] 0.526 in	0.16 in	15-2900 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.217 in ²	[E] 0.526 in	0.16 in	15-6250 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.34 in ²	[F] 0.658 in	0.2 in	15-2900 psi	Steam	UV
1.5 NPS	2 - 3 NPS	0.34 in ²	[F] 0.658 in	0.2 in	15-6250 psi	Air	UV
1.5-2 NPS	2.5, 3 NPS	0.558 in ²	[G] 0.843 in	0.26 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.558 in ²	[G] 0.843 in	0.26 in	15-4905 psi	Air	UV
1.5-2 NPS	3 NPS	0.869 in ²	[H] 1.052 in	0.32 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.869 in ²	[H] 1.052 in	0.32 in	15-3300 psi	Air	UV
2-3 NPS	3, 4 NPS	1.427 in ²	[J] 1.348 in	0.41 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.427 in ²	[J] 1.348 in	0.41 in	15-3300 psi	Air	UV
3 NPS	4, 6 NPS	2.036 in ²	[K] 1.61 in	0.49 in	15-2900 psi	Steam	UV
3 NPS	4, 6 NPS	2.036 in ²	[K] 1.61 in	0.49 in	15-3300 psi	Air	UV
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Air	UV
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Steam	UV

4 NPS	6 NPS	3.987 in ²	[M] 2.253 in	0.69 in	15-1600 psi	Air	UV				
4 NPS	6 NPS	3.987 in ²	[M] 2.253 in	0.69 in	15-1600 psi	Steam	UV				
4 NPS	6 NPS	4.807 in ²	[N] 2.474 in	0.75 in	15-1600 psi	Air	UV				
4 NPS	6 NPS	4.807 in ²	[N] 2.474 in	0.75 in	15-1600 psi	Steam	UV				
4 NPS	6 NPS	7.07 in ²	[P] 3 in	0.92 in	15-1600 psi	Air	UV				
4 NPS	6 NPS	7.07 in ²	[P] 3 in	0.92 in	15-1600 psi	Steam	UV				
6 NPS	8 NPS	12.24 in ²	[Q] 3.948 in	1.2 in	15-925 psi	Air	UV				
6 NPS	8 NPS	12.24 in ²	[Q] 3.948 in	1.2 in	15-925 psi	Steam	UV				
6 NPS	8, 10 NPS	17.72 in ²	[R] 4.75 in	1.45 in	15-350 psi	Air	UV				
6 NPS	8, 10 NPS	17.72 in ²	[R] 4.75 in	1.45 in	15-350 psi	Steam	UV				
8 NPS	10 NPS	29.75 in ²	[T] 6.155 in	1.84 in	15-325 psi	Air	UV				
8 NPS	10 NPS	29.75 in ²	[T] 6.155 in	1.84 in	15-325 psi	Steam	UV				
Design Name	e: Reyco R, F 974) (liquio	RB, RO, RE 1)	3O (Fig. 971, 973	' NBCert #	¥ 73011						
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date					
Manufacturer			UV		11	/25/2026					
Design Type											
[Relief Valve] Reyco R, RB, RO, RBO (Fig. 971, 973, 974) (liquid) Capacity Tests: Sec. UV at National Board Testing Lab on September 27, 2001 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.724 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: ARL- Armaturen USA L P (TAR)											
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift LP {TAR}	3, 974) (liquid) ab on September 27, 2 pacity, K	2001							
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L	D (Fig. 971, 97 Board Testing L bacity: Flow Ca Liquid Stream Lift _P {TAR} Flow Area	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia.	2001 Lift	Set Pressure Range	Media	Designator				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR Inlet Size	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift _P {TAR} Flow Area 0.122 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in	2001 Lift 0.12 in	Set Pressure Range 15-6250 psi	Media Water	Designator UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR Inlet Size 1-1.5 NPS 1-1.5 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full 1 - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift _P {TAR} Flow Area 0.122 in ² 0.217 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in	2001 Lift 0.12 in 0.16 in	Set Pressure Range15-6250 psi15-6250 psi	Media Water Water	Designator UV UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR Inlet Size 1-1.5 NPS 1.5 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full R - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2 - 3 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift .P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in	2001 Lift 0.12 in 0.16 in 0.2 in	Set Pressure Range 15-6250 psi 15-6250 psi 15-6250 psi	Media Water Water Water	Designator UV UV UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR Inlet Size 1-1.5 NPS 1.5 NPS 1.5-2 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2 - 3 NPS 2.5, 3 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift .P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.558 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [G] 0.843 in	2001 Lift 0.12 in 0.16 in 0.2 in 0.26 in	Set Pressure Range 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi	Media Water Water Water Water	Designator UV UV UV UV UV UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR Inlet Size 1-1.5 NPS 1.5 NPS 1.5-2 NPS 1.5-2 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2.5, 3 NPS 3 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift .P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.558 in ² 0.869 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [G] 0.843 in [H] 1.052 in	2001 Lift 0.12 in 0.16 in 0.2 in 0.26 in 0.32 in	Set Pressure Range 15-6250 psi 15-6250 psi	Media Water Water Water Water Water	Designator UV UV UV UV UV UV UV UV UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR Inlet Size 1-1.5 NPS 1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full 1 - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2.5, 3 NPS 3 NPS 3, 4 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift .P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.558 in ² 0.869 in ² 1.427 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [F] 0.658 in [G] 0.843 in [H] 1.052 in [J] 1.348 in	2001 Lift 0.12 in 0.16 in 0.2 in 0.26 in 0.32 in 0.41 in	Set Pressure 15-6250 psi 15-3300 psi 15-3300 psi	Media Water Water Water Water Water Water	Designator UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR 1.1.5 NPS 1.5.1 NPS 1.5.2 NPS 1.5-2 NPS 2.3 NPS 3 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full R - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2.5, 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.558 in ² 0.869 in ² 1.427 in ² 2.036 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [G] 0.843 in [G] 0.843 in [H] 1.052 in [J] 1.348 in [K] 1.61 in	2001 Lift 0.12 in 0.16 in 0.2 in 0.26 in 0.32 in 0.41 in 0.49 in	Set Pressure Range 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-300 psi 15-3300 psi 15-3300 psi	Media Water Water Water Water Water Water Water	Designator UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wis Set Pressure De Blowdown Chara Flow Area Config Designed by: ARInlet Size1-1.5 NPS1-1.5 NPS1.5 NPS1.5-2 NPS1.5-2 NPS2-3 NPS3-4 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2.5, 3 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift .P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.369 in ² 1.427 in ² 2.036 in ² 3.16 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [E] 0.526 in [G] 0.843 in [G] 0.843 in [H] 1.052 in [J] 1.348 in [K] 1.61 in [L] 2.006 in	2001 Lift 0.12 in 0.16 in 0.26 in 0.26 in 0.32 in 0.41 in 0.49 in 0.61 in	Set Pressure 73-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-300 psi 15-3300 psi	Media Water Water Water Water Water Water Water Water	Designator UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: ARInlet Size1-1.5 NPS1-1.5 NPS1.5 NPS1.5-2 NPS2-3 NPS3 NPS3-4 NPS4 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full 1 - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 6 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift .P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.3558 in ² 0.869 in ² 1.427 in ² 2.036 in ² 3.16 in ² 3.987 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [G] 0.843 in [H] 1.052 in [J] 1.348 in [K] 1.61 in [L] 2.006 in [M] 2.253 in	2001 Lift 0.12 in 0.16 in 0.2 in 0.26 in 0.32 in 0.41 in 0.49 in 0.61 in 0.69 in	Set Pressure Range 15-6250 psi 15-3300 psi 15-3300 psi 15-3300 psi 15-2900 psi 15-1600 psi	Media Water Water Water Water Water Water Water Water Water	Designator UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: ARInlet Size1-1.5 NPS1-1.5 NPS1.5 NPS1.5-2 NPS2-3 NPS3 NPS3-4 NPS4 NPS4 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full 1 - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 6 NPS 6 NPS	D (Fig. 971, 973) Board Testing L bacity: Flow Ca Liquid Stream Lift P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.3558 in ² 0.869 in ² 1.427 in ² 2.036 in ² 3.16 in ² 3.987 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [G] 0.843 in [H] 1.052 in [J] 1.348 in [K] 1.61 in [K] 2.006 in [M] 2.253 in [N] 2.474 in	2001 Lift 0.12 in 0.16 in 0.2 in 0.26 in 0.32 in 0.41 in 0.41 in 0.49 in 0.61 in 0.69 in 0.75 in	Set Pressure 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-300 psi 15-3300 psi 15-3300 psi 15-2900 psi 15-1600 psi 15-1600 psi	MediaWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWater	Designator UV				
[Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: ARInlet Size1-1.5 NPS1-1.5 NPS1.5 NPS1.5-2 NPS2-3 NPS3 NPS3-4 NPS4 NPS4 NPS4 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full R - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 6 NPS 6 NPS 6 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.3558 in ² 0.869 in ² 1.427 in ² 2.036 in ² 3.16 in ² 3.987 in ² 4.807 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [G] 0.843 in [G] 0.843 in [G] 0.843 in [H] 1.052 in [J] 1.348 in [L] 2.006 in [L] 2.006 in [M] 2.253 in [N] 2.474 in [P] 3 in	2001 Lift 0.12 in 0.16 in 0.2 in 0.26 in 0.32 in 0.32 in 0.41 in 0.49 in 0.69 in 0.69 in 0.75 in 0.92 in	Set Pressure 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-3300 psi 15-3300 psi 15-3300 psi 15-2900 psi 15-1600 psi 15-1600 psi 15-1600 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV				
Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: C Media - Test: Was Set Pressure De Blowdown Chara Flow Area Config Designed by: ARInlet Size1-1.5 NPS1-1.5 NPS1.5 NPS1.5-2 NPS1.5-2 NPS3 NPS3-4 NPS4 NPS4 NPS6 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 6 NPS 6 NPS 6 NPS 8 NPS	D (Fig. 971, 973 Board Testing L bacity: Flow Ca Liquid Stream Lift .P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.217 in ² 0.34 in ² 0.369 in ² 1.427 in ² 2.036 in ² 3.16 in ² 3.987 in ² 4.807 in ² 7.07 in ² 12.24 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [E] 0.526 in [G] 0.843 in [G] 0.843 in [G] 0.843 in [H] 1.052 in [H] 1.052 in [H] 1.052 in [H] 2.253 in [L] 2.006 in [L] 2.006 in [L] 2.006 in [L] 2.474 in [P] 3 in [Q] 3.948 in	2001 Lift 0.12 in 0.16 in 0.26 in 0.26 in 0.26 in 0.32 in 0.41 in 0.49 in 0.61 in 0.69 in 0.61 in 0.75 in 0.92 in 1.2 in	Set Pressure 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-3300 psi 15-3300 psi 15-3300 psi 15-1600 psi 15-1600 psi 15-1600 psi 15-1600 psi 15-1600 psi 15-1600 psi	MediaWater	Designator UV				
Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: ARInlet Size1-1.5 NPS1-1.5 NPS1.5 NPS1.5-2 NPS1.5-2 NPS3 NPS3-4 NPS4 NPS4 NPS6 NPS6 NPS	eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 6 NPS 6 NPS 8 NPS 8, 10 NPS	C (Fig. 971, 973) Board Testing L bacity: Flow Ca Liquid Stream Lift P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.34 in ² 0.369 in ² 1.427 in ² 2.036 in ² 3.16 in ² 3.987 in ² 4.807 in ² 12.24 in ² 17.72 in ²	3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [G] 0.843 in [H] 1.052 in [J] 1.348 in [K] 1.61 in [L] 2.006 in [M] 2.253 in [N] 2.474 in [P] 3 in [Q] 3.948 in [R] 4.75 in	2001 Lift 0.12 in 0.16 in 0.26 in 0.26 in 0.32 in 0.41 in 0.49 in 0.49 in 0.61 in 0.69 in 0.69 in 0.75 in 0.92 in 1.2 in	Set Pressure 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-3300 psi 15-3300 psi 15-3300 psi 15-1600 psi 15-1600 psi 15-1600 psi 15-350 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV				

Design Nam	e: RL14 & R	LO14 (0.39 [,]	4 in. orifice)	NBCe	rt # 73202			
Manufacturer//	Assembler		Designate	ors	E	piration Da	te	
Manufacturer			UV		11	/21/2026		
Design Type								
[Safety Relief V Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure D Blowdown Char Flow Area Conf Designed by: A	alve] RL14 & RLO14 Sec. UV at National olishing Relieving Ca 1.637 SCFM/PSIA; (ir/Gas, Steam; Certifi efinition: Pop acteristics: Fixed iguration: Nozzle/Full RI - Armaturen USA,	I (0.394 in. orific Board Testing L pacity: Flow Ca alternate mediu ed: Air, Gas, St I Lift LP {TAR}	ce) .ab on September 30, .pacity, Slope .m): 4.600 PPH/PSIA eam	2014				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.122 in ²	0.394 in	0.0985 in	15-2900 psi	Steam	UV	
0.5-1 NPS	1 NPS	0.122 in ²	0.394 in	0.0985 in	15-5000 psi	Air	UV	
Design Nam	e: RL14 & R	LO14 (0.394	4 in. orifice) (Liqu	uid) NBCe	rt # 73213			
Manufacturer//	Assembler		Designate	ors	Ex	cpiration Da	te	
Manufacturer			UV		11	/21/2026		
Design Type								
[Relief Valve] F Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure D Blowdown Char Flow Area Conf Designed by: Al	RL14 & RLO14 (0.394 Sec. UV at National blishing Relieving Ca 3.021 GPM/SQ.RT. F /ater/Liquid; Certified efinition: First Steady racteristics: Fixed iguration: Nozzle/Full RI - Armaturen USA,	I in. orifice) (Liq Board Testing L pacity: Flow Ca SID : Liquid Stream I Lift LP {TAR}	uid) .ab on September 30, pacity, Flow Factor	2014				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.122 in ²	0.394 in	0.0985 in	15-5000 psi	Water	UV	
Design Nam	e: RL40, RL0 orifice), Do	O40, RL41, esign Rev. <i>I</i>	RLO41 (0.547 ir A	^{1.} NBCe	rt # 73224			
Manufacturer//	Assembler		Designate	ors	Ex	cpiration Da	te	
Manufacturer			UV		09)/29/2026		
Design Type [Safety Relief V Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure D Blowdown Char Flow Area Conf Designed by: A	alve] RL40, RLO40, Sec. UV at National blishing Relieving Ca 3.760 SCFM/PSIA; (ir/Gas, Steam; Certifi efinition: Pop racteristics: Fixed iguration: Nozzle/Full RL - Armaturen USA	RL41, RLO41 (Board Testing L pacity: Flow Ca alternate mediu ied: Air, Gas, St	0.547 in. orifice), Desi ab on March 4, 2014 pacity, Slope ım): 10.560 PPH/PSIA eam	gn Rev. A				
		LP {IAR}						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	

ARI-Arma	aturen Albert	Richter Gn	nbH & Co. KG	(ARI)			Nameplate Abbreviation: AR			
Schloss Holte-Stukenbrock, 33758Germany										
This Company Manufactures or Assembles:										
Design Nar	ne: Reyco R	R, RB & RO (I	Fig. 971, 973, 97	4) NBCe	ert # 73000					
Manufacturer/Assembler Designators Expiration Date										
Manufacturer	Manufacturer UV 06/17/2024									
Design Type										
[Safety Relief Valve] Reyco R, RB & RO (Fig. 971, 973, 974) Capacity Tests: Sec. UV at National Board Testing Lab on March 19, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.860 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: ARI - Armaturen USA, LP {TAR}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 - 3 NPS	0.122 in ²	[D] 0.394 in	0.12 in	15-2900 psi	Steam	UV			
1-1.5 NPS	2 - 3 NPS	0.122 in ²	[D] 0.394 in	0.12 in	15-6250 psi	Air	UV			
1-1.5 NPS	2 - 3 NPS	0.217 in ²	[E] 0.526 in	0.16 in	15-2900 psi	Steam	UV			
1-1.5 NPS	2 - 3 NPS	0.217 in ²	[E] 0.526 in	0.16 in	15-6250 psi	Air	UV			
1.5 NPS	2 - 3 NPS	0.34 in ²	[F] 0.658 in	0.2 in	15-2900 psi	Steam	UV			
1.5 NPS	2 - 3 NPS	0.34 in ²	[F] 0.658 in	0.2 in	15-6250 psi	Air	UV			
1.5-2 NPS	2.5, 3 NPS	0.558 in ²	[G] 0.843 in	0.26 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2.5, 3 NPS	0.558 in ²	[G] 0.843 in	0.26 in	15-4905 psi	Air	UV			
1.5-2 NPS	3 NPS	0.869 in ²	[H] 1.052 in	0.32 in	15-2900 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.869 in ²	[H] 1.052 in	0.32 in	15-3300 psi	Air	UV			
2-3 NPS	3, 4 NPS	1.427 in²	[J] 1.348 in	0.41 in	15-2900 psi	Steam	UV			
2-3 NPS	3, 4 NPS	1.427 in ²	[J] 1.348 in	0.41 in	15-3300 psi	Air	UV			
3 NPS	4, 6 NPS	2.036 in ²	[K] 1.61 in	0.49 in	15-2900 psi	Steam	UV			
3 NPS	4, 6 NPS	2.036 in ²	[K] 1.61 in	0.49 in	15-3300 psi	Air	UV			
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Air	UV			
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Steam	UV			
4 NPS	6 NPS	3.987 in ²	[M] 2.253 in	0.69 in	15-1600 psi	Air	UV			
4 NPS	6 NPS	3.987 in ²	[M] 2.253 in	0.69 in	15-1600 psi	Steam	UV			
4 NPS	6 NPS	4.807 in ²	[N] 2.474 in	0.75 in	15-1600 psi	Air	UV			
		4 807 in ²	[NI] 2 474 in	0.75 in	15, 1600 pei	Stoom				

0.92 in

0.92 in

15-1600 psi

15-1600 psi

Air

Steam

UV

UV

[P] 3 in

[P] 3 in

7.07 in²

7.07 in²

4 NPS

4 NPS

6 NPS

6 NPS

NPS	12.24 in²	[Q] 3.948 in	1.2 in	15-925 psi	Air	UV
NPS	12.24 in²	[Q] 3.948 in	1.2 in	15-925 psi	Steam	UV
, 10 NPS	17.72 in²	[R] 4.75 in	1.45 in	15-350 psi	Air	UV
, 10 NPS	17.72 in²	[R] 4.75 in	1.45 in	15-350 psi	Steam	UV
0 NPS	29.75 in²	[T] 6.155 in	1.84 in	15-325 psi	Air	UV
0 NPS	29.75 in²	[T] 6.155 in	1.84 in	15-325 psi	Steam	UV
1 1 0	NPS 10 NPS 10 NPS 10 NPS NPS NPS	NPS 12.24 in² NPS 12.24 in² 10 NPS 17.72 in² 10 NPS 29.75 in² NPS 29.75 in²	NPS 12.24 in² [Q] 3.948 in NPS 12.24 in² [Q] 3.948 in 10 NPS 17.72 in² [R] 4.75 in 10 NPS 17.72 in² [R] 4.75 in NPS 29.75 in² [T] 6.155 in NPS 29.75 in² [T] 6.155 in	NPS 12.24 in² [Q] 3.948 in 1.2 in NPS 12.24 in² [Q] 3.948 in 1.2 in 10 NPS 17.72 in² [R] 4.75 in 1.45 in 10 NPS 17.72 in² [R] 4.75 in 1.45 in NPS 29.75 in² [T] 6.155 in 1.84 in NPS 29.75 in² [T] 6.155 in 1.84 in	NPS 12.24 in ² [Q] 3.948 in 1.2 in 15-925 psi NPS 12.24 in ² [Q] 3.948 in 1.2 in 15-925 psi 10 NPS 17.72 in ² [R] 4.75 in 1.45 in 15-350 psi 10 NPS 17.72 in ² [R] 4.75 in 1.45 in 15-350 psi NPS 29.75 in ² [T] 6.155 in 1.84 in 15-325 psi NPS 29.75 in ² [T] 6.155 in 1.84 in 15-325 psi	NPS12.24 in²[Q] 3.948 in1.2 in15-925 psiAirNPS12.24 in²[Q] 3.948 in1.2 in15-925 psiSteam10 NPS17.72 in²[R] 4.75 in1.45 in15-350 psiAir10 NPS17.72 in²[R] 4.75 in1.45 in15-350 psiSteamNPS29.75 in²[T] 6.155 in1.84 in15-325 psiAirNPS29.75 in²[T] 6.155 in1.84 in15-325 psiSteam

AWC, Inc. (AWI)

Baton Rouge, LA 70809United States

This Company Manufactures or Assembles:

Expiration Date 05/26/2026
05/26/2026

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	0.75-1 NPS	0.049 in ²	[B] 0.25 in	0.08 in	20-2000 psi	Air	UV
0.5-1 NPS	1-2 NPS	0.11 in ²	[D] 0.375 in	0.12 in	20-1410 psi	Air	UV
0.75-1 NPS	1-2 NPS	0.196 in ²	[E] 0.5 in	0.175 in	20-600 psi	Air	UV
1.5 NPS	2 NPS	0.307 in ²	[F] 0.625 in	0.295 in	20-4000 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.365 in	20-3000 psi	Air	UV
1.5-2 NPS	3 NPS	0.785 in ²	[H] 1 in	0.435 in	20-2500 psi	Air	UV

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Manufacturer/Assembler
                                                        Designators
                                                                                                Expiration Date
Assembler
                                                        UV
                                                                                                03/18/2025
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Design Type

[Safety Relief Valve] 2600 & 2600S

Capacity Tests: Sec. UV at Ohio State University (Robinson Laboratory) on June 11, 1972

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.858 Unitless

Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam

Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Single Ring)

Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.172 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in²	[G] 0.844 in	0.253 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in²	[H] 1.054 in	0.316 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-2900 psi	Steam	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-5000 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-2900 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV
6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV
6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Air	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV
16 NPS	18 NPS	104 in ²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV
16 NPS	18 NPS	104 in ²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV
16 NPS	20 NPS	113.1 in ²	[X] 12 in	3.6 in	15-750 psi	Air	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Steam	UV
18 NPS	24 NPS	143.1 in ²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV

18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV			
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Air	UV			
20 NPS	24 NPS	176.7 in²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV			
Design Name: 2600L (Air & Steam) NBCert # 57260										
Manufacturer/A	ssembler		Designato	ors	E	Expiration Date				
Assembler			UV		0	3/18/2025				
Design Type										
[Safety Relief Valve] 2600L (Air & Steam) Capacity Tests: Sec. UV at Farris Engineering on March 5, 2004 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Air	UV			
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-2900 psi	Steam	UV			
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-10000 psi	Air	UV			
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-10000 psi	Air	UV			
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-7000 psi	Air	UV			
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-2900 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-6000 psi	Air	UV			
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-2900 psi	Steam	UV			
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-6000 psi	Air	UV			
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-2900 psi	Steam	UV			
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-5000 psi	Air	UV			
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-2900 psi	Steam	UV			
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-4000 psi	Air	UV			
4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.79 in	15-2900 psi	Steam	UV			
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-3000 psi	Air	UV			
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-2900 psi	Steam	UV			
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-3000 psi	Air	UV			
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Air	UV			
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Steam	UV			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Air	UV			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Steam	UV			
6 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.665 in	15-1500 psi	Air	UV			
6 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.665 in	15-1500 psi	Steam	UV			
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.125 in	15-1000 psi	Air	UV			
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8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.125 in	15-1000 psi	Steam	UV			
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.217 in	15-300 psi	Air	UV			
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV			
Design Name: 2600L (Liquids) NBCert # 57068										
Manufacturer/A	ssembler		Designato	ors	Ex	Expiration Date				
Assembler			UV		03	/18/2025				
Design Type										
[Relief Valve] 2600L (Liquids) Capacity Tests: Sec. UV, V at National Board Testing Lab (Picaway) on January 29, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.652 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Water	UV, V			
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-6000 psi	Water	UV, V			
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-5000 psi	Water	UV, V			
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.326 in	15-3600 psi	Water	UV, V			
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.407 in	15-2750 psi	Water	UV, V			
2-3 NPS	2 - 4 NPS	1.43 in ²	[J] 1.35 in	0.521 in	15-2700 psi	Water	UV, V			
3 NPS	4, 6 NPS	2.041 in ²	[K] 1.612 in	0.622 in	15-2200 psi	Water	UV, V			
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.775 in	15-1500 psi	Water	UV, V			
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.871 in	15-1100 psi	Water	UV, V			
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.957 in	15-1000 psi	Water	UV, V			
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.16 in	15-1000 psi	Water	UV, V			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.525 in	15-900 psi	Water	UV, V			
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.837 in	15-600 psi	Water	UV, V			
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.339 in	15-300 psi	Water	UV, V			
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.47 in	15-300 psi	Water	UV, V			

Design Name: 2700, 2700S, 3700, 3700S

Cert #

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	03/18/2025

[Safety Relief Valve] 2700, 2700S, 3700, 3700S Capacity Tests: Sec. UV at Farris Engineering on September 14, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Air	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-2900 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-10000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-2900 psi	Steam	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Air	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-2900 psi	Steam	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Air	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Air	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-2900 psi	Steam	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Air	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-2900 psi	Steam	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-2900 psi	Steam	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Air	UV
Design Name	e [.] 27001 370)01 (Liquid	s)	NBCert #	4 57248		
	,		- /				
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			UV		03/	/18/2025	
Design Type							
[Relief Valve] 2700L, 3700L (Liquids) Capacity Tests: Sec. UV at Farris Engineering on September 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.676 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designee hu: Foreig Engineering (TEO)							
			Orifice		Set Pressure		
Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Water	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Water	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.089 in	15-10000 psi	Water	UV

0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Water	UV	
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Water	UV	
1.5 NPS	2, 2.5 NPS	0.35 in²	[F] 0.668 in	0.167 in	15-7000 psi	Water	UV	
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Water	UV	
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Water	UV	
3 NPS	4 NPS	1.47 in²	[J] 1.368 in	0.342 in	15-3000 psi	Water	UV	
Design Name	e: 3800			NBCert	# 57024			
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date		
Assembler			UV		03	/18/2025		
Design Type								
[Pilot Operated Pressure Relief Valve] 3800 Capacity Tests: Sec. UV at TELEDYNE FARRIS ENGR on May 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.859 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Air	UV	
1-1.5 NPS	2 NPS	0.15 in²	[D] 0.437 in	0.162 in	15-1050 psi	Steam	UV	
1-1.5 NPS	2 NPS	0.225 in²	[E] 0.535 in	0.198 in	15-10000 psi	Air	UV	
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-1050 psi	Steam	UV	
1-1.5 NPS	2 NPS	0.371 in²	[F] 0.687 in	0.254 in	15-10000 psi	Air	UV	
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-1050 psi	Steam	UV	
1-2 NPS	2, 3 NPS	0.559 in²	[G] 0.844 in	0.312 in	15-1050 psi	Steam	UV	
1-2 NPS	2, 3 NPS	0.559 in²	[G] 0.844 in	0.312 in	15-7000 psi	Air	UV	
1.5-2 NPS	2, 3 NPS	0.873 in²	[H] 1.054 in	0.39 in	15-1050 psi	Steam	UV	
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Air	UV	
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-1050 psi	Steam	UV	
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Air	UV	
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-1050 psi	Steam	UV	
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Air	UV	
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-1050 psi	Steam	UV	
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Air	UV	
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-1050 psi	Steam	UV	
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Air	UV	
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-1050 psi	Steam	UV	
3-4 NPS	4, 6 NPS	4 in ²	[M] 2.257 in	0.835 in	15-4000 psi	Air	UV	
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-1050 psi	Steam	UV	
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Air	UV	
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-1050 psi	Steam	UV	

4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Air	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-1050 psi	Steam	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Air	UV
8 NPS	10 NPS	28.94 in²	[T] 6.07 in	2.246 in	15-1050 psi	Steam	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Air	UV
Design Nam	e: 3800FP			NBCert	# 57035		
Manufacturer/A	Assembler		Designate	ors	E	xpiration Date	9
Assembler			UV		03	3/18/2025	
Design Type							
Assembler UV 03/18/2025 Design Type [Pilot Operated Pressure Relief Valve] 3800FP 03/18/2025 [Pilot Operated Pressure Relief Valve] 3800FP 0 April 26, 1994 Capacity Tests: Sec. UV at Farris Engineering on April 26, 1994 Wethod of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designator] dia. Inlet Size Outlet Size Flow Area Orifice [designator] dia. Lift Set Pressure Range Media Designator 1 NPS 2, 3 NPS 0.719 in ² [A] 0.957 in 0.354 in 15-10000 psi Air UV							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2, 3 NPS	0.719 in ²	[A] 0.957 in	0.354 in	15-10000 psi	Air	UV
1 NPS	2, 3 NPS	0.719 in ²	[A] 0.957 in	0.354 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in²	[1] 1.5 in	0.555 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-7000 psi	Air	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-1050 psi	Steam	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-7000 psi	Air	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-1050 psi	Steam	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-5000 psi	Air	UV
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-1050 psi	Steam	UV
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-4000 psi	Air	UV
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-2000 psi	Air	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-1050 psi	Steam	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-2000 psi	Air	UV
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1400 psi	Air	UV
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1050 psi	Steam	UV
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Air	UV
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Steam	UV

Design Name: 3800L, PCL, PCM pilots		NBCert #	572	15
Manufacturer/Assembler	Designators			Expiration Date
Assembler	UV			03/18/2025
Design Type				
[Pilot Operated Pressure Relief Valve] 3800L, PCL, PCM pilot Capacity Tests: Sec. UV at Farris Engineering on February 4, Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.782 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition(1): Pop; (3): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift	ts 1997			

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-10000 psi	Water	UV
1.5-2 NPS	2,3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Water	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Water	UV
3 NPS	4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Water	UV
3-4 NPS	4,6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Water	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Water	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Water	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Water	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Water	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Water	UV

 Design Name:
 4200 / 4400
 NBCert # 57282

 Manufacturer/Assembler
 Designators
 Expiration Date

 Assembler
 V
 05/27/2026

 Design Type
 Safety Valve] 4200 / 4400
 Safety Valve] 4200 / 4400

 Safety Valve] 4200 / 4400
 Safety Valve] 4200 / 4400
 Safety Valve] 4200 / 4400

 Capacity Tests: Sec. UV, V at National Board Testing Lab on June 9, 2005
 Safety Valve] 4200 / 4400

 Safety Valve] 4200 / 4400
 Safety Valve] Safety Valve] Capacity: Flow Capacity, K

 Safety Valve] 4200 / 4400
 Safety Valve] 4200 / 4400

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 Safety Valve] 4200 / 4400
 Safety Valve] 4200 / 4400

 Safety Valve] 500 / 500

Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25 NPS	1.5 NPS	0.316 in ²	[F] 0.634 in	0.159 in	15-1480 psi	Steam	UV, V

1.25 NPS	1.5 NPS	0.518 in²	[G] 0.812 in	0.203 in	15-1480 psi	Steam	UV, V
1.5 NPS	2.5 NPS	0.809 in ²	[H] 1.015 in	0.254 in	15-1480 psi	Steam	UV, V
1.5 NPS	2.5 NPS	1.325 in ²	[J] 1.299 in	0.325 in	15-1480 psi	Steam	UV, V
2 NPS	3 NPS	1.897 in²	[K] 1.554 in	0.389 in	15-1480 psi	Steam	UV, V
2.5 NPS	4 NPS	2.938 in ²	[L] 1.934 in	0.484 in	15-1480 psi	Steam	UV, V
3 NPS	4 NPS	3.822 in ²	[M] 2.206 in	0.552 in	15-1480 psi	Steam	UV, V
4 NPS	6 NPS	4.471 in ²	[N] 2.386 in	0.597 in	15-1480 psi	Steam	UV, V
4 NPS	6 NPS	6.573 in²	[P] 2.893 in	0.723 in	15-1480 psi	Steam	UV, V
6 NPS	8 NPS	11.389 in²	[Q] 3.808 in	0.952 in	15-1480 psi	Steam	UV, V

Design Name:

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	05/26/2026

Design Type

[Safety Valve] 6400/6600 (previously 2500 & 4600) Capacity Tests: Sec. UV, V at Ohio State University (Robinson Laboratory) on January 28, 1972

Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless

Media - Test: Steam; Certified: Air, Gas, Steam

Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	V
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	V
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	V
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Air	UV
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Steam	V
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Steam	V
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Steam	UV
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Air	UV
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Steam	V
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Steam	UV
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Air	UV
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Steam	V

2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Steam	V
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Steam	UV
3-4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.564 in	15-2900 psi	Air	UV
3-4 NPS	6 NPS	4 in²	[M] 2.257 in	0.564 in	15-2900 psi	Steam	V
3-4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.564 in	15-2900 psi	Steam	UV
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Air	UV
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Steam	V
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Steam	V
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Steam	V
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Steam	UV
6 NPS	8 , 10 NPS	17.78 in ²	[R] 4.758 in	1.19 in	15-2000 psi	Air	UV
6 NPS	8 , 10 NPS	17.78 in ²	[R] 4.758 in	1.19 in	15-2000 psi	Steam	V
6 NPS	8 , 10 NPS	17.78 in ²	[R] 4.758 in	1.19 in	15-2000 psi	Steam	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Air	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Steam	V
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Steam	UV

AWC, Inc. (AIN)

Westlake, LA 70669United States

Design Name	e: 2600 & 26	00S		NBCert a	# 5705	57			
Manufacturer/A	ssembler		Designate	ors		Expiration Date	9		
Assembler			UV			04/02/2025			
Design Type									
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	[Safety Relief Valve] 2600 & 2600S Capacity Tests: Sec. UV at Ohio State University (Robinson Laboratory) on June 11, 1972 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Earris Engineering (TEQ)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-10000 psi	Air	UV		

1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-2900 psi	Steam	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-5000 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-2900 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV
10 NPS	14 NPS	49.4 in²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV
10 NPS	14 NPS	49.4 in²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Air	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Air	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Steam	UV
18 NPS	24 NPS	143.1 in ²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV
18 NPS	24 NPS	143.1 in ²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Air	UV
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV

Design Nam	e: 2600L (Air	& Steam)		NBCert ;	# 57260		
Manufacturer/A	ssembler		Designato	ors	E	piration Date	
Assembler			UV		04	/02/2025	
Design Type							
[Safety Relief Va Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Fa	alve] 2600L (Air & Sto Sec. UV at Farris Eng Ishing Relieving Cap 0.858 Unitless r/Gas, Steam; Certifie afinition: Pop acteristics: Fixed guration: Nozzle/Full arris Engineering {TFO	eam) gineering on M pacity: Flow Ca ed: Air, Gas, St Lift D}	arch 5, 2004 Ipacity, K eam				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-2900 psi	Steam	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-6000 psi	Air	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-2900 psi	Steam	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-5000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-2900 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Steam	UV
6 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.665 in	15-1500 psi	Air	UV
6 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.665 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.125 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.125 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.217 in	15-300 psi	Air	UV

8-10 NPS	10, 12 NPS	31.5 in²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV			
Design Nam	e: 2600L (Lic	luids)		NBCert	# 57068					
Manufacturer/A	Assembler		Designate	ors	E	xpiration Date				
Assembler			UV		04	4/02/2025				
Design Type										
[Relief Valve] 2600L (Liquids) Capacity Tests: Sec. UV, V at National Board Testing Lab (Picaway) on January 29, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.652 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Water	UV, V			
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-6000 psi	Water	UV, V			
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.206 in	15-5000 psi	Water	UV, V			
1.5-2 NPS	2.5, 3 NPS	0.559 in²	[G] 0.844 in	0.326 in	15-3600 psi	Water	UV, V			
1.5-2 NPS	3 NPS	0.873 in²	[H] 1.054 in	0.407 in	15-2750 psi	Water	UV, V			
2-3 NPS	2 - 4 NPS	1.43 in ²	[J] 1.35 in	0.521 in	15-2700 psi	Water	UV, V			
3 NPS	4, 6 NPS	2.041 in ²	[K] 1.612 in	0.622 in	15-2200 psi	Water	UV, V			
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.775 in	15-1500 psi	Water	UV, V			
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.871 in	15-1100 psi	Water	UV, V			
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.957 in	15-1000 psi	Water	UV, V			
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.16 in	15-1000 psi	Water	UV, V			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.525 in	15-900 psi	Water	UV, V			
6-8 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.837 in	15-600 psi	Water	UV, V			
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	2.339 in	15-300 psi	Water	UV, V			
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.47 in	15-300 psi	Water	UV, V			
Design Nam	e: 2700, 270	0S, 3700, 3	3700S	NBCert	# 57237					
Manufacturer/A	Assembler		Designato	ors	E	xpiration Date				
Assembler			UV		04	4/02/2025				
Design Type										
[Safety Relief Va Capacity Tests: Method of Estat Certified Value: Media - Test: Ai	Design Type [Safety Relief Valve] 2700, 2700S, 3700, 3700S Capacity Tests: Sec. UV at Farris Engineering on September 14, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas. Steam: Certified: Air. Gas. Steam									

Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Air	UV	
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-2900 psi	Steam	UV	
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Air	UV	
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-2900 psi	Steam	UV	
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-10000 psi	Air	UV	
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-2900 psi	Steam	UV	
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Air	UV	
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-2900 psi	Steam	UV	
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Air	UV	
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Air	UV	
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Air	UV	
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-2900 psi	Steam	UV	
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV	
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-2900 psi	Steam	UV	
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Air	UV	
Design Name: 2700L, 3700L (Liquids) NBCert # 57248								
Design Name	e: 2700L, 370)0L (Liquid:	s)	NBCert #	\$ 57248			
Design Name Manufacturer/A	e: 2700L, 370 ssembler	JOL (Liquid:	S) Designato	NBCert # ors	‡ 57248 Ex	piration Date	_	
Design Name Manufacturer/A Assembler	e: 2700L, 370 ssembler	JOL (Liquid:	S) Designato UV	NBCert #	# 57248 Ex 04/	piration Date /02/2025		
Design Name Manufacturer/A Assembler Design Type	e: 2700L, 370	JOL (Liquid:	S) Designato UV	NBCert #	# 57248 Ex 04/	piration Date /02/2025		
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady s acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC	JOL (Liquid jineering on Se pacity: Flow Ca Liquid Stream Lift D}	S) Designato UV eptember 20, 1994 pacity, K	NBCert #	# 57248 Ex 04/	piration Date		
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	e: 2700L, 370 ssembler 700L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady 3 acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size	JOL (Liquids pineering on Se acity: Flow Ca Liquid Stream Lift D} Flow Area	S) Designato UV eptember 20, 1994 pacity, K Orifice [designator] dia.	NBCert #	# 57248 Ex 04/ Set Pressure Range	piration Date /02/2025 Media	Designator	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS	e: 2700L, 370 ssembler 700L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS	JOL (Liquid: pineering on Se pacity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ²	S) Designato UV eptember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in	NBCert # ors Lift 0.05 in	# 57248 Ex 04/ Set Pressure Range 15-16000 psi	piration Date (02/2025 Media Water	Designator	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1.5 NPS	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady 3 acteristics: Fixed guration: Nozzle/Full rris Engineering {TFO Outlet Size .75, 1 NPS .75 - 2 NPS	JOL (Liquids gineering on Se pacity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ² 0.068 in ²	S) Designato UV eptember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in [C] 0.295 in	Lift 0.05 in 0.074 in	# 57248 Ex 04/ Set Pressure Range 15-16000 psi 15-10000 psi	piration Date 102/2025 Media Water Water	Designator UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1.5 NPS	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady 3 acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75 - 2 NPS .75, 1 NPS	JOL (Liquids gineering on Se acity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ² 0.068 in ² 0.098 in ²	S) Designato UV eptember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in [C] 0.295 in [1] 0.358 in	NBCert # ors Lift 0.05 in 0.074 in 0.089 in	# 57248 Ex 04/ Set Pressure Range 15-16000 psi 15-10000 psi 15-10000 psi	piration Date /02/2025 //////////////////////////////	Designator UV UV UV UV UV UV UV UV UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fai Inlet Size 0.5-1 NPS 0.5-1.5 NPS 0.5-2 NPS	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75 - 2 NPS .75, 1 NPS 1 - 2 NPS	JOL (Liquids ineering on Se acity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.125 in ²	S) Designato UV Peptember 20, 1994 pacity, K Crifice [designator] dia. [B] 0.22 in [C] 0.295 in [1] 0.358 in [D] 0.4 in	NBCert # ors Lift 0.05 in 0.074 in 0.089 in 0.1 in	 57248 Ex 04/ 7248 1000 psi 15-10000 psi 15-10000 psi 15-10000 psi 	piration Date /02/2025 ////////////////////////////////////	Designator UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fai 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1 NPS	e: 2700L, 370 ssembler 700L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 2 NPS .75, 1 NPS .75, 1 NPS .75, 2 NPS .15, 2 NPS	JOL (Liquid: pineering on Se pacity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.125 in ² 0.223 in ²	 Designato UV Eptember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in [C] 0.295 in [1] 0.358 in [D] 0.4 in [E] 0.533 in 	Lift 0.05 in 0.074 in 0.089 in 0.1 in 0.134 in	 57248 Ex 04/ 7248 104/ 74/ 74/<td>piration Date (02/2025 (02/2025) (02/20) (02/20) (02/20) (02/20) (02/20) (02/20) (02/2</td><td>Designator UV UV</td>	piration Date (02/2025 (02/2025) (02/20) (02/20) (02/20) (02/20) (02/20) (02/20) (02/2	Designator UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Blowdown Chara flow Area Config Designed by: Fa 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1.5 NPS	e: 2700L, 370 ssembler 700L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady 3 acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 2 NPS .75, 1 NPS 1.5, 2 NPS 1.5, 2 NPS 2, 2.5 NPS	JOL (Liquids pineering on Se pacity: Flow Ca Liquid Stream Lift D) Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.125 in ² 0.223 in ² 0.35 in ²	Designato UV eptember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in [C] 0.295 in [1] 0.358 in [D] 0.4 in [E] 0.668 in	Lift 0.05 in 0.074 in 0.089 in 0.1 in 0.134 in 0.167 in	 57248 Ex 04/ 7248 104/ 74/ 74/<td>piration Date 202/2025 Media Water Water Water Water Water Water Water Water</td><td>Designator UV UV</td>	piration Date 202/2025 Media Water Water Water Water Water Water Water Water	Designator UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1.5 NPS 1.5-2 NPS	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 2 NPS .75, 1 NPS 1 - 2 NPS 1.5, 2 NPS 2, 2.5 NPS 2, 3 NPS	DOL (Liquids ineering on Se acity: Flow Ca Liquid Stream Lift D) Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.125 in ² 0.223 in ² 0.35 in ²	Designato UV eptember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in [C] 0.295 in [1] 0.358 in [D] 0.4 in [E] 0.533 in [F] 0.668 in [G] 0.855 in	Lift 0.05 in 0.074 in 0.1 in 0.134 in 0.167 in 0.215 in	 57248 Ex 04/ 74 	piration Date O2/2025 Media Water Water Water Water Water Water Water Water Water Water	Designator UV	
Design NameManufacturer/AAssemblerDesign Type[Relief Valve] 27 Capacity Tests: S Method of Estable Certified Value: O Media - Test: Wasset Pressure De Blowdown Charas Flow Area Config Designed by: FailInlet Size0.5-1 NPS0.5-1 NPS0.5-2 NPS1 NPS1.5-2 NPS2 NPS	e: 2700L, 370 ssembler Cool, 3700L (Liquids) Sec. UV at Farris Englishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady 3 acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 2 NPS 1.5, 2 NPS 1.5, 2 NPS 2, 2.5 NPS 2, 3 NPS 3 NPS	DOL (Liquids ineering on Se acity: Flow Ca Liquid Stream Lift D) Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.223 in ² 0.35 in ² 0.573 in ² 0.898 in ²	Designato UV eptember 20, 1994 pacity, K Image: Control of the second sec	Lift 0.05 in 0.074 in 0.089 in 0.1 ai 0.134 in 0.167 in 0.215 in 0.268 in	 57248 Ex 04/ 7248 	piration Date 202/2025 Media Water Water Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV	

Design Name: 3800	NBCert # 570	24
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/02/2025
Design Type		

[Pilot Operated Pressure Relief Valve] 3800 Capacity Tests: Sec. UV at TELEDYNE FARRIS ENGR on May 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.859 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Air	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-1050 psi	Steam	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Air	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-1050 psi	Steam	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Air	UV
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-1050 psi	Steam	UV
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Air	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-1050 psi	Steam	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Air	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-1050 psi	Steam	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Air	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-1050 psi	Steam	UV

8 NPS	10 NPS	28.94 in²	[T] 6.07 in	2.246 in	15-2000 psi	Air	UV
Design Name	e: 3800FP			NBCert #	\$ 57035		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			UV		04	/02/2025	
Design Type							
[Pilot Operated Pressure Relief Valve] 3800FP Capacity Tests: Sec. UV at Farris Engineering on April 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2, 3 NPS	0.719 in²	[A] 0.957 in	0.354 in	15-10000 psi	Air	UV
1 NPS	2, 3 NPS	0.719 in ²	[A] 0.957 in	0.354 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-7000 psi	Air	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-1050 psi	Steam	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-7000 psi	Air	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-1050 psi	Steam	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-5000 psi	Air	UV
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-1050 psi	Steam	UV
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-4000 psi	Air	UV
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-2000 psi	Air	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-1050 psi	Steam	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-2000 psi	Air	UV
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1400 psi	Air	UV
10 NPS	14 NPS	72 in ²	[10] 9.575 in	3.55 in	15-1050 psi	Steam	UV
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Air	UV
12 NPS	16 NPS	109.5 in²	[12] 11.81 in	4.37 in	15-800 psi	Steam	UV

Design Name: 3800L, PCL, PCM pilot

Cert # 5

 Manufacturer/Assembler
 Designators
 Expiration Date

 Assembler
 UV
 04/02/2025

[Pilot Operated Pressure Relief Valve] 3800L, PCL, PCM pilots Capacity Tests: Sec. UV at Farris Engineering on February 4, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.782 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition(1): Pop; (3): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-10000 psi	Water	UV
1.5-2 NPS	2,3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Water	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Water	UV
3 NPS	4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Water	UV
3-4 NPS	4,6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Water	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Water	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Water	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Water	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Water	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Water	UV

AWC, Inc. (ITG)

Deer Park, TX 77536United States

Design Name: 1890, 1892, 1895, 1896		NBCert #	57013
Manufacturer/Assembler	Designators		Expiration Date
Assembler	UV		06/09/2027
Design Type [Safety Relief Valve] 1890, 1892, 1895, 1896 Capacity Tests: Sec. UV at Farris Engineering on September 1 Method of Establishing Relieving Capacity: Flow Capacity, Slo Certified Value: 4.410 PPH/PSIA; (alternate medium): 1.570 S Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}	9, 1988 pe iCFM/PSIA		

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-0.75 NPS	.75, 1 NPS	0.11 in ²	0.375 in	0.094 in	15-800 psi	Air	UV	
0.5-0.75 NPS	.75, 1 NPS	0.11 in ²	0.375 in	0.094 in	15-800 psi	Air	NV	
0.5-0.75 NPS	.75, 1 NPS	0.11 in²	0.375 in	0.094 in	15-800 psi	Steam	UV	
0.5-0.75 NPS	.75, 1 NPS	0.11 in ²	0.375 in	0.094 in	15-800 psi	Steam	NV	
Design Nam	e: 1890L, 18	92L, 1895L	., 1896L (Liquids)) NBCert	# 57192			
Manufacturer//	Assembler		Designat	ors	E	piration Date)	
Assembler			UV		06	6/09/2027		
Design Type								
[Relief Valve] 1890L, 1892L, 1895L, 1896L (Liquids) Capacity Tests: Sec. UV at unknown lab on January 14, 1993 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 2.210 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-0.75 NPS	3/4, 1 NPS	0.11 in ²	0.375 in	0.08 in	15-800 psi	Water	UV	
Design Nam	Design Name: 2600 & 2600S NBCert # 57057							
Manufacturer//	Assembler		Designate	ors	E	piration Date)	
Assembler			UV		06	6/28/2024		
Design Type								
[Safety Relief V Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure D Blowdown Char Flow Area Conf Designed by: Fa	alve] 2600 & 2600S Sec. UV at Ohio Sta blishing Relieving Ca 0.858 Unitless ir/Gas, Steam; Certifi efinition: Pop acteristics: Adjustabl iguration: Nozzle/Full arris Engineering {TF	te University (R pacity: Flow Ca ed: Air, Gas, Sf e (Single Ring) Lift O}	tobinson Laboratory) o apacity, K team	n June 11, 1972				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-10000 psi	Air	UV	
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV	
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-10000 psi	Air	UV	
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.172 in	15-10000 psi	Air	UV	
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-7000 psi	Air	UV	
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-2900 psi	Steam	UV	

1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-2900 psi	Steam	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-5000 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-2900 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Air	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV
16 NPS	18 NPS	104 in ²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV
16 NPS	18 NPS	104 in ²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Air	UV
16 NPS	20 NPS	113.1 in ²	[X] 12 in	3.6 in	15-750 psi	Steam	UV
18 NPS	24 NPS	143.1 in ²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV
18 NPS	24 NPS	143.1 in ²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Air	UV
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV
Design <u>Nam</u> e	e: 2 <u>600 Serie</u>	es R <u>estricte</u>	d lift	<u>NBCert</u> #	# <u>57406</u>		
Manufacturer/A	ssembler		Designato	ors	E	cpiration Date	

UV

Assembler

06/09/2027

[Safety Relief Valve] 2600 Series Restricted lift Capacity Tests: Sec. UV at Farris Engineering on February 10, 2017 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 in	2, 2.5, 3 in	0.15 in ²	[D] 0.437 in	0.08 in	15-10000 psi	Air	UV
1-1.5 in	2, 2.5, 3 in	0.15 in ²	[D] 0.437 in	0.08 in	15-10000 psi	Steam	UV
1-1.5 in	2, 2.5, 3 in	0.225 in ²	[E] 0.535 in	0.08 in	15-10000 psi	Air	UV
1-1.5 in	2, 2.5, 3 in	0.225 in ²	[E] 0.535 in	0.08 in	15-10000 psi	Steam	UV
1.5 in	2, 2.5, 3 in	0.371 in ²	[F] 0.687 in	0.08 in	15-10000 psi	Air	UV
1.5 in	2, 2.5, 3 in	0.371 in ²	[F] 0.687 in	0.08 in	15-10000 psi	Steam	UV
1.5-2 in	2.5, 3 in	0.559 in ²	[G] 0.844 in	0.08 in	15-7000 psi	Air	UV
1.5-2 in	2.5, 3 in	0.559 in ²	[G] 0.844 in	0.08 in	15-7000 psi	Steam	UV
1.5-2 in	3 in	0.873 in ²	[H] 1.054 in	0.095 in	15-6000 psi	Air	UV
1.5-2 in	3 in	0.873 in ²	[H] 1.054 in	0.095 in	15-6000 psi	Steam	UV
2-3 in	3. 4 in	1.43 in ²	[J] 1.35 in	0.122 in	15-6000 psi	Air	UV
2-3 in	3. 4 in	1.43 in ²	[J] 1.35 in	0.122 in	15-6000 psi	Steam	UV
3 in	4, 6 in	2.042 in ²	[K] 1.612 in	0.145 in	15-5000 psi	Air	UV
3 in	4, 6 in	2.042 in ²	[K] 1.612 in	0.145 in	15-5000 psi	Steam	UV
3-4 in	4, 6 in	3.17 in ²	[L] 2.009 in	0.181 in	15-4000 psi	Air	UV
3-4 in	4, 6 in	3.17 in ²	[L] 2.009 in	0.181 in	15-4000 psi	Steam	UV
4 in	6 in	4 in²	[M] 2.257 in	0.203 in	15-3000 psi	Air	UV
4 in	6 in	4 in²	[M] 2.257 in	0.203 in	15-3000 psi	Steam	UV
4 in	6 in	4.822 in ²	[N] 2.478 in	0.223 in	15-3000 psi	Air	UV
4 in	6 in	4.822 in ²	[N] 2.478 in	0.223 in	15-3000 psi	Steam	UV
4 in	6 in	7.087 in ²	[P] 3.004 in	0.27 in	15-2500 psi	Air	UV
4 in	6 in	7.087 in ²	[P] 3.004 in	0.27 in	15-2500 psi	Steam	UV
6 in	8 in	12.27 in ²	[Q] 3.952 in	0.356 in	15-2000 psi	Air	UV
6 in	8 in	12.27 in ²	[Q] 3.952 in	0.356 in	15-2000 psi	Steam	UV
6 in	8, 10 in	17.78 in ²	[R] 4.758 in	0.428 in	15-1500 psi	Air	UV
6 in	8, 10 in	17.78 in ²	[R] 4.758 in	0.428 in	15-1500 psi	Steam	UV
8 in	10 in	28.94 in²	[T] 6.07 in	0.546 in	15-1000 psi	Air	UV
8 in	10 in	28.94 in²	[T] 6.07 in	0.546 in	15-1000 psi	Steam	UV
8 in	10 in	31.5 in ²	[U] 6.333 in	0.57 in	15-300 psi	Air	UV
8 in	10 in	31.5 in ²	[U] 6.333 in	0.57 in	15-300 psi	Steam	UV
10 in	14 in	49.4 in ²	[V] 7.93 in	0.714 in	15-1000 psi	Air	UV
10 in	14 in	49.4 in ²	[V] 7.93 in	0.714 in	15-1000 psi	Steam	UV
12 in	16 in	63.62 in ²	[W] 9 in	0.81 in	15-1000 psi	Air	UV

12 in	16 in	63.62 in ²	[W] 9 in	0.81 in	15-1000 psi	Steam	UV
16 in	18 in	104 in ²	[W2] 11.507 in	1.036 in	15-750 psi	Air	UV
16 in	18 in	104 in²	[W2] 11.507 in	1.036 in	15-750 psi	Steam	UV
16 in	20 in	113.1 in ²	[X] 12 in	1.08 in	15-750 psi	Air	UV
16 in	20 in	113.1 in ²	[X] 12 in	1.08 in	15-750 psi	Steam	UV
18 in	24 in	143.1 in²	[Y] 13.5 in	1.215 in	15-750 psi	Air	UV
18 in	24 in	143.1 in²	[Y] 13.5 in	1.215 in	15-750 psi	Steam	UV
20 in	24 in	176.7 in ²	[Z] 15 in	1.35 in	15-750 psi	Air	UV
20 in	24 in	176.7 in ²	[Z] 15 in	1.35 in	15-750 psi	Steam	UV

Design Name: 2600L (Air & Steam)

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/28/2024

Design Type

[Safety Relief Valve] 2600L (Air & Steam) Capacity Tests: Sec. UV at Farris Engineering on March 5, 2004 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in²	[D] 0.437 in	0.131 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-2900 psi	Steam	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.206 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.206 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in²	[G] 0.844 in	0.295 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in²	[G] 0.844 in	0.295 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in²	[H] 1.054 in	0.369 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in²	[H] 1.054 in	0.369 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in²	[J] 1.35 in	0.473 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-6000 psi	Air	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-2900 psi	Steam	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-5000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-2900 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-3000 psi	Air	UV

4 NPS	6 NPS	7.087 in²	[P] 3.004 in	1.05 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Steam	UV
6 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.665 in	15-1500 psi	Air	UV
6 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.665 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	2.125 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	2.125 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in²	[U] 6.333 in	2.217 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV

Design Name:

Air & Steam) Series Restricted Lift NBC

57439

Manufacturer/Assembler	Designators	Expiration Date					
Assembler	UV	08/20/2027					
Design Type							
[Safety Relief Valve] 2600L (Air & Steam) Series Restricted Lif	t						
Capacity Tests: Sec. UV at Farris Engineering on March 6, 2018							
Method of Establishing Relieving Capacity: Flow Capacity, K							
Certified Value: 0.858 Unitless							

Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.08 in	15-10000 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.08 in	15-2900 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.08 in	15-10000 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.08 in	15-2900 psi	Steam	UV
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.08 in	15-10000 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.08 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.089 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.089 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.111 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.111 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.142 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.142 in	15-6000 psi	Air	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.169 in	15-2900 psi	Steam	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.169 in	15-5000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.211 in	15-2900 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.211 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.237 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.237 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.26 in	15-2900 psi	Steam	UV

4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.26 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.315 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.315 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.415 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.415 in	15-2000 psi	Steam	UV
6-8 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	0.5 in	15-1500 psi	Air	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	0.5 in	15-1500 psi	Steam	UV
8 NPS	10 NPS	28.94 in²	[T] 6.07 in	0.638 in	15-1000 psi	Air	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	0.638 in	15-1000 psi	Steam	UV
8 NPS	10 NPS	31.5 in ²	[U] 6.333 in	0.665 in	15-300 psi	Air	UV
8 NPS	10 NPS	31.5 in ²	[U] 6.333 in	0.665 in	15-300 psi	Steam	UV
Design Name	e: 2600L (Liq	uids)		NBCert 7	# 57068		
		,		_			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			UV		06	/28/2024	
Design Type							
Method of Estab	lishing Relieving Cap	acity: Flow Ca	pacity, K	····· , ····			
Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC	Liquid Stream Lift D}					
Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size	Liquid Stream Lift D} Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	2.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size 2 - 3 NPS	Liquid Stream Lift D} Flow Area 0.15 in ²	Orifice [designator] dia. [D] 0.437 in	Lift 0.131 in	Set Pressure Range 15-10000 psi	Media Water	Designator UV, V
Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 1-2 NPS	 0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size 2 - 3 NPS 2 - 3 NPS 	Liquid Stream Lift D} Flow Area 0.15 in ² 0.225 in ²	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in	Lift 0.131 in 0.16 in	Set Pressure Range 15-10000 psi 15-6000 psi	Media Water Water	Designator UV, V UV, V
Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 1-2 NPS 1-2 NPS 1.5-2 NPS	 0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TF(Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 	Liquid Stream Lift D} Flow Area 0.15 in ² 0.225 in ² 0.371 in ²	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in	Lift 0.131 in 0.16 in 0.206 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-5000 psi	Media Water Water Water	Designator UV, V UV, V UV, V
Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 1-2 NPS 1-2 NPS 1.5-2 NPS 1.5-2 NPS	 0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2.5, 3 NPS 	Liquid Stream Lift Flow Area 0.15 in ² 0.225 in ² 0.371 in ² 0.559 in ²	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in	Lift 0.131 in 0.16 in 0.206 in 0.326 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-5000 psi 15-3600 psi	Media Water Water Water Water	Designator UV, V UV, V UV, V UV, V
Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 1-2 NPS 1-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	 0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 	Liquid Stream Lift D Flow Area 0.15 in ² 0.225 in ² 0.371 in ² 0.559 in ²	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [H] 1.054 in	Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.407 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-5000 psi 15-3600 psi 15-3600 psi 15-2750 psi	Media Water Water Water Water Water	Designator UV, V
Inlet Size 1-2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	 0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2.5, 3 NPS 3 NPS 2 - 4 NPS 	Liquid Stream () () () () () () () () () () () () ()	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [J] 1.054 in [J] 1.35 in	Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.407 in 0.521 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-5000 psi 15-3600 psi 15-3600 psi 15-2750 psi 15-2700 psi	Media Water Water Water Water Water Water	Designator UV, V
Inlet Size 1-2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS	 D.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size 2 - 3 NPS 2 - 4 NPS 4, 6 NPS 	Liquid Stream Lift D) Flow Area 0.15 in ² 0.225 in ² 0.371 in ² 0.559 in ² 0.873 in ² 1.43 in ² 2.041 in ²	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [H] 1.054 in [J] 1.35 in [K] 1.612 in	Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.407 in 0.521 in 0.622 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-5000 psi 15-3600 psi 15-2750 psi 15-2700 psi 15-2200 psi	Media Water Water Water Water Water Water Water	Designator UV, V
Inlet Size 1-2 NPS 1.5-2 NPS	 D.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size 2 - 3 NPS 2 - 4 NPS 4, 6 NPS 4, 6 NPS 	Liquid Stream () () () () () () () () () () () () ()	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [G] 1.054 in [J] 1.35 in [J] 1.612 in [K] 1.612 in	Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.407 in 0.521 in 0.622 in 0.775 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-5000 psi 15-3600 psi 15-2750 psi 15-2700 psi 15-2200 psi 15-15000 psi	Media Water Water Water Water Water Water Water	Designator UV, V
Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: FaInlet Size1-2 NPS1-2 NPS1-2 NPS1.5-2 NPS1.5-2 NPS2-3 NPS3 NPS3-4 NPS4 NPS	 D.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFO Outlet Size 2 - 3 NPS 2 - 4 NPS 4, 6 NPS 4, 6 NPS 6 NPS 	Liquid Stream Lift D Flow Area 0.15 in ² 0.225 in ² 0.371 in ² 0.371 in ² 0.559 in ² 1.43 in ² 2.041 in ² 3.17 in ² 4 in ²	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [H] 1.054 in [J] 1.35 in [K] 1.612 in [K] 2.009 in [M] 2.257 in	Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.326 in 0.407 in 0.521 in 0.622 in 0.775 in 0.871 in	Set Pressure 15-10000 psi 15-6000 psi 15-5000 psi 15-5000 psi 15-2750 psi 15-2700 psi 15-2200 psi 15-1500 psi 15-1500 psi 15-1500 psi	MediaWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWater	Designator UV, V
Inlet Size Inlet Size I-2 NPS I.5-2 NPS	 D.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size 2 - 3 NPS 2 - 4 NPS 4, 6 NPS 4, 6 NPS 6 NPS 6 NPS 	Liquid Stream () () () () () () () () () () () () ()	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [J] 1.054 in [H] 1.054 in [L] 2.009 in [L] 2.257 in [N] 2.478 in	Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.326 in 0.407 in 0.521 in 0.622 in 0.622 in 0.775 in 0.871 in	Set Pressure 15-10000 psi 15-6000 psi 15-5000 psi 15-3600 psi 15-3600 psi 15-2750 psi 15-2700 psi 15-2700 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi	Media Water Water Water Water Water Water Water Water Water	Designator UV, V
Inlet Size Inlet Size I-2 NPS I-2 NPS I.5-2 NPS	 D.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFO Outlet Size 2 - 3 NPS 2 - 4 NPS 4 , 6 NPS 4 , 6 NPS 6 NPS 6 NPS 6 NPS 6 NPS 	Liquid Stream () () () () () () () () () () () () ()	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [L] 2.009 in [L] 2.009 in [M] 2.257 in [N] 2.478 in [P] 3.004 in	Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.326 in 0.407 in 0.521 in 0.622 in 0.622 in 0.622 in 0.775 in 0.871 in 0.957 in 1.16 in	Set Pressure 15-10000 psi 15-6000 psi 15-5000 psi 15-3600 psi 15-2750 psi 15-2700 psi 15-2200 psi 15-1500 psi 15-1000 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV, V
Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: FaInlet Size1-2 NPS1-2 NPS1-2 NPS1.5-2 NPS1.5-2 NPS2-3 NPS3-4 NPS4 NPS4 NPS6 NPS	 D.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFO Outlet Size 2 - 3 NPS 2 - 4 NPS 4 , 6 NPS 4 , 6 NPS 6 NPS 6 NPS 6 NPS 8 NPS 	Liquid Stream () () () () () () () () () () () () ()	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [J] 1.35 in [K] 1.612 in [K] 1.612 in [L] 2.009 in [N] 2.257 in [N] 2.478 in [P] 3.004 in [Q] 3.952 in	Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.326 in 0.407 in 0.521 in 0.622 in 0.622 in 0.622 in 0.775 in 0.871 in 0.957 in 1.16 in	Set Pressure 15-10000 psi 15-6000 psi 15-5000 psi 15-3600 psi 15-2750 psi 15-2700 psi 15-2200 psi 15-1000 psi	MediaWater	Designator UV, V
Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: FaInlet Size1-2 NPS1-2 NPS1-2 NPS1.5-2 NPS1.5-2 NPS2-3 NPS3 NPS3-4 NPS4 NPS4 NPS6 NPS6-8 NPS	 D.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFO Outlet Size 2 - 3 NPS 2 - 4 NPS 3 NPS 2 - 4 NPS 4, 6 NPS 6 NPS 6 NPS 6 NPS 8 NPS 8, 10 NPS 	Liquid Stream Lift D. Flow Area 0.15 in ² 0.225 in ² 0.371 in ² 0.371 in ² 0.559 in ² 1.43 in ² 1.43 in ² 3.17 in ² 4 in ² 4.822 in ² 12.27 in ² 17.78 in ²	Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [E] 0.687 in [G] 0.844 in [G] 0.844 in [J] 1.054 in [L] 2.009 in [K] 1.612 in [M] 2.257 in [N] 2.478 in [P] 3.004 in [Q] 3.952 in [R] 4.758 in	Lift 0.131 in 0.16 in 0.206 in 0.206 in 0.326 in 0.326 in 0.407 in 0.521 in 0.622 in 0.622 in 0.622 in 0.675 in 0.871 in 0.957 in 1.16 in 1.525 in 1.837 in	Set Pressure 15-10000 psi 15-6000 psi 15-5000 psi 15-5000 psi 15-2750 psi 15-2700 psi 15-2700 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1000 psi	MediaWater	Designator UV, V
Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: FaInlet Size1-2 NPS1-2 NPS1-2 NPS1.5-2 NPS1.5-2 NPS2-3 NPS3 NPS3-4 NPS4 NPS4 NPS6 NPS6-8 NPS8-10 NPS	 D.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFO Outlet Size 2 - 3 NPS 2 - 4 NPS 3 NPS 2 - 4 NPS 4, 6 NPS 4, 6 NPS 6 NPS 6 NPS 8 NPS 8, 10 NPS 10, 12 NPS 	Liquid Stream () () () () () () () () () () () () ()	Orifice [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [G] 0.844 in [J] 1.054 in [H] 1.054 in [K] 1.612 in [K] 1.612 in [L] 2.009 in [L] 2.357 in [M] 2.478 in [P] 3.004 in [Q] 3.952 in [R] 4.758 in [T] 6.07 in	Lift 0.131 in 0.16 in 0.206 in 0.206 in 0.326 in 0.326 in 0.407 in 0.521 in 0.521 in 0.622 in 0.622 in 0.775 in 0.871 in 0.957 in 1.16 in 1.525 in 1.837 in 2.339 in	Set Pressure 15-10000 psi 15-6000 psi 15-5000 psi 15-3600 psi 15-3750 psi 15-2750 psi 15-2700 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1000 psi 15-1000 psi 15-1000 psi 15-1000 psi 15-1000 psi 15-1000 psi 15-3000 psi 15-3000 psi	MediaWater	Designator UV, V UV, V

Design Name	e: 2600E (Liq	uids) Serie			4 57417			
Manufacturer/A	ssembler		Designato	ors	E>	piration Date		
Assembler			UV		06	06/09/2027		
Design Type								
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	Ive] 2600L (Liquids) Sec. UV, V at Farris E lishing Relieving Cap 0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L rrris Engineering {TFC	Series Restric Engineering on bacity: Flow Ca Liquid Stream .ift D}	ted lift January 23, 2017 pacity, K					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 in	2, 2.5, 3 in	0.15 in ²	[D] 0.437 in	0.08 in	15-10000 psi	Water	UV, V	
1-1.5 in	2, 2.5, 3 in	0.225 in ²	[E] 0.535 in	0.08 in	15-6000 psi	Water	UV, V	
1.5 in	2, 2.5, 3 in	0.371 in²	[F] 0.687 in	0.08 in	15-5000 psi	Water	UV, V	
1.5-2 in	2.5, 3 in	0.559 in ²	[G] 0.844 in	0.098 in	15-3600 psi	Water	UV, V	
1.5-2 in	3 in	0.873 in²	[H] 1.054 in	0.122 in	15-2750 psi	Water	UV, V	
2-3 in	3, 4 in	1.43 in ²	[J] 1.35 in	0.156 in	15-2700 psi	Water	UV, V	
3 in	4, 6 in	2.041 in ²	[K] 1.612 in	0.187 in	15-2200 psi	Water	UV, V	
3-4 in	4, 6 in	3.17 in ²	[L] 2.009 in	0.232 in	15-1500 psi	Water	UV, V	
4 in	6 in	4 in²	[M] 2.257 in	0.261 in	15-1100 psi	Water	UV, V	
4 in	6 in	4.822 in ²	[N] 2.478 in	0.287 in	15-1000 psi	Water	UV, V	
4 in	6 in	7.087 in ²	[P] 3.004 in	0.348 in	15-1000 psi	Water	UV, V	
6 in	8 in	12.27 in ²	[Q] 3.952 in	0.458 in	15-900 psi	Water	UV, V	
6-8 in	8, 10 in	17.78 in ²	[R] 4.758 in	0.551 in	15-600 psi	Water	UV, V	
8 in	10 in	28.94 in ²	[T] 6.07 in	0.702 in	15-300 psi	Water	UV, V	
8 in	10 in	31.5 in ²	[U] 6.333 in	0.741 in	15-300 psi	Water	UV, V	
Design Name	e: 2700, 2700	DS, 3700, 3	700S	NBCert a	# 57237			
Manufacturer/A	ssembler		Designato	ors	E>	piration Date		
Assembler			UV		06	/28/2024		
Design Type								
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	Ive] 2700, 2700S, 3 Sec. UV at Farris Eng lishing Relieving Cap 0.878 Unitless r/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TF(700, 3700S gineering on Se pacity: Flow Ca ed: Air, Gas, St Lift D}	eptember 14, 1994 pacity, K eam					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Air	UV	

0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Air	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-2900 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-10000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-2900 psi	Steam	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Air	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-2900 psi	Steam	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Air	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Air	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-2900 psi	Steam	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Air	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-2900 psi	Steam	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-2900 psi	Steam	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Air	UV

Design Name: 2700L, 3700L (Liquids

NBCert #

 Manufacturer/Assembler
 Designators
 Expiration Date

 Assembler
 UV
 06/28/2024

Design Type

[Relief Valve] 2700L, 3700L (Liquids)

Capacity Tests: Sec. UV at Farris Engineering on September 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.676 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Water	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Water	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.089 in	15-10000 psi	Water	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Water	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Water	UV
1.5 NPS	2, 2.5 NPS	0.35 in²	[F] 0.668 in	0.167 in	15-7000 psi	Water	UV
1.5-2 NPS	2., 3 NPS	0.573 in²	[G] 0.855 in	0.215 in	15-5000 psi	Water	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Water	UV
3 NPS	4 NPS	1.47 in²	[J] 1.368 in	0.342 in	15-3000 psi	Water	UV

Design Name: 3800	NBCert # 570	24
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/28/2024
Design Type		

[Pilot Operated Pressure Relief Valve] 3800 Capacity Tests: Sec. UV at TELEDYNE FARRIS ENGR on May 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.859 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Air	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-1050 psi	Steam	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Air	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-1050 psi	Steam	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Air	UV
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-1050 psi	Steam	UV
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Air	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-1050 psi	Steam	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Air	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-1050 psi	Steam	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Air	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-1050 psi	Steam	UV

8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Air	UV		
Design Name	e: 3800FP			NBCert ‡	\$ 57035				
Manufacturer/A	ssembler		Designato	ors	E	piration Date			
Assembler			UV		06	/28/2024			
Design Type									
[Pilot Operated Pressure Relief Valve] 3800FP Capacity Tests: Sec. UV at Farris Engineering on April 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1 NPS	2, 3 NPS	0.719 in²	[A] 0.957 in	0.354 in	15-10000 psi	Air	UV		
1 NPS	2, 3 NPS	0.719 in ²	[A] 0.957 in	0.354 in	15-1050 psi	Steam	UV		
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-1050 psi	Steam	UV		
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-7000 psi	Air	UV		
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-1050 psi	Steam	UV		
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-7000 psi	Air	UV		
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-1050 psi	Steam	UV		
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-5000 psi	Air	UV		
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-1050 psi	Steam	UV		
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-4000 psi	Air	UV		
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-1050 psi	Steam	UV		
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-2000 psi	Air	UV		
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-1050 psi	Steam	UV		
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-2000 psi	Air	UV		
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1400 psi	Air	UV		
10 NPS	14 NPS	72 in ²	[10] 9.575 in	3.55 in	15-1050 psi	Steam	UV		
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Air	UV		
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Steam	UV		

Design Name: 3800L, PCL, PCM pilots NBCert # 57215

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/28/2024

[Pilot Operated Pressure Relief Valve] 3800L, PCL, PCM pilots Capacity Tests: Sec. UV at Farris Engineering on February 4, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.782 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition(1): Pop; (3): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-10000 psi	Water	UV
1.5-2 NPS	2,3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Water	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Water	UV
3 NPS	4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Water	UV
3-4 NPS	4,6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Water	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Water	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Water	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Water	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Water	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Water	UV

Design Name	e: 4200 / 440	0		NBCert #	# 57282					
Manufacturer/A	ssembler		Designato	ors	E	Expiration Date				
Assembler			V		04	4/30/2025				
Design Type										
[Safety Valve] 43 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: Sto Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	Safety Valve] 4200 / 4400 Capacity Tests: Sec. UV, V at National Board Testing Lab on June 9, 2005 Vethod of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.872 Unitless Wedia - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1.25 NPS	1.5 NPS	0.316 in ²	[F] 0.634 in	0.159 in	15-1480 psi	Steam	UV, V			
1.25 NPS	1.5 NPS	0.518 in ²	[G] 0.812 in	0.203 in	15-1480 psi	Steam	UV, V			
1.5 NPS	2.5 NPS	0.809 in ²	[H] 1.015 in	0.254 in	15-1480 psi	Steam	UV, V			
1.5 NPS	2.5 NPS	1.325 in ²	[J] 1.299 in	0.325 in	15-1480 psi	Steam	UV, V			
2 NPS	3 NPS	1.897 in ²	[K] 1.554 in	0.389 in	15-1480 psi	Steam	UV, V			
2.5 NPS	4 NPS	2.938 in ²	[L] 1.934 in	0.484 in	15-1480 psi	Steam	UV, V			

3 NPS	4 NPS	3.822 in ²	[M] 2.206 in	0.552 in	15-1480 psi	Steam	UV, V			
4 NPS	6 NPS	4.471 in ²	[N] 2.386 in	0.597 in	15-1480 psi	Steam	UV, V			
4 NPS	6 NPS	6.573 in ²	[P] 2.893 in	0.723 in	15-1480 psi	Steam	UV, V			
6 NPS	8 NPS	11.389 in²	[Q] 3.808 in	0.952 in	15-1480 psi	Steam	UV, V			
Design Name	e: 6400/6600	(previously	/ 2500 & 4600)	NBCert #	\$ 57046					
Manufacturer/A	Manufacturer/Assembler Designators Expiration Date									
Assembler			UV, V		04/	30/2025				
Design Type										
Design Type [Safety Valve] 6400/6600 (previously 2500 & 4600) Capacity Tests: Sec. UV, V at Ohio State University (Robinson Laboratory) on January 28, 1972 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Air	UV			
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	V			
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV			
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Air	UV			
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	V			
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV			
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Air	UV			
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	V			
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Air	UV			
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Steam	V			
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Air	UV			
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Steam	V			
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Steam	UV			
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Air	UV			
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Steam	V			
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Steam	UV			
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Air	UV			
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Steam	V			
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Steam	UV			
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Air	UV			
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Steam	V			
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Steam	UV			
3-4 NPS	6 NPS	4 in²	[M] 2.257 in	0.564 in	15-2900 psi	Air	UV			

3-4 NPS	6 NPS	4 in²	[M] 2.257 in	0.564 in	15-2900 psi	Steam	V
3-4 NPS	6 NPS	4 in²	[M] 2.257 in	0.564 in	15-2900 psi	Steam	UV
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Air	UV
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Steam	V
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Steam	V
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Steam	V
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Steam	UV
6 NPS	8 , 10 NPS	17.78 in²	[R] 4.758 in	1.19 in	15-2000 psi	Air	UV
6 NPS	8 , 10 NPS	17.78 in²	[R] 4.758 in	1.19 in	15-2000 psi	Steam	V
6 NPS	8 , 10 NPS	17.78 in²	[R] 4.758 in	1.19 in	15-2000 psi	Steam	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Air	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Steam	V
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Steam	UV
6 NPS 6 NPS 6 NPS 6 NPS 8 NPS 8 NPS 8 NPS	8 , 10 NPS 8 , 10 NPS 8 , 10 NPS 8 , 10 NPS 10 NPS 10 NPS 10 NPS	12.27 in ² 17.78 in ² 17.78 in ² 17.78 in ² 28.94 in ² 28.94 in ² 28.94 in ²	[Q] 3.952 in [R] 4.758 in [R] 4.758 in [R] 4.758 in [T] 6.07 in [T] 6.07 in [T] 6.07 in	0.988 in 1.19 in 1.19 in 1.518 in 1.518 in 1.518 in	15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-1500 psi 15-1500 psi 15-1500 psi	Air Steam Steam Air Steam Steam	UV V UV UV V UV

Beijing Aerospace Petrochemical Technology & Equipment Engineering Corporation Limited (BAP)

Nameplate Abbreviation: BAPC

Beijing, 100176People's Republic of China

Design Nam	e: HT Series			NBCer	t# 12407			
Manufacturer/	Assembler		Designat	Designators			e	
Manufacturer			UV		0'	7/06/2024		
Design Type [Safety Relief Valve] HT Series Capacity Tests: Sec. UV at National Board Testing Lab on August 20, 2010 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.872 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Beijing Aerospace Petrochemical Technology & Equipment Engineering Corporation Limited (BAP)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2, 3 NPS	0.134 in²	[D] 0.4134 in	0.124 in	15-6000 psi	Air	UV	
1-1.5 NPS	2, 3 NPS	0.239 in ²	[E] 0.5512 in	0.165 in	15-6000 psi	Air	UV	
1.5 NPS	2, 3 NPS	0.352 in ²	[F] 0.6693 in	0.201 in	15-5000 psi	Air	UV	
1.5-2 NPS	2.5, 3 NPS	0.589 in ²	[G] 0.866 in	0.26 in	15-3705 psi	Air	UV	
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.319 in	15-2750 psi	Air	UV	

2-3 NPS	3, 4 NPS	1.448 in ²	[J] 1.358 in	0.407 in	15-2700 psi	Air	UV		
3 NPS	4, 6 NPS	2.097 in ²	[K] 1.634 in	0.19 in	15-2220 psi	Air	UV		
3-4 NPS	4, 6 NPS	3.23 in ²	[L] 2.028 in	0.608 in	15-1500 psi	Air	UV		
4 NPS	6 NPS	4.097 in ²	[M] 2.284 in	0.685 in	15-1100 psi	Air	UV		
4 NPS	6 NPS	4.988 in ²	[N] 2.52 in	0.756 in	15-1000 psi	Air	UV		
4 NPS	6 NPS	7.22 in ²	[P] 3.032 in	0.909 in	15-1000 psi	Air	UV		
6 NPS	8 NPS	12.667 in ²	[Q] 4.016 in	1.206 in	15-600 psi	Air	UV		
6-6 NPS	8, 10 NPS	18.118 in ²	[R] 4.803 in	1.441 in	15-300 psi	Air	UV		
8-8 NPS	10 NPS	29.628 in²	[T] 6.142 in	1.843 in	15-300 psi	Air	UV		
10-10 NPS	14 NPS	43.943 in ²	[V] 7.48 in	2.244 in	15-285 psi	Air	UV		
12-12 NPS	16 NPS	61.626 in ²	[W] 8.858 in	5.658 in	15-285 psi	Air	UV		
14 NPS	18 NPS	82.291 in ²	[Y] 10.236 in	3.071 in	15-145 psi	Air	UV		
16 NPS	18 NPS	95.448 in²	[Z] 11.024 in	3.307 in	15-145 psi	Air	UV		
16 NPS	20 NPS	109.563 in ²	[Z1] 11.811 in	3.543 in	15-145 psi	Air	UV		
18 NPS	24 NPS	140.732 in ²	[AA] 13.386 in	4.016 in	15-145 psi	Air	UV		
20 NPS	24 NPS	166.66 in ²	[BB] 14.567 in	4.37 in	15-145 psi	Air	UV		
Design Name: HT Series (Liquid) NBCert # 12429									
Manufacturer/A	ssembler		Designate	ors	E	piration Date)		
Manufacturer			UV		11	/13/2026			
Design Type									
Design Type									
Design Type [Safety Relief Va Capacity Tests: 4 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confin Designed by: Be	alve] HT Series (Liqu Sec. UV at National E blishing Relieving Cap 0.751 Unitless /ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petr	id) Board Testing L bacity: Flow Ca Liquid Stream Lift ochemical Tech	.ab on May 20, 2014 ipacity, K nnology & Equipment E	Engineering Corpor	ation Limited {BAP}				
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Be	alve] HT Series (Liqu Sec. UV at National E blishing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full bijing Aerospace Petro Outlet Size	id) Board Testing L Dacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area	ab on May 20, 2014 pacity, K nnology & Equipment E Orifice [designator] dia.	Engineering Corpor.	ation Limited {BAP} Set Pressure Range	Media	Designator		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: : Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Be	alve] HT Series (Liqu Sec. UV at National B olishing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petr Outlet Size 2-3 NPS	id) Board Testing L bacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ²	ab on May 20, 2014 apacity, K nnology & Equipment E Orifice [designator] dia. [D] 0.4134 in	Engineering Corpor Lift 0.124 in	ation Limited {BAP} Set Pressure Range 15-6000 psi	Media Water	Designator		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: : Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Be	alve] HT Series (Liqu Sec. UV at National E Dishing Relieving Cap 0.751 Unitless dater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petr Outlet Size 2-3 NPS 2-3 NPS	id) Board Testing L bacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ²	ab on May 20, 2014 apacity, K nology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in	Engineering Corpor Lift 0.124 in 0.165 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi	Media Water Water	Designator UV UV		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chars Flow Area Confin Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National E olishing Relieving Cap 0.751 Unitless ater/Liquid; Certified: affinition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petr Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS	id) Board Testing L Dacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ²	ab on May 20, 2014 apacity, K noology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.6693 in	Engineering Corpor Lift 0.124 in 0.165 in 0.201 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-5000 psi	Media Water Water Water	Designator UV UV UV		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: U Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National E olishing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petr Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2.5 NPS	id) Board Testing L Dacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ² 0.589 in ²	ab on May 20, 2014 pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.6693 in [G] 0.8661 in	Engineering Corpor Lift 0.124 in 0.165 in 0.201 in 0.26 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-5000 psi 15-3705 psi	Media Water Water Water Water	Designator UV UV UV UV		
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confit Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National B olishing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2.5-3 NPS 3 NPS	id) Board Testing L Dacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ² 0.589 in ² 0.887 in ²	ab on May 20, 2014 pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.6693 in [G] 0.8661 in [H] 1.063 in	Engineering Corpor. Lift 0.124 in 0.165 in 0.201 in 0.26 in 0.319 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi	Media Water Water Water Water Water Water	Designator UV		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: : Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National B blishing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: affinition: First Steady acteristics: Fixed guration: Nozzle/Full bijing Aerospace Petr Outlet Size 2-3 NPS 2-3 NPS 2.5-3 NPS 3 NPS 3-4 NPS	id) Board Testing L Dacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ² 0.589 in ² 0.887 in ² 1.448 in ²	ab on May 20, 2014 pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.6693 in [F] 0.8661 in [G] 0.8661 in [H] 1.063 in [J] 1.358 in	Engineering Corpora Lift 0.124 in 0.165 in 0.201 in 0.26 in 0.319 in 0.407 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi 15-2700 psi	Media Water Water Water Water Water Water Water	Designator UV		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: U Media - Test: W Set Pressure De Blowdown Chara Flow Area Confin Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National B olishing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petr Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2.5-3 NPS 3.NPS 3-4 NPS 4-6 NPS	id) Board Testing L Dacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ² 0.589 in ² 0.887 in ² 1.448 in ² 2.097 in ²	ab on May 20, 2014 pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.6693 in [G] 0.8661 in [H] 1.063 in [J] 1.358 in [K] 1.634 in	Engineering Corpor Lift 0.124 in 0.165 in 0.201 in 0.26 in 0.319 in 0.407 in 0.49 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi 15-2750 psi 15-2700 psi 15-2220 psi	Media Water Water Water Water Water Water Water Water	Designator UV		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: U Media - Test: W Set Pressure De Blowdown Chars Flow Area Confi Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National B olishing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: effinition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petr Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 3-4 NPS 3-4 NPS 4-6 NPS	id) Board Testing L Dacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ² 0.589 in ² 0.887 in ² 1.448 in ² 2.097 in ² 3.23 in ²	ab on May 20, 2014 pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.6693 in [G] 0.8661 in [H] 1.063 in [J] 1.358 in [J] 1.358 in [L] 2.028 in	Engineering Corpor Lift 0.124 in 0.165 in 0.201 in 0.26 in 0.319 in 0.407 in 0.49 in 0.608 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-5000 psi 15-2750 psi 15-2750 psi 15-2750 psi 15-2220 psi 15-2220 psi 15-1500 psi	Media Water Water Water Water Water Water Water Water Water	Designator UV		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: U Media - Test: W Set Pressure De Blowdown Chara Flow Area Confit Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National B olishing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petr Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 3-4 NPS 3-4 NPS 4-6 NPS 4-6 NPS 6 NPS	id) Board Testing L Dacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ² 0.589 in ² 0.887 in ² 1.448 in ² 2.097 in ² 3.23 in ²	ab on May 20, 2014 pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [E] 0.6693 in [G] 0.8661 in [J] 1.358 in [J] 1.358 in [J] 1.358 in [J] 2.284 in	Engineering Corpor. Lift 0.124 in 0.165 in 0.201 in 0.26 in 0.319 in 0.407 in 0.407 in 0.49 in 0.608 in 0.685 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-6000 psi 15-6000 psi 15-6000 psi 15-2700 psi 15-2750 psi 15-2220 psi 15-1500 psi 15-1500 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV UV		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: 1 Media - Test: W Set Pressure De Blowdown Chars Flow Area Confit Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National B Dishing Relieving Cap 0.751 Unitless atter/Liquid; Certified: affinition: First Steady acteristics: Fixed guration: Nozzle/Full bijing Aerospace Petro Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2.5-3 NPS 3.1 NPS 3.4 NPS 4-6 NPS 4-6 NPS 6 NPS 6 NPS	id) Board Testing L Stream Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ² 0.589 in ² 0.887 in ² 1.448 in ² 2.097 in ² 3.23 in ² 4.097 in ²	ab on May 20, 2014 pacity, K Orifice [designator] dia. [D] 0.4134 in [D] 0.5512 in [F] 0.6693 in [G] 0.8661 in [G] 0.8661 in [J] 1.358 in [J] 1.358 in [J] 1.258 in [J] 2.028 in [J] 2.52 in	Engineering Corpor Lift 0.124 in 0.165 in 0.201 in 0.201 in 0.26 in 0.319 in 0.407 in 0.407 in 0.409 in 0.608 in 0.608 in 0.685 in 0.756 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi 15-2750 psi 15-2220 psi 15-2220 psi 15-1500 psi 15-1100 psi 15-1000 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV UV		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: U Media - Test: W Set Pressure De Blowdown Chara Flow Area Confir Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National B bilshing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: effinition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petro Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2.5-3 NPS 3.4 NPS 3-4 NPS 4-6 NPS 6 NPS 6 NPS 6 NPS	id) Board Testing L Dacity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ² 0.589 in ² 0.887 in ² 1.448 in ² 2.097 in ² 3.23 in ² 4.097 in ² 4.988 in ²	ab on May 20, 2014 pacity, K Corifice [designator] dia. [D] 0.4134 in [D] 0.4134 in [D] 0.5512 in [G] 0.8661 in [G] 0.8661 in [J] 1.063 in [J] 1.358 in [J] 1.358 in [J] 1.252 in [M] 2.284 in [N] 2.52 in [P] 3.032 in	Engineering Corpor Lift 0.124 in 0.165 in 0.201 in 0.26 in 0.26 in 0.319 in 0.407 in 0.49 in 0.608 in 0.685 in 0.685 in 0.756 in 0.909 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-6000 psi 15-2700 psi 15-2750 psi 15-2700 psi 15-2220 psi 15-1500 psi 15-1100 psi 15-1000 psi 15-1000 psi	Media Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV		
Design Type [Safety Relief Va Capacity Tests: : Method of Estab Certified Value: U Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Be Inlet Size	alve] HT Series (Liqu Sec. UV at National B olishing Relieving Cap 0.751 Unitless 'ater/Liquid; Certified: effinition: First Steady acteristics: Fixed guration: Nozzle/Full eijing Aerospace Petr Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 3-4 NPS 3-4 NPS 4-6 NPS 6 NPS 6 NPS 6 NPS 6 NPS 8 NPS	id) Board Testing L Stream Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.352 in ² 0.352 in ² 0.589 in ² 0.887 in ² 1.448 in ² 2.097 in ² 3.23 in ² 4.097 in ² 4.988 in ² 7.22 in ²	ab on May 20, 2014 pacity, K Corfice [designator] dia. [D] 0.4134 in [D] 0.4134 in [D] 0.5512 in [G] 0.8661 in [G] 0.8661 in [G] 0.8661 in [G] 1.063 in [G] 1.358 in [H] 1.063 in [H] 1.063 in [H] 1.063 in [H] 1.053 in [H] 1.055 in [H] 1.0	Engineering Corpor Lift 0.124 in 0.125 in 0.201 in 0.26 in 0.26 in 0.319 in 0.407 in 0.407 in 0.408 in 0.608 in 0.608 in 0.756 in 0.909 in 1.206 in	ation Limited {BAP} Set Pressure Range 15-6000 psi 15-6000 psi 15-6000 psi 15-6000 psi 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi 15-2220 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1000 psi 15-1000 psi 15-1000 psi 15-1000 psi 15-1000 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV		

Design I	Design Name: HTBP-R (12" to 78" NPS) NBCert # 12531							
	24 NPS	166.66 in ²	[BB] 14.567 in	4.37 in	15-145 psi	Water	UV	
	24 NPS	140.732 in ²	[AA] 13.386 in	4.016 in	15-145 psi	Water	UV	
	20 NPS	109.563 in ²	[Z1] 11.811 in	3.543 in	15-145 psi	Water	UV	
	18 NPS	95.448 in ²	[Z] 11.024 in	3.307 in	15-145 psi	Water	UV	
	18 NPS	82.291 in ²	[Y] 10.236 in	3.071 in	15-145 psi	Water	UV	
	16 NPS	61.626 in ²	[W] 8.858 in	2.658 in	15-500 psi	Water	UV	
	14 NPS	43.943 in ²	[V] 7.48 in	2.244 in	15-500 psi	Water	UV	
	10 NPS	29.628 in ²	[T] 6.142 in	1.843 in	15-600 psi	Water	UV	

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	09/17/2025

Design Type

[Buckling Pin Non-reclosing Device] HTBP-R (12" to 78" NPS) Capacity Tests: Sec. UD at National Board Testing Lab on March 27, 2019 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krg Certified Value: 1.850 Unitless Media - Test: Air/Gas; Certified: Compressible (Krg) Set Pressure Definition: Buckling Pressure

Flow Area Configuration: MNFA Designed by: Beijing Aerospace Petrochemical Technology & Equipment Engineering Corporation Limited {BAP}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
12 NPS		69.499 in ²			0.5-2250 psi		UD
14 NPS		87.582 in ²			0.5-2250 psi		UD
16 NPS		131.194 in ²			0.5-2250 psi		UD
18 NPS		159.002 in ²			0.5-2250 psi		UD
20 NPS		203.962 in ²			0.5-2250 psi		UD
24 NPS		300.948 in ²			0.5-2250 psi		UD
26 NPS		346.158 in ²			0.5-1440 psi		UD
28 NPS		409.581 in ²			0.5-1440 psi		UD
30 NPS		471.939 in ²			0.5-1440 psi		UD
32 NPS		538.459 in ²			0.5-1440 psi		UD
34 NPS		616.345 in ²			0.5-1440 psi		UD
36 NPS		695.963 in ²			0.5-1440 psi		UD
38 NPS		766.379 in ²			0.5-1440 psi		UD
40 NPS		838.094 in ²			0.5-1440 psi		UD
42 NPS		939.041 in²			0.5-1440 psi		UD
44 NPS		1045.61 in²			0.5-1440 psi		UD
46 NPS		1157.81 in²			0.5-1440 psi		UD
48 NPS		1249.77 in ²			0.5-1440 psi		UD
50 NPS		1368.57 in ²			0.5-720 psi		UD
52 NPS		1500.77 in ²			0.5-720 psi		UD
54 NPS		1618.93 in ²			0.5-720 psi		UD

56 NPS		1745.04 in ²			0.5-720 psi		UD	
58 NPS		1887.79 in²			0.5-720 psi		UD	
60 NPS		2001.59 in ²			0.5-720 psi		UD	
64 NPS		2276.45 in ²			0.5-720 psi		UD	
68 NPS		2559.78 in²			0.5-720 psi		UD	
72 NPS		2880.38 in ²			0.5-720 psi		UD	
78 NPS		3167.95 in ²			0.5-720 psi		UD	
Design Nam	e: HTBP-R (2" to 10" NF	PS)	NBCer	t # 12496			
Manufacturer/A	Assembler		Designat	tors	E	xpiration Date	e	
Manufacturer			UD		05	5/24/2027		
Design Type								
Design Type [Buckling Pin Non-reclosing Device] HTBP-R (2" to 10" NPS) Capacity Tests: Sec. UD at National Board Testing Lab on March 27, 2019 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krg Certified Value:12.130 Unitless Media - Test: Air/Gas; Certified: Compressible (Krg) Set Pressure Definition: Buckling Pressure Flow Area Configuration: MNFA Designed by: Beijing Aerospace Petrochemical Technology & Equipment Engineering Corporation Limited {BAP}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
10 NPS		47.584 mm²			0.5-2250 psi		UD	
2 NPS		1.002 in ²			0.5-2250 psi		UD	
2.5 NPS		1.423 in ²			0.5-2250 psi		UD	
3 NPS		2.811 in ²			0.5-2250 psi		UD	
4 NPS		5.064 in ²			0.5-2250 psi		UD	
6 NPS		15.029 in ²			0.5-2250 psi		UD	
8 NPS		28.586 in ²			0.5-2250 psi		UD	
Design Nam	e: HTGS			NBCer	t # 12485			
Manufacturer/A	Assembler		Designat	tors	E	xpiration Date	e	
Manufacturer			UV, V		30	3/01/2024		
Design Type								
Joesign Type [Safety Valve] HTGS Capacity Tests: Sec. UV, V at National Board Testing Lab on January 25, 2018 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.869 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Beijing Aerospace Petrochemical Technology & Equipment Engineering Corporation Limited {BAP}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1.5 NPS	2-3 NPS	0.352 in ²	[F] 0.669 in	0.167 in	145-6525 psi	Steam	UV, V	
1.5 NPS	2.5, 3 NPS	0.589 in ²	[G] 0.866 in	0.217 in	145-6525 psi	Steam	UV, V	
1.5 NPS	3, 4 NPS	0.887 in²	[H] 1.063 in	0.266 in	145-6525 psi	Steam	UV, V	

1.5 NPS	3, 4 NPS	1.024 in ²	[H2] 1.142 in	0.285 in	145-6525 psi	Steam	UV, V
2 NPS	3-6 NPS	1.449 in ²	[J] 1.358 in	0.34 in	145-6525 psi	Steam	UV, V
2 NPS	3-6 NPS	1.578 in ²	[J2] 1.417 in	0.354 in	145-6525 psi	Steam	UV, V
2.5-3 NPS	4, 6 NPS	2.097 in ²	[K] 1.634 in	0.408 in	145-6525 psi	Steam	UV, V
2.5-3 NPS	4, 6 NPS	2.689 in ²	[K2] 1.85 in	0.463 in	145-6525 psi	Steam	UV, V
3 NPS	4, 6 NPS	3.229 in ²	[L] 2.028 in	0.507 in	145-6525 psi	Steam	UV, V
3 NPS	4, 6 NPS	3.55 in ²	[L2] 2.126 in	0.531 in	145-6525 psi	Steam	UV, V
3 NPS	4, 6 NPS	4.095 in ²	[M] 2.283 in	0.571 in	145-6525 psi	Steam	UV, V
4 NPS	6 NPS	4.986 in ²	[N] 2.52 in	0.63 in	145-6525 psi	Steam	UV, V
4 NPS	6,8 NPS	7.218 in ²	[P] 3.031 in	0.758 in	145-6525 psi	Steam	UV, V
4 NPS	6, 8 NPS	7.598 in ²	[P2] 3.11 in	0.778 in	145-6525 psi	Steam	UV, V
6 NPS	8 NPS	12.666 in ²	[Q] 4.016 in	1.004 in	145-2000 psi	Steam	UV, V
6 NPS	8, 10 NPS	18.119 in²	[R] 4.803 in	1.201 in	145-2000 psi	Steam	UV, V
6 NPS	8, 10 NPS	19.945 in ²	[R2] 5.039 in	1.26 in	145-2000 psi	Steam	UV, V
8 NPS	10, 12 NPS	29.626 in ²	[T] 6.142 in	1.535 in	145-2000 psi	Steam	UV, V
10 NPS	14 NPS	46.766 in ²	[V] 7.717 in	1.929 in	145-500 psi	Steam	UV, V
12 NPS	16 NPS	67.229 in ²	[W] 9.252 in	2.313 in	145-500 psi	Steam	UV, V
14 NPS	18 NPS	91.395 in²	[Y] 10.787 in	2.697 in	145-500 psi	Steam	UV, V
16 NPS	18 NPS	100.974 in ²	[Z] 11.339 in	2.835 in	145-500 psi	Steam	UV, V
16 NPS	20 NPS	120.793 in ²	[ZZ] 12.402 in	3.1 in	145-500 psi	Steam	UV, V
		151 605 in ²	[AA] 13 898 in	3 474 in	145-500 psi	Steam	UV. V
18 NPS	24 NPS	101.000 11	[, : .]	0.11 1 11	1.0.000 poi		, .
18 NPS 20 NPS	24 NPS 24 NPS	187.066 in ²	[BB] 15.433 in	3.858 in	145-500 psi	Steam	UV, V
18 NPS 20 NPS	24 NPS	187.066 in ²	[BB] 15.433 in	3.858 in	145-500 psi	Steam	UV, V
18 NPS 20 NPS Design Name	24 NPS 24 NPS e: HTXD Ser	187.066 in ²	[BB] 15.433 in	3.858 in NBCert #	145-500 psi # 12441	Steam	UV, V
18 NPS 20 NPS Design Name Manufacturer/A	24 NPS 24 NPS e: HTXD Seri ssembler	187.066 in ²	[BB] 15.433 in Designato	3.858 in NBCert #	145-500 psi # 12441 Ex	Steam piration Date	UV, V
18 NPS 20 NPS Design Name Manufacturer/A Manufacturer	24 NPS 24 NPS e: HTXD Seri	187.066 in ²	[BB] 15.433 in Designato	3.858 in NBCert #	145-500 psi # 12441 Ex 05	Steam piration Date /24/2027	UV, V
18 NPS 20 NPS Design Name Manufacturer/A Manufacturer Design Type	24 NPS 24 NPS e: HTXD Seri	187.066 in ²	[BB] 15.433 in Designato	3.858 in NBCert #	145-500 psi # 12441 Ex 05	Steam piration Date /24/2027	UV, V
18 NPS 20 NPS Design Name Manufacturer/A Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Be	24 NPS 24 NPS 24 NPS E: HTXD Seri ssembler Pressure Relief Valve Sec. UV at National E lishing Relieving Cap 0.853 Unitless '/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full ijing Aerospace Petro	187.066 in ² 187.066 in ² ies ies ies add Testing L bacity: Flow Ca Gas Initial Audible I e and Fixed for Lift pochemical Tech	[BB] 15.433 in [BB] 15.433 in Designato UV 3 ab on June 30, 2015 pacity, K Discharge Mod. Pilot anology & Equipment E	3.858 in NBCert #	145-500 psi 4 12441 Ex 05. ation Limited {BAP}	Steam piration Date /24/2027	UV, V
18 NPS 20 NPS Design Name Manufacturer/A Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: (Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Be	24 NPS 24 NPS 25 UT 26 Sec 26	187.066 in ² 187.066 in ² ies j HTXD Series Board Testing L bacity: Flow Ca Bas Initial Audible I e and Fixed for Lift bochemical Tech Flow Area	[BB] 15.433 in [BB] 15.433 in Designato UV s ab on June 30, 2015 pacity, K Discharge Mod. Pilot nology & Equipment E Orifice [designator] dia.	3.858 in NBCert # ors ngineering Corpora	145-500 psi 4 12441 Ex 05. ation Limited {BAP} Set Pressure Range	Steam piration Date /24/2027 Media	Designator
18 NPS 20 NPS Design Name Manufacturer/A Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS	24 NPS 24 NPS 24 NPS E: HTXD Seri ssembler Pressure Relief Valve Sec. UV at National E lishing Relieving Cap 0.853 Unitless /Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS	187.066 in ² 187.066 in ² ies ies ies bacity: Flow Ca bacity: Flow Ca bacity	[BB] 15.433 in [BB] 15.433 in Designato UV Saab on June 30, 2015 pacity, K Discharge Mod. Pilot nnology & Equipment E Orifice [designator] dia. [D] 0.4134 in	3.858 in NBCert # Ins Ingineering Corpora Lift 0.165 in	145-500 psi 4 12441 Ex 05. ation Limited {BAP} Set Pressure Range 30-6170 psi	Steam piration Date /24/2027 Media Air	UV, V Designator
18 NPS 20 NPS Design Name Manufacturer/A Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS	24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 2 NPS 2 NPS 24 NPS	187.066 in ² 187.066 in ² ieS ieS J HTXD Series Board Testing L bacity: Flow Ca Sas Initial Audible I and Fixed for Lift bochemical Tech Flow Area 0.134 in ² 0.239 in ²	[BB] 15.433 in [BB] 15.433 in Designato UV sab on June 30, 2015 pacity, K Discharge Mod. Pilot mology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in	3.858 in NBCert # Ins Ingineering Corpora Lift 0.165 in 0.22 in	145-500 psi 4 12441 Ex 05 ation Limited {BAP} Set Pressure Range 30-6170 psi 30-6170 psi	Steam piration Date /24/2027 //24/2027 //////////////////////////////////	UV, V UV, V Designator UV UV
18 NPS 20 NPS Design Name Manufacturer/A Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - Test: Ain Set Pressure Des Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 25 Certified: Air, 0 finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS	187.066 in ² 187.066 in ² ieS ieS ieS ieS ieS ieS ieS ieS	[BB] 15.433 in [BB] 15.433 in Designato UV Sab on June 30, 2015 pacity, K Discharge Mod. Pilot mology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in	3.858 in NBCert # ors ingineering Corpora Lift 0.165 in 0.22 in 0.276 in	145-500 psi 145-500 psi # 12441 Ex 05. # 05. <	Steam piration Date /24/2027 /24/2027 Media Air Air Air Air	UV, V UV, V UV UV UV UV UV UV UV UV
18 NPS 20 NPS 20 NPS Design Name Manufacturer/A Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS	24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 2002 2002 2002 2002 2002 2002 2002 20	187.066 in ² 187.066 in ² ies J HTXD Series Board Testing L Dacity: Flow Ca Sas Initial Audible I e and Fixed for Lift Dischemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.616 in ²	[BB] 15.433 in [BB] 15.433 in Designato UV Sabon June 30, 2015 pacity, K Discharge Mod. Pilot nology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in	3.858 in NBCert # rrs Lift 0.165 in 0.22 in 0.276 in 0.355 in	Ation Limited {BAP} Set Pressure Range 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi	Steam piration Date /24/2027 Media Air Air Air Air	UV, V UV, V UV UV UV UV UV UV UV UV UV
18 NPS 20 NPS Design Name Manufacturer/A Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1-52 NPS 1.5-2 NPS	24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 25 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 2 NPS	187.066 in ² 187.066 in ²	[BB] 15.433 in [BB] 15.433 in Designato UV Sab on June 30, 2015 pacity, K Discharge Mod. Pilot Discharge [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in [H] 1.1024 in	3.858 in NBCert # Ins Ingineering Corpora Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in	145-500 psi 145-500 psi 12441 Ex 05 30-6170 psi	Steam piration Date /24/2027 Media Air Air Air Air Air Air	UV, V UV, V UV
18 NPS 20 NPS Design Name Manufacturer/A Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 24 NPS 25 20 20 20 20 20 20 20 20 20 20 20 20 20	187.066 in ² 187.066 in ² ieS ieS J HTXD Series Board Testing L bacity: Flow Ca Sas Initial Audible D and Fixed for Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.616 in ² 0.954 in ²	[BB] 15.433 in [BB] 15.433 in UV Designato UV Sab on June 30, 2015 pacity, K Discharge Mod. Pilot nology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in [H] 1.1024 in [J] 1.4173 in	3.858 in NBCert # ors Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in 0.567 in	145-500 psi 145-500 psi 12441 Ex 05 30-6170 psi	Steam piration Date /24/2027 Media Air Air Air Air Air Air Air	UV, V UV, V UV

3-4 NPS	4, 6 NPS	3.484 in ²	[L] 2.1063 in	0.843 in	30-3705 psi	Air	UV	
4 NPS	6 NPS	4.383 in ²	[M] 2.3622 in	0.945 in	30-3705 psi	Air	UV	
4 NPS	6 NPS	5.303 in ²	[N] 2.5984 in	1.04 in	30-3705 psi	Air	UV	
4 NPS	6 NPS	7.791 in ²	[P] 3.1496 in	1.26 in	30-3705 psi	Air	UV	
6 NPS	8 NPS	13.421 in ²	[Q] 4.1339 in	1.653 in	30-1480 psi	Air	UV	
6 NPS	8 NPS	19.327 in ²	[R] 4.9606 in	1.984 in	30-1020 psi	Air	UV	
8 NPS	10 NPS	30.39 in ²	[T] 6.2205 in	2.488 in	30-985 psi	Air	UV	
10 NPS	14 NPS	43.943 in ²	[V] 7.48 in	2.992 in	30-765 psi	Air	UV	
12 NPS	16 NPS	61.626 in ²	[W] 8.858 in	3.543 in	30-765 psi	Air	UV	
14 NPS	18 NPS	82.291 in ²	[Y] 10.236 in	4.095 in	30-765 psi	Air	UV	
16 NPS	18 NPS	95.448 in ²	[Z] 11.024 in	4.409 in	30-765 psi	Air	UV	
16 NPS	20 NPS	109.563 in ²	[Z1] 11.811 in	4.724 in	30-765 psi	Air	UV	
18 NPS	24 NPS	140.732 in ²	[AA] 13.386 in	5.355 in	30-765 psi	Air	UV	
20 NPS	24 NPS	166.66 in²	[BB] 14.567 in	5.827 in	30-765 psi	Air	UV	
Design Name	e: HIXD Seri	ies (Liquid)		NBCert 7	7 12430			
Manufacturer/A	ssembler		Designato	ors	E>	piration Date		
Manufacturer			UV		11	/13/2026		
Design Type								
[Pilot Operated Pressure Relief Valve] HTXD Series (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on May 21, 2014 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.763 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift								
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Be	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro	acity: Flow Ca Liquid Stream Lift ochemical Tech	pacity, K nology & Equipment E	ingineering Corpora	ation Limited {BAP}			
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be	lishing Relieving Cap).763 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size	acity: Flow Ca Liquid Stream Lift pochemical Tech Flow Area	pacity, K nology & Equipment E Orifice [designator] dia.	ingineering Corpora	ation Limited {BAP} Set Pressure Range	Media	Designator	
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS	lishing Relieving Cap).763 Unitless ater/Liquid; Certified: finition: First Steady s acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS	acity: Flow Ca Liquid Stream Lift pochemical Tech Flow Area 0.134 in ²	pacity, K nology & Equipment E Orifice [designator] dia. [D] 0.4134 in	ingineering Corpora Lift 0.165 in	ation Limited {BAP} Set Pressure Range 30-6170 psi	Media Water	Designator UV	
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS	acity: Flow Ca Liquid Stream Lift <u>cchemical Tech</u> Flow Area 0.134 in ² 0.239 in ²	pacity, K nology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in	ingineering Corpora Lift 0.165 in 0.22 in	ation Limited {BAP} Set Pressure Range 30-6170 psi 30-6170 psi	Media Water Water	Designator UV UV	
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady : acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS	acity: Flow Ca Liquid Stream Lift Flow Area 0.134 in ² 0.239 in ² 0.373 in ²	pacity, K nology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in	ingineering Corpora Lift 0.165 in 0.22 in 0.276 in	ation Limited {BAP} Set Pressure Range 30-6170 psi 30-6170 psi 30-6170 psi	Media Water Water Water	Designator UV UV UV	
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady : acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS	acity: Flow Ca Liquid Stream Lift pochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.616 in ²	pacity, K nology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in	Engineering Corpora Lift 0.165 in 0.22 in 0.276 in 0.355 in	ation Limited {BAP} Set Pressure Range 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi	Media Water Water Water Water	Designator UV UV UV UV	
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS	Acity: Flow Ca Liquid Stream Lift Dechemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.616 in ² 0.954 in ²	pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in [H] 1.102 in	Engineering Corpora Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in	Ation Limited {BAP} Set Pressure Range 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi	Media Water Water Water Water Water	Designator UV UV UV UV UV UV UV UV UV	
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady s acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3, 4 NPS	acity: Flow Ca Liquid Stream Lift ochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.616 in ² 0.954 in ²	pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in [H] 1.102 in [J] 1.4173 in	Engineering Corpora Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in 0.567 in	ation Limited {BAP} Set Pressure Range 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi	Media Water Water Water Water Water Water	Designator UV	
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady is acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3, 4 NPS 4 NPS	acity: Flow Ca Liquid Stream Lift Dechemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.616 in ² 0.954 in ² 1.578 in ² 2.251 in ²	pacity, K nology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in [H] 1.102 in [J] 1.4173 in [K] 1.693 in	Ingineering Corpora Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in 0.567 in 0.677 in	Ation Limited {BAP} Set Pressure Range 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi 30-620 psi 30-3705 psi	Media Water Water Water Water Water Water Water	Designator UV	
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS 3-4 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady : acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3, 4 NPS 4 NPS 4, 6 NPS	bacity: Flow Ca Liquid Stream Lift Dochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.616 in ² 0.954 in ² 1.578 in ² 2.251 in ² 3.484 in ²	pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in [H] 1.102 in [J] 1.4173 in [K] 1.693 in [L] 2.1063 in	Ingineering Corporation Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in 0.567 in 0.677 in 0.843 in	Ation Limited {BAP} Set Pressure Range 30-6170 psi 30-705 psi	Media Water Water Water Water Water Water Water Water	Designator UV	
Method of Estab Certified Value: (Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS 3-4 NPS 4-4 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3, 4 NPS 4 NPS 4, 6 NPS 6 NPS	bacity: Flow Ca Liquid Stream Lift bochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.373 in ² 0.616 in ² 0.954 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.383 in ²	pacity, K Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in [H] 1.102 in [J] 1.4173 in [K] 1.693 in [L] 2.1063 in [M] 2.3622 in	Ingineering Corporation Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in 0.567 in 0.677 in 0.843 in 0.945 in	Set Pressure Set Pressure 30-6170 psi 30-3705 psi 30-3705 psi	Media Water Water Water Water Water Water Water Water	Designator UV	
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Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS 3-4 NPS 4-4 NPS 4-4 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady is acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 6 NPS 6 NPS 6 NPS	bacity: Flow Ca Liquid Stream Lift Dochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.373 in ² 0.616 in ² 0.954 in ² 2.251 in ² 3.484 in ² 4.383 in ² 5.303 in ²	pacity, K nology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in [H] 1.102 in [J] 1.4173 in [K] 1.693 in [L] 2.1063 in [M] 2.3622 in [M] 2.5984 in [P] 3.1496 in	Initial composition Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in 0.567 in 0.677 in 0.843 in 0.945 in 1.04 in 1.26 in	Ation Limited {BAP} Set Pressure Range 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi 30-6170 psi 30-3705 psi 30-3705 psi 30-3705 psi 30-3705 psi 30-3705 psi 30-3705 psi	MediaWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWater	Designator UV	
Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS 3-4 NPS 4-4 NPS 4-4 NPS 6-6 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady is acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3 NPS 3 NPS 4 NPS 4 NPS 4 NPS 6 NPS 6 NPS 6 NPS 8 NPS	bacity: Flow Ca Liquid Stream Lift Dochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.373 in ² 0.616 in ² 0.954 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.383 in ² 5.303 in ² 7.791 in ² 13.421 in ²	pacity, K orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [F] 0.689 in [G] 0.8858 in [H] 1.102 in [J] 1.4173 in [L] 2.1063 in [L] 2.1063 in [M] 2.3622 in [M] 2.3984 in [P] 3.1496 in [Q] 4.1339 in	Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in 0.567 in 0.843 in 0.945 in 1.04 in 1.26 in 1.653 in	Set Pressure Set Pressure 30-6170 psi 30-3705 psi 30-3705 psi 30-3705 psi 30-3705 psi 30-3705 psi 30-3705 psi	Media Water Water Water Water Water Water Water Water Water Water Water	Designator UV	
Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 2-3 NPS 3-4 NPS 3-4 NPS 4-4 NPS 4-4 NPS 6-6 NPS 6-6 NPS	lishing Relieving Cap 0.763 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4 NPS 4 NPS 6 NPS 6 NPS 6 NPS 8 NPS 8 NPS 8 NPS	Aacity: Flow Ca Liquid Stream Lift Dochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.373 in ² 0.616 in ² 0.954 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.383 in ² 5.303 in ² 7.791 in ² 13.421 in ² 19.327 in ²	pacity, K nology & Equipment E Orifice [designator] dia. [D] 0.4134 in [E] 0.5512 in [E] 0.689 in [G] 0.8858 in [H] 1.102 in [J] 1.4173 in [J] 1.4173 in [J] 1.4173 in [J] 1.4173 in [J] 1.4173 in [J] 1.4173 in [H] 1.102 in [H] 1.102 in [H] 1.102 in [H] 1.102 in [H] 1.102 in [H] 1.4173 in [H] 2.3622 in [H] 2.36984 in [H] 3.1496 in [H] 4.961 in	Ingineering Corporation Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in 0.567 in 0.677 in 0.843 in 0.945 in 1.04 in 1.26 in 1.853 in 1.984 in	Set Pressure Set Pressure 30-6170 psi 30-3705 psi	Media Water Water Water Water Water Water Water Water Water Water Water	Designator UV	
Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be 1-1.5 NPS 1-1.5 NPS	lishing Relieving Cap 2.763 Unitless ater/Liquid; Certified: finition: First Steady is acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3 NPS 3 NPS 4 NPS 4 NPS 4 NPS 4 NPS 6 NPS 6 NPS 6 NPS 8 NPS 8 NPS 10 NPS	Acity: Flow Ca Liquid Stream Lift Dochemical Tech Flow Area 0.134 in ² 0.239 in ² 0.373 in ² 0.373 in ² 0.616 in ² 0.954 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.383 in ² 5.303 in ² 7.791 in ² 13.421 in ² 19.327 in ² 30.39 in ²	pacity, K mology & Equipment E Crifice [designator] dia. [D] 0.4134 in [D] 0.4134 in [E] 0.5512 in [G] 0.8858 in [G] 0	Lift 0.165 in 0.22 in 0.276 in 0.355 in 0.441 in 0.567 in 0.677 in 0.843 in 1.04 in 1.26 in 1.853 in 1.984 in 2.488 in	Set Pressure Set Pressure 30-6170 psi 30-3705 psi 30-300 psi 30-300 psi 30-300 psi 30-300 psi 30-300 psi	MediaWater	Designator UV UV	

12-12 NPS	16 NPS	61.626 in ²	[W] 8.858 in	3.543 in	30-765 psi	Water	UV	
14-14 NPS	18 NPS	82.291 in ²	[Y] 10.236 in	4.095 in	30-765 psi	Water	UV	
16-16 NPS	18 NPS	95.448 in ²	[Z] 11.024 in	4.409 in	30-765 psi	Water	UV	
16-16 NPS	20 NPS	109.563 in ²	[Z1] 11.811 in	4.724 in	30-765 psi	Water	UV	
18-18 NPS	24 NPS	140.732 in ²	[AA] 13.386 in	5.355 in	30-765 psi	Water	UV	
20-20 NPS	24 NPS	166.66 in ²	[BB] 14.567 in	5.827 in	30-765 psi	Water	UV	
Design Name	e: HTXO Ser	ies		NBCert #	# 12452	2		
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date		
Manufacturer			UV		0	5/24/2027		
Design Type								
Design Type [Safety Relief Valve] HTXO Series Capacity Tests: Sec. UV at National Board Testing Lab on June 30, 2015 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.823 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Beiling Aerospace Petrochemical Technology & Equipment Engineering Corporation Limited (BAP)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
Inlet Size	Outlet Size .5-1 NPS	Flow Area 0.122 in ²	Orifice [designator] dia. 0.394 in	Lift 0.118 in	Set Pressure Range 15-6000 psi	Media Air	Designator UV	
Inlet Size 0.5-1 NPS Design Name	Outlet Size .5-1 NPS e: HTXO Ser	Flow Area 0.122 in² ies (Liquid)	Orifice [designator] dia. 0.394 in	Lift 0.118 in NBCert #	Set Pressure Range 15-6000 psi # 12418	Media Air	Designator UV	
Inlet Size 0.5-1 NPS Design Name Manufacturer/A	Outlet Size .5-1 NPS e: HTXO Ser ssembler	Flow Area 0.122 in² ies (Liquid)	Orifice [designator] dia. 0.394 in Designato	Lift 0.118 in NBCert #	Set Pressure Range 15-6000 psi # 12418	Media Air	Designator UV	
Inlet Size 0.5-1 NPS Design Name Manufacturer/A Manufacturer	Outlet Size .5-1 NPS e: HTXO Ser ssembler	Flow Area 0.122 in² ies (Liquid)	Orifice [designator] dia. 0.394 in Designato	Lift 0.118 in NBCert #	Set Pressure Range 15-6000 psi # 12418 E 1	Media Air Sixpiration Date	Designator UV	
Inlet Size 0.5-1 NPS Design Name Manufacturer/A Manufacturer Design Type	Outlet Size .5-1 NPS e: HTXO Ser ssembler	Flow Area 0.122 in² ies (Liquid)	Orifice [designator] dia. 0.394 in Designato UV	Lift 0.118 in NBCert #	Set Pressure Range 15-6000 psi # 12418 E 1	Media Air Expiration Date	Designator UV	
Inlet Size 0.5-1 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: C Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Be	Outlet Size .5-1 NPS MTXO Series (L Sec. UV at National E lishing Relieving Cap 3.300 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro	Flow Area 0.122 in ² ies (Liquid) ies (Liquid) board Testing L bacity: Flow Ca SID Liquid Stream Lift bochemical Tech	Orifice [designator] dia. 0.394 in Designato UV ab on May 20, 2014 pacity, Flow Factor	Lift 0.118 in NBCert 7	Set Pressure Range 15-6000 psi # 12418 1 1 1	Media Air Expiration Date	Designator UV	
Inlet Size 0.5-1 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 3 Method Stab Stab Stab Stab Stab Stab Stab Stab	Outlet Size .5-1 NPS : HTXO Ser ssembler Ne] HTXO Series (L Sec. UV at National E lishing Relieving Cap 3.300 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ijing Aerospace Petro Outlet Size	Flow Area 0.122 in ² ies (Liquid) ies (Liquid) board Testing L board L board Testing L board	Orifice [designator] dia. 0.394 in Designato UV ab on May 20, 2014 pacity, Flow Factor	Lift 0.118 in NBCert # ors	Set Pressure Range 15-6000 psi # 12418 # 12418 1 1 1 1 1 1 1 1	Media Air Air Air Air Air Air Air Air Air Air	Designator	

Bellofram Acquisition Company II (WHI)

Oklahoma City, OK 73149United States

Design Nam	ne: P2500 (Li		NBC	ert # 0197				
Manufacturer/	Assembler		Designat	ors		Expiration Da	ite	
Manufacturer L			UV			06/29/2027		
Design Type [Relief Valve] P2500 (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on February 1, 2021 Method of Establishing Relieving Capacity: Flow Capacity, K Cartified Valve: 0.501 Unit loss								
Certified Value: Media - Test: V Set Pressure D Blowdown Cha Flow Area Cont Designed by: B	V.591 Unitiess Vater/Liquid; Certified vefinition: First Steady racteristics: Fixed figuration: Nozzle/Ful ellofram Acquisition (l: Liquid / Stream I Lift Company II {Wł	-11}					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.125 in ²	[D] 0.4 in	0.1 in	25-2500 psi	Water	UV	
0.5-2 NPS	2 NPS	0.223 in ²	[E] 0.534 in	0.134 in	50-2500 psi	Water	UV	
1.25-2 NPS	2 NPS	0.354 in²	[F] 0.672 in	0.168 in	15-1600 psi	Water	UV	

0.214 in

75-1500 psi

UV

Nameplate Abbreviation: BERMINGHAM CONTROLS

Water

Bermingham Controls, Inc. (LSL)

2 NPS

0.576 in²

[G] 0.857 in

Cerritos, CA 90703United States

1.25-2 NPS

Design Name: 1541, 1543, 1541-3, 1543-3 NBCert # 18032								
Manufacturer/A	ssembler		Designato	Designators				
Assembler			UV, V		02	/28/2028		
Design Type								
[Safety Valve] 1541, 1543, 1541-3, 1543-3 Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V	
0.5-0.75 NPS	.75 NPS	0.11 in²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV	
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V	
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV	
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V	
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV	

0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-300 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	02/28/2028

Design Type

[Safety Valve] 1811, 1511

Capacity Tests: Sec. UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Steam	UV, V
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Air	UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Steam	UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Air	UV
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Air	UV
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Air	UV
2-3 NPS	3, 4 NPS	1.84 in²	[K] 1.531 in	0.383 in	15-1500 psi	Steam	UV, V
2-3 NPS	3, 4 NPS	1.84 in²	[K] 1.531 in	0.383 in	15-1500 psi	Air	UV
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Steam	UV, V

2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Air	UV
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Steam	UV, V
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Air	UV
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV

Design Name:	1900, 1900-30 1900-35 LA & (Liquids)	DALA	NBCert # 187	84
Manufacturer/Assem	bler	Designators		Expiration Date
Assembler		UV		04/04/2028

Design Type

[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V
6-6 NPS	8 NPS	12.851 in²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V
6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V
Design Nam	e: 1900, 190	0-30, 1900	-35	NBCert	# 18201		
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Manufacturer/A	Assembler		Designate	ors	E	xpiration Date	
Assembler			UV		04	4/04/2028	
Design Type							
[Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV

[T4] 6.205 in

1.723 in

15-300 psi

Air

30.21 in²

8 NPS

10 NPS

NV, UV

8 NPS	10 NPS	30.21 in²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV	
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV	
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV	
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV	
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV	
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV	
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV	
Design Name: 19000 Series NBCert # 18706								
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Assembler			UV		02	/28/2028		
Design Type								
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV	

2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV
2-2 NPS	2.5 NPS	0.567 in²	0.85 in	0.266 in	15-1000 psi	Steam	UV
2-2 NPS	2.5 NPS	0.567 in²	0.85 in	0.266 in	15-1000 psi	Steam	NV
Design Name	e: 1900D-2, 1	900-30D-2		NBCert #	ŧ 18144		
Manufacturer/A	ssembler		Designato	rs	Ex	piration Date	
Assembler			UV		04	/04/2028	
Design Type							
[Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV
Design Name	e: 1900-DM			NBCert #	ŧ 19066		
Manufacturer/A	ssembler		Designato	rs	Ex	piration Date	
Manufacturer/A	ssembler		Designato	rs	Ex	piration Date	
Manufacturer/A Assembler Design Type	ssembler	_	Designato UV	rs	Ex 02	piration Date	_
Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatio Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	ssembler lve] 1900-DM on: Sec. UV at Dresser, In lishing Relieving Cap).855 Unitless; (alterr /Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ}	nc. on March 1 acity: Flow Ca nate medium): Certified: Air, G First Steady Str Lift	Designato UV 5, 2010 bacity, K 0.670 Unitless; Certific as, Liquid ream	rs ation Provisions: M	Ex 02 Iultiple Media (Cod	piration Date /28/2028 e Case 2787)	
Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatic Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	Ive] 1900-DM on: Sec. UV at Dresser, Ir lishing Relieving Cap 0.855 Unitless; (alterr /Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size	nc. on March 1 acity: Flow Ca nate medium): Certified: Air, G First Steady St Lift Flow Area	Designato UV 5, 2010 pacity, K 0.670 Unitless; Certific as, Liquid ream Orifice [designator] dia.	rs cation Provisions: M	Lex 02 Iultiple Media (Cod Set Pressure Range	piration Date /28/2028 e Case 2787) Media	Designator
Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatic Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre Inlet Size	Ive] 1900-DM on: Sec. UV at Dresser, In lishing Relieving Cap 0.855 Unitless; (alterr /Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS	nc. on March 1 acity: Flow Ca nate medium): Certified: Air, Gi First Steady Str Lift Flow Area 0.3568 in ²	Designato UV 5, 2010 pacity, K 0.670 Unitless; Certific as, Liquid ream Orifice [designator] dia. [F] 0.674 in	rs cation Provisions: M Lift 0.182 in	Ex 02 Iultiple Media (Cod Set Pressure Range 15-10000 psi	e Case 2787) Media	Designator UV
Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatio Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure Des Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 1.5 NPS 1.5 NPS	Ive] 1900-DM on: Sec. UV at Dresser, In lishing Relieving Cap).855 Unitless; (alterr /Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS	nc. on March 1 acity: Flow Cap nate medium): Certified: Air, G First Steady Str Lift Flow Area 0.3568 in ² 0.3568 in ²	Designato UV 5, 2010 bacity, K 0.670 Unitless; Certific as, Liquid ream Orifice [designator] dia. [F] 0.674 in [F] 0.674 in	rs cation Provisions: M Lift 0.182 in 0.182 in	Set Pressure Range Cod 15-10000 psi 15-10000 psi	e Case 2787) Media Air Water	Designator UV UV
Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatio Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure Des Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 1.5 NPS 1.5 NPS 1.5-2 NPS	Ive] 1900-DM on: Sec. UV at Dresser, In lishing Relieving Cap 0.855 Unitless; (altern /Gas, Water/Liquid; C finition(1): Pop; (2): 1 acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 3 NPS	nc. on March 1 acity: Flow Cap ate medium): Certified: Air, G First Steady Str Lift Flow Area 0.3568 in ² 0.3568 in ² 0.5849 in ²	Designato UV 5, 2010 bacity, K 0.670 Unitless; Certific as, Liquid ream Orifice [designator] dia. [F] 0.674 in [F] 0.674 in [G] 0.863 in	rs cation Provisions: M Lift 0.182 in 0.182 in 0.234 in	Ex 02 02 03 04 04 04 04 04 04 04 04 04 04 04 04 04	Nedia Air Air	Designator UV UV UV UV UV UV
Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatic Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre 1.5 NPS 1.5 NPS 1.5-2 NPS 1.5-2 NPS	Ive] 1900-DM on: Sec. UV at Dresser, Ir lishing Relieving Cap 0.855 Unitless; (alterr /Gas, Water/Liquid; (finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 3 NPS 3 NPS	nc. on March 1 acity: Flow Cap hate medium): Certified: Air, Ga First Steady Str Lift Flow Area 0.3568 in ² 0.3568 in ² 0.5849 in ²	Designato UV 5, 2010 oacity, K 0.670 Unitless; Certification as, Liquid ream Orifice [designator] dia. [F] 0.674 in [G] 0.863 in [G] 0.863 in	Lift 0.182 in 0.182 in 0.234 in 0.234 in	Ex 02 02 04 05	Piration Date Image: Date <t< td=""><td>Designator UV UV</td></t<>	Designator UV
Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatic Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 1.5 NPS 1.5 NPS 1.5-2 NPS 1.5-2 NPS	ssembler Ive] 1900-DM on: Sec. UV at Dresser, In lishing Relieving Cap 0.855 Unitless; (alterr /Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full I esser, LLC {DRJ} Outlet Size 2 - 3 NPS 3 NPS 3 NPS 3 NPS	nc. on March 1 acity: Flow Ca hate medium): Certified: Air, Gi First Steady Str Lift 0.3568 in ² 0.3568 in ² 0.5849 in ² 0.5849 in ² 0.9127 in ²	Designato UV 5, 2010 Dacity, K 0.670 Unitless; Certification as, Liquid [F] 0.674 in [F] 0.674 in [G] 0.863 in [G] 0.863 in [H] 1.078 in	rs cation Provisions: M Lift 0.182 in 0.182 in 0.234 in 0.234 in 0.395 in	Ex O2 O2 O2 O2 O2 O2 O2 O2 O2 O2	Air	Designator UV
Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatio Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure Dee Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 1.5 NPS 1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	ssembler Ive] 1900-DM on: Sec. UV at Dresser, In lishing Relieving Cap 0.855 Unitless; (alterr /Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 3 NPS 3 NPS 3 NPS 3 NPS 3 NPS	nc. on March 1 acity: Flow Cap nate medium): Certified: Air, Gi First Steady Str Lift 0.3568 in ² 0.3568 in ² 0.5849 in ² 0.5849 in ² 0.9127 in ²	Designato UV 5, 2010 pacity, K 0.670 Unitless; Certific as, Liquid [F] 0.674 in [F] 0.674 in [G] 0.863 in [G] 0.863 in [H] 1.078 in	rs cation Provisions: M Lift 0.182 in 0.182 in 0.234 in 0.234 in 0.395 in 0.395 in	Ex 02	Air Vater Air	Designator UV
Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatio Capacity Tests: S Method of Establ Certified Value: C Media - Test: Air Set Pressure Des Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 1.5 NPS 1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	ssembler [Ve] 1900-DM on: Sec. UV at Dresser, In lishing Relieving Cap 0.855 Unitless; (alterr /Gas, Water/Liquid; (D finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 3 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS	nc. on March 1 acity: Flow Cap hate medium): Certified: Air, Gi First Steady Str Lift Flow Area 0.3568 in ² 0.3568 in ² 0.5849 in ² 0.5849 in ² 0.9127 in ² 0.9127 in ² 1.496 in ²	Designato UV 5, 2010 0.670 Unitless; Certification as, Liquid Crifice [G] 0.674 in [G] 0.863 in [G] 0.863 in [H] 1.078 in [J] 1.38 in	rs ation Provisions: M Lift 0.182 in 0.182 in 0.234 in 0.234 in 0.395 in 0.395 in 0.395 in 0.506 in	Set Pressure Range I 15-10000 psi 1	Air	Designator UV
Manufacturer/AAssemblerDesign TypeSafety Relief VaHolderDesignaticCapacity Tests: SMethod of EstablCertified Value: CMethod of EstablCertified Value: CMethod of EstablSet Pressure DeBlowdown CharaFlow Area ConfigDesigned by: DressI.5 NPS1.5 NPS1.5-2 NPS1.5-2 NPS1.5-2 NPS2-3 NPS2-3 NPS	ssembler Ive] 1900-DM on: Sec. UV at Dresser, Ir lishing Relieving Cap 0.855 Unitless; (alterr /Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 3 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 3, 4 NPS	nc. on March 1 acity: Flow Cap hate medium): Certified: Air, Gi First Steady Str Lift Flow Area 0.3568 in ² 0.3568 in ² 0.5849 in ² 0.9127 in ² 0.9127 in ² 1.496 in ²	Designato UV 5, 2010 oacity, K 0.670 Unitless; Certification as, Liquid [F] 0.674 in [F] 0.674 in [G] 0.863 in [G] 0.863 in [H] 1.078 in [J] 1.38 in [J] 1.38 in	rs ation Provisions: M Lift 0.182 in 0.182 in 0.234 in 0.234 in 0.395 in 0.395 in 0.395 in 0.506 in 0.506 in	Set Pressure 15-10000 psi	e Case 2787) Media Air Vater Air Vater Vater Vater Vater Air Vater Air Vater Air Air Air	Designator UV
Manufacturer/AAssemblerDesign TypeSafety Relief Va HolderDesignatic Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure Designed by: DressInter SizeInter Size1.5 NPS1.5-2 NPS1.5-2 NPS1.5-2 NPS2-3 NPS2-3 NPS3 NPS	ssembler Ive] 1900-DM on: Sec. UV at Dresser, In lishing Relieving Cap 0.855 Unitless; (alterr /Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full I esser, LLC {DRJ} Outlet Size 2 - 3 NPS 3 N	nc. on March 1 acity: Flow Cap hate medium): Certified: Air, Gi First Steady Str Lift 0.3568 in ² 0.3568 in ² 0.5849 in ² 0.9127 in ² 0.9127 in ² 1.496 in ² 1.496 in ² 2.138 in ²	Designato UV 5, 2010 Doacity, K 0.670 Unitless; Certification as, Liquid Crifice [Go.674 in [F] 0.674 in [G] 0.863 in [G] 0.863 in [H] 1.078 in [J] 1.38 in [J] 1.38 in [K] 1.65 in	rs ation Provisions: M Lift 0.182 in 0.182 in 0.234 in 0.234 in 0.235 in 0.395 in 0.395 in 0.506 in 0.506 in 0.506 in 0.605 in	Ex Q Q Q	Air Air Air Air Air Air Air Air Air Air	Designator UV UV

3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Air	UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	0.846 in	15-1600 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	0.846 in	15-1600 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.782 in	15-650 psi	Air	UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.782 in	15-650 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-360 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-360 psi	Water	UV
8 NPS	10 NPS	35 in ²	[U] 6.688 in	2.428 in	15-360 psi	Air	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	2.428 in	15-360 psi	Water	UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Air	UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Air	UV
		78 996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	UV
12 NPS	10 NP3	70.000 11	[]				
12 NPS Design Name	e: 1900-DM-[[]	NBCert #	<i>‡</i> 19088		
12 NPS Design Name Manufacturer/A	e: 1900-DM-[ssembler)	Designato	NBCert #	# 19088 E:	cpiration Date	
12 NPS Design Name Manufacturer/A Assembler	e: 1900-DM-[)	Designato	NBCert #	# 19088 E: 02	<pre>cpiration Date 2/28/2028</pre>	
12 NPS Design Name Manufacturer/A Assembler Design Type	e: 1900-DM-[)	Designato	NBCert #	# 19088 E: 02	<pre>cpiration Date 2/28/2028</pre>	
12 NPS Design Name Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatic Capacity Tests: S Method of Estab Certified Value: 1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	Ive] 1900-DM-I ssembler lve] 1900-DM-D on: Sec. UV at National E lishing Relieving Cap I.991 SCFM/PSIA; (a /Gas, Water/Liquid; (finition(1): Pop; (2): facteristics: Fixed guration: Restricted L esser, LLC {DRJ}	Board Testing L bacity: Flow Ca liternate mediu Certified: Air, G First Steady St ift	Designato UV ab on March 18, 2010 pacity, Slope m): 3.256 GPM/SQ.R ⁻ as, Liquid ream	NBCert # ors T. PSID; Certificatio	# 19088 E: 02	xpiration Date 2/28/2028 ple Media (Cod	de Case 2787)
12 NPS Design Name Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatic Capacity Tests: S Method of Estab Certified Value: 1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre Inlet Size	IVE] 1900-DM-I ssembler IVE] 1900-DM-D on: Sec. UV at National E lishing Relieving Cap I.991 SCFM/PSIA; (a c/Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size	Board Testing L bacity: Flow Ca liternate mediu Certified: Air, G First Steady St ift Flow Area	Designato UV ab on March 18, 2010 pacity, Slope m): 3.256 GPM/SQ.R' as, Liquid ream Orifice [designator] dia.	NBCert # ors T. PSID; Certificatio	# 19088 E: 02 on Provisions: Multi Set Pressure Range	xpiration Date 2/28/2028 ple Media (Coo	de Case 2787) Designator
12 NPS Design Name Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatic Capacity Tests: S Method of Estab Certified Value: 1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 1-1.5 NPS	Ive] 1900-DM-I ssembler lve] 1900-DM-D on: Sec. UV at National E lishing Relieving Cap I.991 SCFM/PSIA; (a c/Gas, Water/Liquid; (finition(1): Pop; (2): I acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size 2 - 3 NPS	Board Testing L Board Testing L Bacity: Flow Ca Ilternate mediu Certified: Air, G First Steady St ift Flow Area 0.1279 in ²	Designato UV ab on March 18, 2010 pacity, Slope m): 3.256 GPM/SQ.R ⁻ as, Liquid ream Orifice [designator] dia. [D] 0.674 in	NBCert # ors T. PSID; Certificatio	# 19088 E: 02 on Provisions: Multi Set Pressure Range 15-10000 psi	xpiration Date 2/28/2028 ple Media (Cod Media Air	de Case 2787) Designator UV
12 NPS Design Name Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatic Capacity Tests: S Method of Estab Certified Value: 1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS Design Name	Ive] 1900-DM-I ssembler lve] 1900-DM-D on: Sec. UV at National E lishing Relieving Cap 1.991 SCFM/PSIA; (a c/Gas, Water/Liquid; (finition(1): Pop; (2): 1 acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size 2 - 3 NPS : 1900E-2, 1	Board Testing L Board Testing L Boardy: Flow Ca Ilternate mediu Certified: Air, G First Steady St ift Flow Area 0.1279 in ² 900-30E-2	Designato UV ab on March 18, 2010 pacity, Slope m): 3.256 GPM/SQ.R ⁻ as, Liquid ream Orifice [designator] dia. [D] 0.674 in	NBCert # ors T. PSID; Certification Lift 0.067 in NBCert #	 # 19088 E: 02 on Provisions: Multi Set Pressure Range 15-10000 psi # 18166 	xpiration Date 2/28/2028 ple Media (Coo Media Air	de Case 2787) Designator UV
12 NPS Design Name Manufacturer/A Assembler Design Type [Safety Relief Va HolderDesignatio Capacity Tests: 32 Method of Estab Certified Value: 1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS Design Name Manufacturer/A	Ive] 1900-DM-I ssembler lve] 1900-DM-D on: Sec. UV at National E lishing Relieving Cap 1.991 SCFM/PSIA; (a c/Gas, Water/Liquid; (finition(1): Pop; (2): 1 acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size 2 - 3 NPS : 1900E-2, 1 ssembler	Board Testing L Board Testing L Boardy: Flow Ca Ilternate mediu Certified: Air, G First Steady St ift Flow Area 0.1279 in ² 900-30E-2	Designato UV ab on March 18, 2010 pacity, Slope m): 3.256 GPM/SQ.R ⁻ as, Liquid ream Orifice [designator] dia. [D] 0.674 in Designato	NBCert # ors T. PSID; Certification Lift 0.067 in NBCert #	 # 19088 E: 02 on Provisions: Multi Set Pressure Range 15-10000 psi # 18166 E: 	xpiration Date 2/28/2028 ple Media (Coo Media Air	de Case 2787) Designator UV

Design Type

[Safety Relief Valve] 1900E-2, 1900-30E-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value:10.040 PPH/PSIA; (alternate medium): 3.570 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV

Design Name: 1900E-2, 1900-30E-2 LA & DALA (Liquids) NBCert # 18

Manufacturer/A	ssembler			Designators			Expiration Date		
Assembler				UV			07/28/2028		
Design Type									
[Relief Valve] 19 Capacity Tests: 5 Method of Establ Certified Value: 5 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	Relief Valve] 1900E-2, 1900-30E-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 5.798 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser LL C (DR I)								
Inlet Size	Outlet Size	Flow Area	Orifice [designate	or] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 ii	n	0.093 in	15-6250 psi	Water	NV, UV, V	

Berstscheiben Schlesinger GmbH (BER)

Schalksmuhle, D-58579Germany

Design Name: BK		NBCert # 43	3029	
Manufacturer/Assembler	Designators		Expiration Date	
Manufacturer	UD		06/08/2024	
Design Type [Rupture Disk Device] BK HolderDesignation: H Capacity Tests: Sec. UD at National Board Testing Lab on June Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 2.980 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Berstscheiben Schlesinger GmbH {BER}	e 12, 2017 ed: Compressible a	and Incompressible (Krgl))	

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5 in		0.151 in²			217.5-1450 psi		UD
0.75 in		0.223 in ²			217.5-1450 psi		UD
1 in		0.409 in ²			145-1450 psi		UD
1.25 in		0.697 in ²			108.75-1450 psi		UD
1.5 in		0.949 in ²			108.75 - 1160 psi		UD
10 in		42.799 in ²			14.5-725 psi		UD
2 in		1.569 in ²			72.5-1160 psi		UD
2.5 in		2.607 in ²			72.5-1160 psi		UD
3 in		4.243 in ²			72.5-1160 psi		UD
4 in		6.559 in ²			72.5-1087.5 psi		UD
6 in		16.519 in²			29-1015 psi		UD
8 in		28.569 in ²			14.5-870 psi		UD
Design Name				NBCert #	<i>4</i> 3030		

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	10/16/2024

Design Type

[Rupture Disk Device] C

HolderDesignation: H

Capacity Tests: Sec. UD at National Board Testing Lab on November 15, 2016

Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 2.590 Unitless

Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure

Flow Area Configuration: MNFA

Designed by: Berstscheiben Schlesinger GmbH {BER}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
100 DN		9.86 in ²			0.73-362.5 psi		UD
1000 DN		1098.64 in ²			0.36-145 psi		UD
125 DN		14.729 in ²			0.73-362.5 psi		UD
150 DN		23.86 in ²			0.36-290 psi		UD
20 DN		0.351 in²			4.35-580 psi		UD
200 DN		35.181 in²			0.29-290 psi		UD
25 DN		0.589 in ²			4.35-580 psi		UD
250 DN		64.396 in ²			0.29-290 psi		UD
300 DN		88.743 in ²			0.73-290 psi		UD
32 DN		0.954 in ²			4.35-580 psi		UD
350 DN		124.65 in ²			0.73-217.5 psi		UD
40 DN		1.407 in ²			4.35-580 psi		UD
400 DN		157.64 in ²			0.36-217.5 psi		UD
50 DN		2.25 in ²			1.45-580 psi		UD
500 DN		268.91 in²			0.36-145 psi		UD

600 DN	368.13 in ²	0.36-145 psi	UD
65 DN	3.682 in ²	1.45-580 psi	UD
700 DN	514.29 in ²	0.36-145 psi	UD
80 DN	5.964 in ²	1.16-580 psi	UD
800 DN	684.79 in ²	0.36-145 psi	UD
900 DN	879.47 in ²	0.36-145 psi	UD

Broady Flow Control Limited (BVL)

East Yorkshire, HU3 2DUUnited Kingdom

This Company Manufactures or Assembles:

Design Name: 3500 (Liquid)		NBCert # 93	013	
Manufacturer/Assembler	Designators		Expiration Date	
Manufacturer	UV		11/17/2025	
Design Type				
[Safety Relief Valve] 3500 (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on Feb Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.635 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Broady Flow Control Limited {BVL}	ruary 11, 2011			
Orifice		Set Pressur	e	

Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator
1-1.5 NPS	2,3 NPS	0.121 in ²	[D] 10 mm	2.5 mm	15-6400 psi	Water	UV
1-1.5 NPS	2,3 NPS	0.215 in ²	[E] 13.3 mm	3.32 mm	15-6200 psi	Water	UV
1.5 NPS	2,3 NPS	0.335 in ²	[F] 16.6 mm	4.15 mm	15-5100 psi	Water	UV
1.5-2 NPS	3 NPS	0.547 in ²	[G] 21.2 mm	5.3 mm	15-2800 psi	Water	UV
1.5-2 NPS	3 NPS	0.855 in ²	[H] 26.5 mm	6.63 mm	15-2800 psi	Water	UV
2-3 NPS	3,4 NPS	1.405 in ²	[J] 34 mm	8.5 mm	15-2850 psi	Water	UV
3 NPS	4,6 NPS	2.003 in ²	[K] 40.6 mm	10.2 mm	15-2160 psi	Water	UV
3-4 NPS	4,6 NPS	3.115 in ²	[L] 50.6 mm	12.7 mm	15-1560 psi	Water	UV
4 NPS	6 NPS	3.927 in ²	[M] 56.8 mm	14.2 mm	15-1140 psi	Water	UV
4 NPS	6 NPS	4.73 in ²	[N] 62.4 mm	15.7 mm	15-1050 psi	Water	UV
4 NPS	6 NPS	6.97 in ²	[P] 75.7 mm	19 mm	15-1020 psi	Water	UV
6 NPS	8 NPS	12.06 in ²	[Q] 99.6 in	25 mm	15-630 psi	Water	UV
6 NPS	8, 10 NPS	17.42 in ²	[R] 119.8 mm	30 mm	15-630 psi	Water	UV
8 NPS	10 NPS	28.4 in ²	[T] 152.8 mm	38.5 mm	15-300 psi	Water	UV

Nameplate Abbreviation: BROADY

Design Name	e: 3600			NBCert	# 930	24		
Manufacturer/A	ssembler		Designate	ors		Expiration Date	,	
Manufacturer			UV			08/16/2025		
Design Type								
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Br	alve] 3600 Sec. UV at National E blishing Relieving Cap 1.970 SCFM/PSIA; (a r/Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Nozzle/Full oady Flow Control Lin	Board Testing L bacity: Flow Ca alternate mediu ed: Air, Gas, St e Discharge Lift mited {BVL}	ab on March 1, 2010 pacity, Slope ım): 5.540 PPH/PSIA eam					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	84.9 mm²	10.4 mm	2.5 mm	15-2900 psi	Steam	UV	
0.5-1 NPS	1 NPS	84.9 mm²	10.4 mm	2.5 mm	15-3625 psi	Air	UV	
Design Name	e: 3600 (Liqu	iid)		NBCert	# 930	35		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer			UV			03/14/2025		
Design Type								
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 3 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Br	[Safety Relief Valve] 3600 (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on July 25, 2011 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 2.690 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	70.9 mm²	9.5 mm	2.4 mm	1-250 psi	Water	UV	
Design Name	e: 4000 (API Acting Pilo	Nozzle -Mo ot, Liquid)	odulating & Snap	NBCert	# 930	79		
Manufacturer/A	ssembler		Designate	ors		Expiration Date	i de la construcción de la constru	
Manufacturer			UV			03/14/2025		
Design Type								
[Pilot Operated Pressure Relief Valve] 4000 (API Nozzle -Modulating & Snap Acting Pilot, Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on October 13, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.724 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Broady Flow Control Limited {BVL}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
25-40 DN	50 DN	78.54 mm²	[D] 10 mm	10 mm	29-6400 psi	Water	UV	

25-40 DN	50 DN	135.85 mm²	[E] 13.25 mm	10 mm	29-6400 psi	Water	UV	
25-40 DN	50 DN	216.42 mm ²	[F] 16.6 mm	10 mm	29-6170 psi	Water	UV	
40-50 DN	50, 80 DN	354.66 mm²	[G] 21.25 mm	15 mm	29-6170 psi	Water	UV	
40-50 DN	80 DN	551.55 mm²	[H] 26.5 mm	15 mm	29-6170 psi	Water	UV	
50-80 DN	80, 100 DN	913.27 mm ²	[J] 34.1 mm	19 mm	29-4620 psi	Water	UV	
80 DN	100 DN	1294.62 mm²	[K] 40.6 mm	29 mm	29-3705 psi	Water	UV	
80-100 DN	100, 150 DN	2010.9 mm ²	[L] 50.6 mm	29 mm	29-3705 psi	Water	UV	
100 DN	150 DN	2524.97 mm²	[M] 56.7 mm	37 mm	29-3705 psi	Water	UV	
100 DN	150 DN	3058.15 mm²	[N] 62.4 mm	37 mm	29-3705 psi	Water	UV	
100 DN	150 DN	4417.86 mm²	[P] 75 mm	37 mm	29-3705 psi	Water	UV	
150 DN	200 DN	7791.28 mm²	[Q] 99.6 mm	53 mm	29-1480 psi	Water	UV	
150 DN	200 DN	11122 mm ²	[R] 119 mm	53 mm	29-1020 psi	Water	UV	
200 DN	250 DN	18337.3 mm²	[T] 152.8 mm	71 mm	29-985 psi	Water	UV	
Design Name: 4000 (Full Bore, Modulating & Snap Acting NBCert # 93046 Pilot, Air/gas))								
Manufacturer/Assembler Designators Expiration Date								
Manufacturer/A	SSembler		Designato	15				
Manufacturer/A	ssembler		UV		05	/23/2028		
Manufacturer/A Manufacturer Design Type	ssembler	_	UV		05	/23/2028		
Manufacturer Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Bro	Pressure Relief Valve Sec. UV at National E lishing Relieving Cap).729 Unitless /Gas; Certified: Air, G finition: Initial Audible acteristics: Adjustable guration: Nozzle/Full bady Flow Control Lir] 4000 (Full Bo board Testing L board Testing L bacity: Flow Ca bacharge ba	UV ore, Modulating & Snap ab on April 15, 2015 pacity, K Mod. Pilot	o Acting Pilot, Air/ga	05 is))	/23/2028		
Manufacturer Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Bro	Pressure Relief Valve Sec. UV at National E lishing Relieving Cap 0.729 Unitless /Gas; Certified: Air, C finition: Initial Audible guration: Nozzle/Full pady Flow Control Lir Outlet Size] 4000 (Full Bo Board Testing L Pacity: Flow Ca Discharge and Fixed for Lift mited {BVL}	UV ore, Modulating & Snap ab on April 15, 2015 pacity, K Mod. Pilot Orifice [designator] dia.	Acting Pilot, Air/ga	(Set Pressure Range	/23/2028 Media	Designator	
Manufacturer Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Bro Inlet Size 25 DN	Pressure Relief Valve Sec. UV at National E lishing Relieving Cap).729 Unitless /Gas; Certified: Air, G finition: Initial Audible acteristics: Adjustable guration: Nozzle/Full bady Flow Control Lir Outlet Size 50 DN] 4000 (Full Bo Board Testing L Pacity: Flow Ca Bas Discharge and Fixed for Lift nited {BVL} Flow Area 508.7 mm ²	UV Dre, Modulating & Snap ab on April 15, 2015 pacity, K Mod. Pilot Orifice [designator] dia. [G1] 25.45 mm	Acting Pilot, Air/ga	Set Pressure Range 29-6400 psi	/23/2028 Media Air	Designator	
Manufacturer Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure Des Blowdown Chara Flow Area Config Designed by: Bro Inlet Size 25 DN 40 DN	Pressure Relief Valve Sec. UV at National E lishing Relieving Cap).729 Unitless /Gas; Certified: Air, O finition: Initial Audible acteristics: Adjustable guration: Nozzle/Full bady Flow Control Lin Outlet Size 50 DN 80 DN	3 4000 (Full Bo Board Testing L Pacity: Flow Ca Bas Discharge and Fixed for Lift nited {BVL} Flow Area 508.7 mm ² 1256.6 mm ²	UV Dre, Modulating & Snap ab on April 15, 2015 pacity, K Mod. Pilot Orifice [designator] dia. [G1] 25.45 mm [J1] 40 mm	Acting Pilot, Air/ga Lift 10 mm 15 mm	(1000) (1000)	/23/2028 //23/2028 //////////////////////////////////	Designator	
Manufacturer Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure Des Blowdown Chara Flow Area Config Designed by: Bro Inlet Size 25 DN 40 DN 50 DN	Pressure Relief Valve Sec. UV at National E lishing Relieving Cap 0.729 Unitless /Gas; Certified: Air, C finition: Initial Audible acteristics: Adjustable guration: Nozzle/Full bady Flow Control Lir Outlet Size 50 DN 80 DN 80 DN	2 4000 (Full Bo board Testing L bacity: Flow Ca bacity: Flow Ca bacity: Flow Ca back and Fixed for Lift mited {BVL} Flow Area 508.7 mm ² 1256.6 mm ² 2030.8 mm ²	UV Dre, Modulating & Snap ab on April 15, 2015 pacity, K Mod. Pilot Orifice [designator] dia. [G1] 25.45 mm [J1] 40 mm [L1] 50.85 mm	Acting Pilot, Air/ga Lift 10 mm 15 mm 19 mm	Set Pressure Range	Media Air Air Air	Designator UV UV UV	
Manufacturer Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Bro Inlet Size 25 DN 40 DN 50 DN 80 DN	Pressure Relief Valve Sec. UV at National E lishing Relieving Cap 0.729 Unitless /Gas; Certified: Air, G finition: Initial Audible acteristics: Adjustable guration: Nozzle/Full bady Flow Control Lin Outlet Size 50 DN 80 DN 80 DN 100 DN	4000 (Full Boosting Leading Lea	UV ore, Modulating & Snap ab on April 15, 2015 pacity, K Mod. Pilot Orifice [designator] dia. [G1] 25.45 mm [J1] 40 mm [L1] 50.85 mm [P1] 80.05 mm	Lift 10 mm 15 mm 29 mm 29 mm	Set Pressure 1 29-6400 psi 1 29-6170 psi 1 29-6170 psi 1 29-3705 psi 1	/23/2028 //23/2028 //////////////////////////////////	Designator UV	
Manufacturer Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Bro Inlet Size 25 DN 40 DN 50 DN 80 DN 100 DN	Pressure Relief Valve Sec. UV at National E lishing Relieving Cap).729 Unitless /Gas; Certified: Air, G finition: Initial Audible puration: Nozzle/Full bady Flow Control Lin Outlet Size 50 DN 80 DN 80 DN 100 DN 150 DN	4000 (Full Bo Board Testing Liverity: Flow Ca Board Fixed for Lift Inited {BVL} Flow Area 508.7 mm² 1256.6 mm² 2030.8 mm² 5032.8 mm² 8123.3 mm²	UV Dre, Modulating & Snap ab on April 15, 2015 pacity, K Mod. Pilot Crifice [designator] dia. [G1] 25.45 mm [J1] 40 mm [L1] 50.85 mm [P1] 80.05 mm [Q1] 101.7 mm	Lift 10 mm 15 mm 19 mm 29 mm 37 mm	Set Pressure 1 29-6400 psi 1 29-6170 psi 1 29-3705 psi 2	/23/2028 //23/2028 //////////////////////////////////	Designator UV	
Manufacturer Manufacturer Design Type [Pilot Operated F Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure Des Blowdown Charas Flow Area Config Designed by: Bro Inlet Size 25 DN 40 DN 50 DN 80 DN 100 DN 150 DN	Pressure Relief Valve Sec. UV at National E lishing Relieving Cap).729 Unitless /Gas; Certified: Air, O finition: Initial Audible puration: Nozzle/Full bady Flow Control Lin Outlet Size 50 DN 80 DN 80 DN 100 DN 150 DN 200 DN	 4000 (Full Bo Board Testing L bacity: Flow Ca Bas Discharge and Fixed for Lift BVL Flow Area 508.7 mm² 1256.6 mm² 2030.8 mm² 5032.8 mm² 8123.3 mm² 17695 mm² 	UV Dre, Modulating & Snap ab on April 15, 2015 pacity, K Mod. Pilot Orifice [designator] dia. [G1] 25.45 mm [J1] 40 mm [L1] 50.85 mm [P1] 80.05 mm [Q1] 101.7 mm [R1] 150.1 mm	Lift 10 mm 15 mm 19 mm 29 mm 37 mm 53 mm	Set Pressure 1 29-6400 psi 1 29-6170 psi 1 29-3705 psi 1 29-3705 psi 1 29-1480 psi 1	/23/2028 //23/2028 //////////////////////////////////	Designator UV UV	

BS&B PREMCO LATINOAMERICA S.A. DE C.V. (PLS)

Guadalupe, Nuevo Leon, 67180Mexico

Design Nan	ne: MBV, AN	IBV w. Dial ∖	Vac. Support	NBCer	:# 13060					
Manufacturer	/Assembler		Designat	ors	E	Expiration Date	e			
Manufacturer			UD		1	2/15/2027				
Design Type	Design Type									
[Rupture Disk Device] MBV, AMBV w. Dial Vac. Support HolderDesignation: N/A Capacity Tests: Sec. UD at BS & B Safety Systems, LLC on September 21, 2001 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 5.400 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: BS&B PREMCO LATINOAMERICA S.A. DE C.V. {PLS}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1.5 NPS		1.02 in ²			7-150 psi		UD			
10 NPS		41.1 in ²			0.25-125 psi		UD			
12 NPS		59.1 in ²			0.25-125 psi		UD			
14 NPS		88.4 in ²			0.25-100 psi		UD			
16 NPS		95.7 in ²			0.25-100 psi		UD			
18 NPS		124.3 in ²			0.25-100 psi		UD			
2 NPS		1.75 in ²			2-150 psi		UD			
2.5 NPS		3.05 in ²			2-150 psi		UD			
20 NPS		153.9 in²			0.25-50 psi		UD			
24 NPS		226.1 in ²			0.25-50 psi		UD			

Caliber Valve and Controls LLC (CLV)

4.2 in²

7.61 in²

11.61 in²

15.82 in²

25.87 in²

Nameplate Abbreviation: Caliber Valve & Controls

UD

UD

UD

UD

UD

1-150 psi

1-150 psi

1-150 psi

1-150 psi

0.5-150 psi

Lake Charles, LA 70615United States

3 NPS

4 NPS

5 NPS

6 NPS

8 NPS

Design Name:	78 (Pilot Operated)	NBCe	rt # 440	53
Manufacturer/Assen	nbler	Designators		Expiration Date
Assembler		UV		01/08/2027

[Pilot Operated Pressure Relief Valve] 78 (Pilot Operated) Capacity Tests: Sec. UV at National Board Testing Lab on August 5, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Nozzle/Full Lift

Designed by: TRILLIUM Flow Technologies - France SAS {SAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.124 in ²	[D] 0.398 in	0.53 in	26.1-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.124 in ²	[D] 0.398 in	0.53 in	29-740 psi	Steam	UV
1-1.5 NPS	2 NPS	0.222 in ²	[E] 0.531 in	0.53 in	26.1-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.222 in ²	[E] 0.531 in	0.53 in	29-740 psi	Steam	UV
1-1.5 NPS	2 NPS	0.352 in ²	[F] 0.669 in	0.53 in	26.1-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.352 in ²	[F] 0.669 in	0.53 in	29-740 psi	Steam	UV
1.5-2 NPS	3 NPS	0.568 in ²	[G] 0.85 in	0.7 in	26.1-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.568 in ²	[G] 0.85 in	0.7 in	29-740 psi	Steam	UV
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.7 in	26.1-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.7 in	29-740 psi	Steam	UV
2-3 NPS	3,4 NPS	1.457 in ²	[J] 1.362 in	0.8 in	26.1-6250 psi	Air	UV
2-3 NPS	3,4 NPS	1.457 in ²	[J] 1.362 in	0.8 in	29-740 psi	Steam	UV
3 NPS	4 NPS	2.097 in ²	[K] 1.634 in	1.18 in	26.1-3750 psi	Air	UV
3 NPS	4 NPS	2.097 in ²	[K] 1.634 in	1.18 in	29-740 psi	Steam	UV
3-4 NPS	4,6 NPS	3.229 in ²	[L] 2.028 in	1.18 in	26.1-3750 psi	Air	UV
3-4 NPS	4,6 NPS	3.229 in ²	[L] 2.028 in	1.18 in	29-740 psi	Steam	UV
4 NPS	6 NPS	4.095 in ²	[M] 2.284 in	1.57 in	26.1-3750 psi	Air	UV
4 NPS	6 NPS	4.095 in ²	[M] 2.284 in	1.57 in	29-740 psi	Steam	UV
4 NPS	6 NPS	5.143 in ²	[N] 2.559 in	1.57 in	26.1-3750 psi	Air	UV
4 NPS	6 NPS	5.143 in ²	[N] 2.559 in	1.57 in	29-740 psi	Steam	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.57 in	26.1-3750 psi	Air	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.57 in	29-740 psi	Steam	UV
6 NPS	8 NPS	12.915 in ²	[Q] 4.055 in	2.16 in	26.1-3750 psi	Air	UV
6 NPS	8 NPS	12.915 in ²	[Q] 4.055 in	2.16 in	29-740 psi	Steam	UV
6 NPS	8 NPS	15.904 in ²	[R] 4.5 in	2.16 in	26.1-1500 psi	Air	UV
6 NPS	8 NPS	15.904 in ²	[R] 4.5 in	2.16 in	29-740 psi	Steam	UV
8-8 NPS	10 NPS	28.274 in ²	[T] 6 in	2.99 in	26.1-1500 psi	Air	UV
8-8 NPS	10 NPS	28.274 in²	[T] 6 in	2.99 in	29-740 psi	Steam	UV
Design Name	e: 9 Series			NBCert #	44019		
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	

UV

Assembler

05/18/2027

[Safety Relief Valve] 9 Series Capacity Tests: Sec. UV at National Board Testing Lab on July 24, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.823 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: TRILLIUM Flow Technologies - France SAS {SAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	0.5, 1 NPS	0.0438 in ²	0.236 in	0.07 in	15-4700 psi	Air	UV
0.5-0.75 NPS	0.5, 1 NPS	0.0438 in ²	0.236 in	0.07 in	15-2900 psi	Steam	UV
0.5-1 NPS	1 NPS	0.124 in ²	0.398 in	0.1 in	14.5-2900 psi	Steam	UV
0.5-1 NPS	1 NPS	0.124 in ²	0.398 in	0.1 in	14.5-4700 psi	Air	UV
0.75-1 NPS	1 NPS	0.222 in ²	0.531 in	0.13 in	14.5-2220 psi	Air	UV
0.75-1 NPS	1 NPS	0.222 in ²	0.531 in	0.13 in	14.5-2220 psi	Steam	UV
1-1.5 NPS	1.5 NPS	0.352 in ²	0.669 in	0.17 in	14.5-740 psi	Air	UV
1-1.5 NPS	1.5 NPS	0.352 in ²	0.669 in	0.17 in	14.5-740 psi	Steam	UV
1-1.5 NPS	1.5 NPS	0.568 in ²	0.85 in	0.21 in	14.5-285 psi	Air	UV
1-1.5 NPS	1.5 NPS	0.568 in ²	0.85 in	0.21 in	14.5-285 psi	Steam	UV

NBCert #

Manufacturer/Assembler	Designators	Expiration Date

Assembler	UV	01/08/2027

Design Type

[Relief Valve] P3, P4 (liquids)

Capacity Tests: Sec. UV, V at National Board Testing Lab on December 7, 1993

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.631 Unitless

Media - Test: Water/Liquid; Certified: Liquid

Set Pressure Definition: First Steady Stream

Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: TRILLIUM Flow Technologies - France SAS {SAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS		0.134 in ²	[D] 0.413 in	0.128 in	15-10000 psi	Water	UV
1-1.5 NPS		0.273 in ²	[E] 0.59 in	0.183 in	15-7500 psi	Water	UV
1.5 NPS		0.373 in ²	[F] 0.689 in	0.214 in	15-6000 psi	Water	UV
1.5-2 NPS		0.589 in ²	[G] 0.866 in	0.268 in	15-6000 psi	Water	UV
1.5-2 NPS		0.881 in²	[H] 1.059 in	0.328 in	15-5000 psi	Water	UV
2-3 NPS		1.457 in ²	[J] 1.362 in	0.422 in	15-3200 psi	Water	UV
3 NPS		2.097 in ²	[K] 1.634 in	0.506 in	15-3200 psi	Water	UV
3-4 NPS		3.284 in ²	[L] 2.045 in	0.634 in	15-2000 psi	Water	UV
4 NPS		4.093 in ²	[M] 2.283 in	0.708 in	15-2000 psi	Water	UV
4 NPS		4.987 in ²	[N] 2.52 in	0.781 in	15-1300 psi	Water	UV
4 NPS		7.032 in ²	[P] 2.992 in	0.94 in	15-1300 psi	Water	UV

6 NPS		12.914 in ²	[Q] 4.055 in	1.257 in	15-1000 psi	Water	UV			
6 NPS		15.267 in ²	[R] 4.409 in	1.477 in	15-500 psi	Water	UV			
8 NPS		28.126 in ²	[T] 5.984 in	1.88 in	15-500 psi	Water	UV			
Design Name	: P3, P4, Pt	5		NBCert #	\$ 92001					
Manufacturer/As	sembler		Designato	ors	Ex	piration Date				
Assembler			UV		01.	/08/2027				
Design Type										
[Safety Relief Valve] P3, P4, P5 Capacity Tests: Sec. UV at unknown lab on June 5, 1986 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.876 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: TRILLIUM Flow Technologies - France SAS {SAR}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS		0.134 in ²	[D] 0.413 in	0.128 in	15-10000 psi	Air	UV			
1-1.5 NPS		0.134 in ²	[D] 0.413 in	0.128 in	15-2900 psi	Steam	UV			
1-1.5 NPS		0.273 in ²	[E] 0.59 in	0.183 in	15-2900 psi	Steam	UV			
1-1.5 NPS		0.273 in ²	[E] 0.59 in	0.183 in	15-7500 psi	Air	UV			
1.5 NPS		0.373 in ²	[F] 0.689 in	0.214 in	15-2900 psi	Steam	UV			
1.5 NPS		0.373 in ²	[F] 0.689 in	0.214 in	15-6000 psi	Air	UV			
1.5-2 NPS		0.589 in ²	[G] 0.866 in	0.268 in	15-2900 psi	Steam	UV			
1.5-2 NPS		0.589 in ²	[G] 0.866 in	0.268 in	15-6000 psi	Air	UV			
1.5-2 NPS		0.881 in²	[H] 1.059 in	0.328 in	15-2900 psi	Steam	UV			
1.5-2 NPS		0.881 in ²	[H] 1.059 in	0.328 in	15-5000 psi	Air	UV			
2 NPS		1.457 in ²	[J] 1.362 in	0.422 in	15-2900 psi	Steam	UV			
2 NPS		1.457 in ²	[J] 1.362 in	0.422 in	15-3200 psi	Air	UV			
3 NPS		2.097 in ²	[K] 1.634 in	0.506 in	15-2900 psi	Steam	UV			
3 NPS		2.097 in ²	[K] 1.634 in	0.506 in	15-3200 psi	Air	UV			
3 NPS		3.284 in ²	[L] 2.045 in	0.634 in	15-2000 psi	Air	UV			
3 NPS		3.284 in ²	[L] 2.045 in	0.634 in	15-2000 psi	Steam	UV			
4 NPS		4.093 in ²	[M] 2.283 in	0.708 in	15-2000 psi	Air	UV			
4 NPS		4.093 in ²	[M] 2.283 in	0.708 in	15-2000 psi	Steam	UV			
4 NPS		4.987 in ²	[N] 2.52 in	0.781 in	15-1300 psi	Air	UV			
4 NPS		4.987 in ²	[N] 2.52 in	0.781 in	15-1300 psi	Steam	UV			
4 NPS		7.215 in ²	[P] 3.031 in	0.94 in	15-1300 psi	Air	UV			
4 NPS		7.215 in ²	[P] 3.031 in	0.94 in	15-1300 psi	Steam	UV			
6 NPS		12.914 in ²	[Q] 4.055 in	1.257 in	15-1000 psi	Air	UV			
6 NPS		12.914 in ²	[Q] 4.055 in	1.257 in	15-1000 psi	Steam	UV			
6 NPS		17.818 in ²	[R] 4.763 in	1.477 in	15-700 psi	Air	UV			
6 NPS		17.818 in ²	[R] 4.763 in	1.477 in	15-700 psi	Steam	UV			

8 NPS		28.871 in²	[T] 6.063 in	1.88 in	15-600 psi	Air	UV
8 NPS		28.871 in²	[T] 6.063 in	1.88 in	15-600 psi	Steam	UV
10 NPS		46.759 in ²	[V] 7.716 in	2.392 in	15-450 psi	Air	UV
10 NPS		46.759 in ²	[V] 7.716 in	2.392 in	15-450 psi	Steam	UV
12 NPS		70.108 in ²	[W] 9.448 in	2.93 in	15-450 psi	Air	UV
12 NPS		70.108 in ²	[W] 9.448 in	2.93 in	15-450 psi	Steam	UV
Design Name	e: STARFLO	W-V		NBCert ;	# 44110		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			V		01	/08/2027	
Design Type							
[Safety Valve] S Capacity Tests: S Method of Estab Certified Value: (Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: TF	TARFLOW-V Sec. UV, V at Nationa Ishing Relieving Cap 0.876 Unitless team; Certified: Stear finition: Pop acteristics: Adjustable guration: Nozzle/Full RILLIUM Flow Techno	al Board Testing bacity: Flow Ca n e (Dual Ring) Lift blogies - France	g Lab on April 26, 2017 pacity, K e SAS {SAR}	,			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2, 3 NPS	0.373 in ²	[F] 0.689 in	0.172 in	30-2250 psi	Steam	UV, V
1.5-2 NPS	3 NPS	0.589 in ²	[G] 0.8661 in	0.217 in	30-2250 psi	Steam	UV, V
1.5-2 NPS	3 NPS	0.996 in ²	[H] 1.126 in	0.281 in	30-2250 psi	Steam	UV, V
3 NPS	4 NPS	1.457 in ²	[J] 1.3622 in	0.341 in	30-2250 psi	Steam	UV, V
3 NPS	4, 6 NPS	1.667 in ²	[K] 1.457 in	0.364 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	2.758 in ²	[L] 1.874 in	0.469 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	3.983 in ²	[M] 2.252 in	0.563 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	5.303 in ²	[N] 2.5984 in	0.65 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	7.069 in ²	[P] 3 in	0.75 in	30-2250 psi	Steam	UV, V
6 NPS	8 NPS	10.148 in ²	[Q] 3.594 in	0.902 in	30-1494 psi	Steam	UV, V
6 NPS	8, 10 NPS	14.173 in ²	[R] 4.248 in	1.062 in	30-1494 psi	Steam	UV, V
8 NPS	10 NPS	23.997 in ²	[T] 5.528 in	1.382 in	30-740 psi	Steam	UV, V
10 NPS	14 NPS	38.485 in ²	[V] 7 in	1.75 in	30-740 psi	Steam	UV, V
12 NPS	2x12 NPS	55.438 in ²	[W] 8.402 in	2.1 in	30-740 psi	Steam	UV, V
Design Name	e [.] STARFLO	W-V (Restr	ricted Lift)	NBCert	# 44121		

Manufacturer/Assembler	Designators	Expiration Date
Assembler	V	05/18/2027

[Safety Valve] STARFLOW-V (Restricted Lift) Capacity Tests: Sec. UV, V at National Board Testing Lab on April 27, 2017 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.876 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Restricted Lift

Designed by: TRILLIUM Flow Technologies - France SAS {SAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2, 3 NPS	0.373 in ²	[F] 0.689 in	0.095 in	30-2250 psi	Steam	UV, V
1.5-2 NPS	3 NPS	0.589 in ²	[G] 0.8661 in	0.119 in	30-2250 psi	Steam	UV, V
1.5-2 NPS	3 NPS	0.996 in ²	[H] 1.126 in	0.155 in	30-2250 psi	Steam	UV, V
3 NPS	4 NPS	1.457 in ²	[J] 1.3622 in	0.187 in	30-2250 psi	Steam	UV, V
3 NPS	4, 6 NPS	1.667 in ²	[K] 1.457 in	0.2 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	2.758 in ²	[L] 1.874 in	0.258 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	3.983 in ²	[M] 2.252 in	0.31 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	5.303 in ²	[N] 2.5984 in	0.357 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	7.069 in ²	[P] 3 in	0.413 in	30-2250 psi	Steam	UV, V
6 NPS	8 NPS	10.148 in ²	[Q] 3.594 in	0.496 in	30-1494 psi	Steam	UV, V
6 NPS	8, 10 NPS	14.173 in ²	[R] 4.248 in	0.584 in	30-1494 psi	Steam	UV, V
8 NPS	10 NPS	23.997 in ²	[T] 5.528 in	0.76 in	30-740 psi	Steam	UV, V
10 NPS	14 NPS	38.485 in ²	[V] 7 in	0.963 in	30-740 psi	Steam	UV, V
12 NPS	2x12 NPS	55.438 in²	[W] 8.402 in	1.155 in	30-740 psi	Steam	UV, V

Design Name: Starsteam V Series (Res. Lift)

NBCert #

92045

Expiration Date

05/18/2027

Manufacturer/Assembler	Designators

V

Assembler

Design Type

[Safety Valve] Starsteam V Series (Res. Lift) Capacity Tests: Sec. UV, V at National Board Testing Lab on August 6, 2012 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Restricted Lift Designed by: TRILLIUM Flow Technologies - France SAS {SAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	3 NPS	0.996 in ²	[1] 1.125 in	0.156 in	15-6525 psi	Steam	UV, V
2 NPS	3 NPS	1.667 in ²	[2] 1.456 in	0.201 in	15-6525 psi	Steam	UV, V
2.5 NPS	6 NPS	2.758 in ²	[3] 1.874 in	0.258 in	15-6525 psi	Steam	UV, V
3 NPS	6 NPS	3.983 in ²	[4] 2.251 in	0.309 in	15-6525 psi	Steam	UV, V
4 NPS	6 NPS	5.303 in ²	[5] 2.598 in	0.357 in	15-6525 psi	Steam	UV, V
4 NPS	6 NPS	7.069 in ²	[6] 3 in	0.414 in	15-3280 psi	Steam	UV, V
6 NPS	8 NPS	11.056 in ²	[Q] 3.571 in	0.517 in	15-2798 psi	Steam	UV, V

6 NPS	10 NPS	15.904 in ²	[R] 4.5 in	0.619 in	15-1580 psi	Steam	UV, V
6 NPS	10 NPS	19.299 in²	[RR] 4.957 in	0.681 in	15-1580 psi	Steam	UV, V
8 NPS	10 NPS	27.391 in ²	[T] 5.905 in	0.812 in	15-1190 psi	Steam	UV, V

Caltrol, Inc (CAT)

Nameplate Abbreviation: CALTROL _____BENICIA, CA

Benicia, CA 94510United States

Design Name	e: 243/249/44 49/8043/80	43/449/546, 049	/843/849/943/504	^{16/50} NBCert ;	# 01292		
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Assembler			UV		10	0/13/2027	
Design Type							
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: En	Pressure Relief Valve Sec. UV at Anderson lishing Relieving Cap 0.878 Unitless /Gas; Certified: Air, C finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full herson Automation S] 243/249/443 Greenwood & bacity: Flow Ca Gas, Steam Initial Audible I and Fixed for Lift olutions Final C	/449/546/843/849/943/ Co. on August 8, 1997 pacity, K Discharge Mod. Pilot Control US LP {AGC}	5046/5049/8043/8(049		
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-720 psi	Steam	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	15-10600 psi	Air	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	25-720 psi	Steam	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-720 psi	Steam	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-10600 psi	Air	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-720 psi	Steam	UV
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-10600 psi	Air	UV
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-720 psi	Steam	UV
6 NPS	8, 10 NPS	18.597 in ²	[R] 4.866 in	2.435 in	15-10600 psi	Air	UV
6 NPS	8, 10 NPS	18.597 in ²	[R] 4.866 in	2.435 in	15-720 psi	Steam	UV
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-10600 psi	Air	UV
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-720 psi	Steam	UV
Design Name	e: 253/259/45 53/8059	53/459/853	/859/953/959/505	^{59/80} NBCert ;	# 01304		
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Assembler			UV		10	0/13/2027	

[Pilot Operated Pressure Relief Valve] 253/259/453/459/853/859/953/959/5059/8053/8059 Capacity Tests: Sec. UV at unknown lab on July 31, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.627 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.205 in ²	[D] 0.674 in	0.079 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-15000 psi	Air	UV
1.5 NPS	2, 3 NPS	0.831 in ²	[G] 1.078 in	0.241 in	15-10600 psi	Air	UV
2 NPS	3 NPS	0.85 in ²	[G] 1.38 in	0.191 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.312 in ²	[H] 1.38 in	0.295 in	15-15000 psi	Air	UV
3 NPS	4 NPS	3.043 in ²	[K] 2.055 in	0.461 in	15-10600 psi	Air	UV
3 NPS	3 NPS	2.132 in ²	[J] 2.055 in	0.323 in	15-10600 psi	Air	UV
4 NPS	6 NPS	4.729 in ²	[L] 3.12 in	0.477 in	15-10600 psi	Air	UV
4 NPS	6 NPS	5.959 in ²	[M] 3.12 in	0.601 in	15-10600 psi	Air	UV
4 NPS	6 NPS	7.188 in ²	[N] 3.12 in	0.725 in	15-10600 psi	Air	UV
6 NPS	8, 10 NPS	18.294 in ²	[Q] 4.866 in	1.185 in	15-10600 psi	Air	UV

Design Name:

Manufacturer/Assembler

.59/853/859/953/959/5059 (Liqu

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Designators	Expiration Date

Assembler UV 01/26/2028

Design Type

[Pilot Operated Pressure Relief Valve] 453/459/853/859/953/959/5059 (Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.491 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	UV
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	V
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	UV
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	V
1.5 NPS	2, 3 NPS	0.911 in ²	[G] 1.078 in	0.264 in	15-7600 psi	Water	UV
1.5 NPS	2, 3 NPS	0.911 in²	[G] 1.078 in	0.264 in	15-7600 psi	Water	V
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	V
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	V

3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	UV
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	V
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	UV
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	V
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	UV
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	V
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	UV
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	V
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	UV
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	V
6 NPS	8, 10 NPS	15.885 in ²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	UV
6 NPS	8, 10 NPS	15.885 in²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	V
Design Name	e: 81, 81P, 83	3, 86		NBCert ;	# 01089		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			UV		01	/26/2028	
Design Type							
Method of Estab Certified Value: (Media - Test: Air	Sec. UV at Phillips Pe lishing Relieving Cap).816 Unitless r/Gas, Steam; Certifie	etroleum on Ju bacity: Flow Ca ed: Air, Gas, St	iy 8, 1965 pacity, K eam				
Set Pressure De Blowdown Chara Flow Area Config Designed by: En	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So	e Lift olutions Final (Control US LP {AGC}				
Set Pressure De Blowdown Chara Flow Area Config Designed by: En	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size	e Lift olutions Final (Flow Area	Control US LP {AGC} Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size .75 - 2 NPS	Eift Solutions Final (Flow Area 0.012 in ²	Control US LP {AGC} Orifice [designator] dia. [-2] 0.125 in	Lift 0.05 in	Set Pressure Range 20-10000 psi	Media Air	Designator UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS 0.5-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS	Lift olutions Final O Flow Area 0.012 in ² 0.028 in ²	Control US LP {AGC} Orifice [designator] dia. [-2] 0.125 in [-3] 0.188 in	Lift 0.05 in 0.06 in	Set Pressure Range 20-10000 psi 20-10000 psi	Media Air Air	Designator UV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS	Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ²	Control US LP {AGC} Orifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in	Lift 0.05 in 0.06 in 0.09 in	Set Pressure Range 20-10000 psi 20-10000 psi 20-10000 psi	Media Air Air Air	Designator UV UV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS	Lift olutions Final (Flow Area 0.012 in ² 0.028 in ² 0.049 in ²	Control US LP {AGC} Crifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in	Set Pressure Range Image 20-10000 psi Image 20-10000 psi Image 20-10000 psi Image 20-5000 psi Image	Media Air Air Air Air Air	Designator UV UV UV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS	Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ²	Control US LP {AGC} Crifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in	Set Pressure Range 20-10000 psi 20-10000 psi 20-10000 psi 20-5000 psi 20-720 psi	Media Air Air Air Air Air Steam	Designator UV UV UV UV NV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS .1 - 2.5 NPS	E Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.049 in ²	Control US LP {AGC} Crifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in	Set Pressure 20-10000 psi 20-10000 psi 20-10000 psi 20-10000 psi 20-2000 psi 20-5000 psi 20-5000 psi	Media Air Air Air Air Air Steam	Designator UV UV UV UV NV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS	E Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.11 in ²	Control US LP {AGC} Orifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-6] 0.375 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in	Set Pressure Range Image 20-10000 psi Image 20-5000 psi Image 20-5000 psi Image 20-9600 psi Image	Media Air Air Air Air Air Steam Air Air	Designator UV UV UV UV NV UV NV NV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS	Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.011 in ² 0.11 in ² 0.196 in ²	Control US LP {AGC} Crifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-6] 0.375 in [-8] 0.5 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in 0.12 in	Set Pressure 20-10000 psi 20-10000 psi 20-10000 psi 20-10000 psi 20-5000 psi 20-5000 psi 20-9600 psi 20-5000 psi	Media Air	Designator UV NV UV NV NV UV NV NV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.75-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation Sc Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS 1 - 2.5 NPS	Elift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.11 in ² 0.11 in ² 0.196 in ²	Orifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-6] 0.5 in [-8] 0.5 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in 0.12 in 0.16 in	Set Pressure 20-10000 psi 20-10000 psi 20-10000 psi 20-5000 psi 20-6000 psi	MediaAirAirAirAirAirAirAirAirAirAirAirAirAirAirAir	Designator UV UV UV UV UV UV NV UV NV UV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.75-2 NPS 0.75-2 NPS 0.75-2 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS 1 - 2.5 NPS	Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.11 in ² 0.11 in ² 0.196 in ² 0.196 in ²	Control US LP {AGC} Crifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-6] 0.375 in [-8] 0.5 in [-8] 0.5 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in 0.12 in 0.16 in 0.16 in	Set Pressure 20-10000 psi 20-10000 psi 20-10000 psi 20-10000 psi 20-5000 psi 20-5000 psi 20-9600 psi 20-5000 psi	MediaAir <td>Designator UV UV UV UV UV UV UV NV UV NV UV UV</td>	Designator UV UV UV UV UV UV UV NV UV NV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.5-2 NPS 0.75-2 NPS 0.75-2 NPS 0.75-2 NPS 1.5 NPS	finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS .1 - 2.5 NPS 1 - 2.5 NPS 2 NPS	E Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.11 in ² 0.11 in ² 0.196 in ² 0.196 in ² 0.196 in ²	Control US LP {AGC} Crifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-6] 0.375 in [-8] 0.5 in [-8] 0.5 in [-8] 0.5 in [F] 0.625 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in 0.12 in 0.16 in 0.16 in 0.28 in	Set Pressure 20-10000 psi 20-10000 psi 20-10000 psi 20-10000 psi 20-5000 psi 20-5000 psi 20-9600 psi 20-5000 psi 20-9000 psi 20-5000 psi 20-720 psi 20-5000 psi 20-700 psi 20-5000 psi 20-720 psi 20-720 psi 20-4040 psi	MediaAir	Designator UV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En Des Designed by: En Des Des Des Des Des Des Des	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 2 NPS 2 NPS 2-3 NPS	Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.11 in ² 0.11 in ² 0.196 in ² 0.196 in ² 0.196 in ² 0.307 in ²	Control US LP {AGC} Orifice (designator) dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-6] 0.5 in [-8] 0.5 in [-8] 0.5 in [-8] 0.5 in [-8] 0.5 in [-9] 0.625 in [-1] 0.625 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in 0.12 in 0.16 in 0.16 in 0.28 in 0.34 in	Set Pressure 20-10000 psi 20-10000 psi 20-10000 psi 20-10000 psi 20-5000 psi 20-6000 psi 20-720 psi 20-6000 psi	MediaAir	Designator UV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En Des Designed by: En Des Des Des Des Des Des Des	Anticipation: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation Sa Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 2 NPS 2 NPS 2-3 NPS	Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.11 in ² 0.11 in ² 0.196 in ² 0.196 in ² 0.196 in ² 0.307 in ² 0.503 in ²	Orifice (designator) dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-6] 0.5 in [-8] 0.5 in [-9] 0.625 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in 0.12 in 0.12 in 0.16 in 0.16 in 0.16 in 0.16 in 0.16 in 0.34 in	Set Pressure 20-10000 psi 20-10000 psi 20-10000 psi 20-10000 psi 20-2000 psi 20-5000 psi 20-5000 psi 20-5000 psi 20-5000 psi 20-5000 psi 20-5000 psi 20-6000 psi 20-720 psi 20-720 psi 20-720 psi 20-720 psi 20-720 psi 20-720 psi	MediaAir <td>Designator UV UV</td>	Designator UV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En Des Designed by: En Des Des Des Des Des Des Des	finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation So Outlet Size .75 - 2 NPS .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS .75 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 2 NPS 2 NPS 2-3 NPS 3 NPS	Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.11 in ² 0.11 in ² 0.196 in ² 0.196 in ² 0.196 in ² 0.307 in ² 0.503 in ² 0.503 in ²	Control US LP {AGC} Orifice [designator] dia. [-2] 0.125 in [-3] 0.188 in [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-6] 0.5 in [-8] 0.5 in [-9] 0.8 in [-1] 1 in	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in 0.12 in 0.12 in 0.16 in 0.16 in 0.16 in 0.34 in 0.34 in 0.34 in	Set Pressure 20-10000 psi 20-10000 psi 20-10000 psi 20-10000 psi 20-5000 psi 20-5000 psi 20-9600 psi 20-5000 psi 20-9600 psi 20-720 psi	MediaAir	Designator UV UV UV UV UV NV NV UV NV UV UV
Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS 0.75-2 NPS 0.75-2 NPS 1.5 NPS 1.5 NPS 1.5-2 NPS	Antipition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size .75 - 2 NPS .75 - 2.5 NPS .75 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 1 - 2.5 NPS 2 NPS 2 NPS 2-3 NPS 3 NPS 3 NPS	E Lift olutions Final O Flow Area 0.012 in ² 0.028 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.049 in ² 0.11 in ² 0.11 in ² 0.196 in ² 0.196 in ² 0.196 in ² 0.307 in ² 0.503 in ² 0.503 in ² 1.287 in ²	Control US LP {AGC}	Lift 0.05 in 0.06 in 0.09 in 0.09 in 0.09 in 0.12 in 0.12 in 0.16 in 0.16 in 0.16 in 0.28 in 0.34 in 0.34 in 0.34 in	Set Pressure 20-10000 psi 20-10000 psi 20-10000 psi 20-5000 psi 20-5000 psi 20-5000 psi 20-9600 psi 20-5000 psi 20-9600 psi 20-5000 psi 20-9600 psi 20-5000 psi 20-9000 psi 20-720 psi	MediaAirAirAirAirSteamAirAirAirAirAirSteamAirSteamAir	Designator UV UV UV UV UV UV UV UV NV UV VV UV UV

Design Name	e: 81P (Liqui	ds)		NBCert ;	# 01102		
Manufacturer/A	ssembler		Designate	ors	E	piration Date	•
Assembler			UV		01	/26/2028	
Design Type							
[Relief Valve] 8 Capacity Tests: : Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	1P (Liquids) Sec. NV, UV, V at Cro Ilishing Relieving Cap 0.720 Unitless 'ater/Liquid; Certified: afinition: 93% of pop acteristics: Fixed guration: Nozzle/Full nerson Automation S	osby Valve, LL pacity: Flow Ca Liquid Lift olutions Final (C on November 26, 19 pacity, K Control US LP {AGC}	85			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-5000 psi	Water	NV
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-6250 psi	Water	UV, V
0.75-2 NPS	1 - 2 NPS	0.11 in²	[-6] 0.375 in	0.13 in	50-6000 psi	Water	UV, V
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-5000 psi	Water	NV
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-6000 psi	Water	UV, V
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	50-6000 psi	Water	UV, V
2-2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	50-1620 psi	Water	UV, V
Design Name	e: 900 Series	s (Liquid), 7	700, SNC	NBCert ;	# 15499		
Manufacturer/A	ecomblor					iration Data	
	Sempler		Designate	ors	E	Childhold Date	
Assembler			UV UV	ors	Ex 10)/13/2027	
Assembler Design Type	SSEIIDIEI	_	UV	ors	E) 10)/13/2027	
Assembler Design Type [Relief Valve] 90 Capacity Tests: 4 Method of Estable Certified Value: 4 Media - Test: W Set Pressure Des Blowdown Chara Flow Area Confin Designed by: Er	00 Series (Liquid), 77 Sec. NV, UV, V at Cro blishing Relieving Cap 0.661 Unitless ater/Liquid; Certified: afinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S	'00, SNC osby Valve, LL0 bacity: Flow Ca Liquid Stream Lift olutions Final (UV UV C on February 9, 1990 pacity, K Control US LP {AGC}	brs	E) 1(0/13/2027	
Assembler Design Type [Relief Valve] 90 Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confir Designed by: Er Inlet Size	00 Series (Liquid), 77 Sec. NV, UV, V at Cro blishing Relieving Cap 0.661 Unitless dater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size	00, SNC osby Valve, LL0 oacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area	UV C on February 9, 1990 pacity, K Control US LP {AGC} Orifice [designator] dia.	Lift	E3 10 Set Pressure Range	Media	Designator
Assembler Design Type [Relief Valve] 90 Capacity Tests: 4 Method of Estate Certified Value: 4 Media - Test: W Set Pressure Des Blowdown Chara Flow Area Confin Designed by: Er Inlet Size 0.5-1 NPS	00 Series (Liquid), 77 Sec. NV, UV, V at Cro blishing Relieving Cap 0.661 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS	00, SNC osby Valve, LL0 bacity: Flow Ca Liquid Stream Lift olutions Final 0 Flow Area 0.0551 in ²	UV UV C on February 9, 1990 pacity, K Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in	Lift 0.074 in	Set Pressure Range 15-10000 psi	Media Water	Designator
Assembler Design Type [Relief Valve] 90 Capacity Tests: 3 Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS	00 Series (Liquid), 77 Sec. NV, UV, V at Cro blishing Relieving Cap 0.661 Unitless 'ater/Liquid; Certified: ofinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS	00, SNC osby Valve, LL0 bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ²	Designato UV C on February 9, 1990 pacity, K Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in	Lift 0.074 in 0.074 in	E3 10 10 10 10 10 10 10 15-10000 psi	Media Water Water	Designator NV UV, V
Assembler Design Type [Relief Valve] 90 Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chars Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS	20 Series (Liquid), 77 Sec. NV, UV, V at Cro blishing Relieving Cap 0.661 Unitless finition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS	00, SNC osby Valve, LL0 bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ²	UV UV C on February 9, 1990 pacity, K Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#10] 0.265 in	Lift 0.074 in 0.074 in 0.106 in	E3 10	Media Water Water Water	Designator NV UV, V NV
Assembler Design Type [Relief Valve] 90 Capacity Tests: * Method of Estab Certified Value: W Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	00 Series (Liquid), 77 Sec. NV, UV, V at Cro blishing Relieving Cap 0.661 Unitless 'ater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS	00, SNC osby Valve, LL0 bacity: Flow Ca Liquid Stream Lift olutions Final 0 Flow Area 0.0551 in ² 0.0845 in ² 0.0845 in ²	Designate UV C on February 9, 1990 pacity, K Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in	Set Pressure - 15-10000 psi - 15-10000 psi - 15-10000 psi - 15-10000 psi -	Media Water Water Water Water Water	Designator NV UV, V NV UV, V NV UV, V
Assembler Design Type [Relief Valve] 90 Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: W Set Pressure De Blowdown Chara Flow Area Confit Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	200 Series (Liquid), 77 Sec. NV, UV, V at Cro blishing Relieving Cap 0.661 Unitless dater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS	00, SNC osby Valve, LL0 bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ²	Designate UV C on February 9, 1990 pacity, K Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#10] 0.328 in [#5] 0.328 in [#6] 0.398 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in	E3 E4 E5 E5	Media Water Water Water Water Water Water Water	Designator NV UV, V UV, V UV, V
Assembler Design Type [Relief Valve] 90 Capacity Tests: 3 Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	20 Series (Liquid), 77 Sec. NV, UV, V at Cro olishing Relieving Cap 0.661 Unitless 'ater/Liquid; Certified: 'ater/Liquid; Certified: acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS	00, SNC bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ²	Designato UV C on February 9, 1990 pacity, K Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in	Set Pressure I 15-10000 psi 1	Media Water Water Water Water Water Water Water Water Water Water	Designator UV, V UV, V NV UV, V
Assembler Design Type [Relief Valve] 90 Capacity Tests: 3 Method of Estable Certified Value: 0 Media - Test: W Set Pressure Designed Value: 0 Blowdown Chara Flow Area Confin Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1.1.5 NPS	200 Series (Liquid), 77 Sec. NV, UV, V at Cro blishing Relieving Cap 0.661 Unitless 'ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full merson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS	00, SNC baby Valve, LLO bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ²	Designato UV C on February 9, 1990 pacity, K Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#7] 0.529 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.128 in	Set Pressure 1 Set Pressure 1 15-10000 psi 1	Media Water Water Water Water Water Water Water Water Water Water Water	Designator NV UV, V NV UV, V NV
Assembler Design Type [Relief Valve] 90 Capacity Tests: Method of Estab Certified Value: U Media - Test: W Set Pressure De Blowdown Chars Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS 1-1.5 NPS	200 Series (Liquid), 77 Sec. NV, UV, V at Cro blishing Relieving Cap 0.661 Unitless 'ater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1.5 NPS 1.5 NPS	00, SNC bacity: Flow Ca Liquid Stream Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ²	Designate UV C on February 9, 1990 pacity, K Control US LP {AGC} Orifice [#10] 0.265 in [#10] 0.265 in [#10] 0.265 in [#10] 0.328 in [#5] 0.328 in [#6] 0.398 in [#7] 0.529 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.128 in 0.17 in	Set Pressure	Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator VV UV, V UV, V UV, V NV UV, V UV, V

1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	NV				
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV, V				
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	NV				
1.5 NPS	2.5 NPS	0.5674 in²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV, V				
Design Name	: 900 Series	, 7700, SN	C	NBCert #	\$ 15411						
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date					
Assembler			UV		10	/13/2027					
Design Type [Safety Relief Valve] 900 Series, 7700, SNC Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on February 14, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV				
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-2900 psi	Steam	NV, UV				
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Air	UV				
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-2900 psi	Steam	NV, UV				
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Air	UV				
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-2900 psi	Steam	NV, UV				
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-2900 psi	Steam	NV, UV				
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Air	UV				
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-2900 psi	Steam	NV, UV				
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Air	UV				
1.5 NPS	2.5 NPS	0.5674 in²	[#9] 0.85 in	0.274 in	15-2900 psi	Steam	NV, UV				
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Air	UV				
Design Name	H Series (H HCB, HCP, HSA, HSB	HCI, HSJ, H , HJO, HN, , HSC, HSF	ica, ha, hb, hc hna, hnb, hnf ?)	;, 9, HS, NBCert #	¢ 15006						
Manufacturer/As	ssembler		Designato	ors	Ex	piration Date					
Assembler			UV, V		10	/13/2027					
Design Type											
Design Type [Safety Valve] H Series (HCI, HSJ, HCA, HA, HB, HC, HCB, HCP, HJO, HN, HNA, HNB, HNP, HS, HSA, HSB, HSC, HSP) Capacity Tests: Sec. UV, V at unknown lab on September 1, 1939 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LB (ACC)											

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS	1.5 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-500 psi	Steam	UV, V
0.75 NPS	1.5 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-500 psi	Steam	UV, V
1-1.5 NPS	2 - 3 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-3100 psi	Steam	UV, V
1-2 NPS	2.5, 3 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-3100 psi	Steam	UV, V
1.5-2 NPS	3, 4, 6 NPS	0.785 in ²	[H] 1 in	0.25 in	15-5000 psi	Steam	UV, V
1.5 NPS	3 NPS	0.865 in ²	1.05 in	0.262 in	15-3100 psi	Steam	UV, V
1.5 NPS	3 NPS	0.994 in²	[H2] 1.125 in	0.281 in	15-3100 psi	Steam	UV, V
2-3 NPS	3, 4, 6 NPS	1.288 in ²	[J] 1.281 in	0.32 in	15-5000 psi	Steam	UV, V
2 NPS	4 NPS	1.431 in²	[J2] 1.35 in	0.338 in	15-3100 psi	Steam	UV, V
2.5-3 NPS	4, 6 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-6000 psi	Steam	UV, V
2.5 NPS	6 NPS	2.545 in ²	[K2] 1.8 in	0.45 in	15-6000 psi	Steam	UV, V
3-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.476 in	15-3100 psi	Steam	UV, V
3 NPS	6 NPS	3.341 in ²	[L2] 2.062 in	0.516 in	15-3100 psi	Steam	UV, V
3-4 NPS	6, 8 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-6000 psi	Steam	UV, V
3 NPS	6, 8 NPS	3.976 in ²	[M2] 2.25 in	0.563 in	15-6000 psi	Steam	UV, V
4 NPS	6 NPS	4.341 in ²	[N] 2.351 in	0.588 in	15-3100 psi	Steam	UV, V
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.712 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	7.07 in ²	[P2] 3 in	0.75 in	15-3100 psi	Steam	UV, V
6 NPS	8 NPS	11.045 in ²	[Q] 3.75 in	0.937 in	15-1500 psi	Steam	UV, V
6 NPS	8 NPS	12.25 in ²	[Q2] 3.95 in	0.988 in	15-3100 psi	Steam	UV, V
6 NPS	8, 10 NPS	16 in ²	[R] 4.513 in	1.128 in	15-3100 psi	Steam	UV, V
6 NPS	10 NPS	19.29 in²	[RR] 4.956 in	1.239 in	15-3100 psi	Steam	UV, V
8 NPS	10, 12 NPS	26 in ²	[T] 5.75 in	1.437 in	15-500 psi	Steam	UV, V
8 NPS	12, 14 NPS	28.274 in ²	6 in	1.5 in	15-2000 psi	Steam	UV, V
10 NPS	14 NPS	44.18 in ²	7.5 in	1.875 in	15-500 psi	Steam	UV, V
12 NPS	16 NPS	63.62 in ²	9 in	2.25 in	15-500 psi	Steam	UV, V
14 NPS	18 NPS	86.59 in²	10.5 in	2.625 in	15-500 psi	Steam	UV, V
16 NPS	18, 20 NPS	95.21 in²	11.01 in	2.753 in	15-500 psi	Steam	UV, V
16 NPS	18, 20 NPS	114.04 in ²	12.05 in	3.02 in	15-500 psi	Steam	UV, V
18 NPS	24 NPS	143.14 in ²	13.5 in	3.375 in	15-500 psi	Steam	UV, V
20 NPS	24 NPS	176.71 in²	15 in	3.75 in	15-500 psi	Steam	UV, V

Design Name: JLT/JLT-JDS (Liquids)

NBCert #

1509

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/13/2027

[Safety Relief Valve] JLT/JLT-JDS (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 5, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.656 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	NV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	NV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	NV
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	NV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	UV, V
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	NV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	UV, V
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	NV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	UV, V
3 NPS	4-6 NPS	2.109 in ²	1.639 in	0.632 in	15-3705 psi	Water	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	NV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	UV, V
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	NV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	UV, V
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	NV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	NV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	1.232 in	15-1500 psi	Water	UV, V
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Water	UV, V
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	NV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	UV, V
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	NV
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in²	[T2] 6.33 in	2.444 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	NV

JLT-JOS-RL/JLT-JBS-RL/JLT-JDS-RL NBCert # Certification 15095 Manufacturer/Assembler Designators **Expiration Date** Assembler UV 10/13/2027 Design Type [Safety Relief Valve] JLT-JOS-RL/JLT-JBS-RL/JLT-JDS-RL (Liquids) (Restricted lift version of Certification 15095) Capacity Tests: Sec. NV, UV, V at unknown lab on October 14, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.656 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC} Set Pressure Orifice **Inlet Size Outlet Size** Flow Area Lift Media Designator [designator] dia. Range NV 0.75-1.5 NPS 2 - 3 NPS 0.1244 in² 0.08 in 15-6170 psi Water [D] 0.398 in 0.75-1.5 NPS 2 - 3 NPS 0.1244 in² [D] 0.398 in 15-6170 psi Water UV, V 0.08 in 1-1.5 NPS 2 - 3 NPS 0.2214 in² [E] 0.531 in 0.082 in 15-6170 psi Water NV 1-1.5 NPS 2 - 3 NPS 0.2214 in² [E] 0.531 in 0.082 in 15-6170 psi Water UV, V 1-1.5 NPS 2 - 3 NPS 0.3473 in² [F] 0.665 in 0.103 in 15-6170 psi Water NV 1-1.5 NPS 2 - 3 NPS 0.3473 in² [F] 0.665 in 0.103 in 15-6170 psi Water UV, V 1.5-2 NPS 2.5, 3 NPS 0.5674 in² Water NV [G] 0.85 in 0.131 in 15-6170 psi 1.5-2 NPS 2.5, 3 NPS 0.5674 in² [G] 0.85 in 0.131 in 15-6170 psi Water UV, V 1.5-2 NPS 3 NPS 0.6249 in² 0.892 in 0.137 in 15-2500 psi Water NV 1.5-2 NPS 3 NPS 0.6249 in² 0.892 in 0.137 in 15-2500 psi Water UV, V 1.5-2 NPS 3 NPS 0.8874 in² [H] 1.063 in 15-3705 psi Water NV 0.164 in 1.5-2 NPS 3 NPS 0.8874 in² UV, V [H] 1.063 in 0.164 in 15-3705 psi Water 2-3 NPS 3, 4 NPS 1.453 in² 15-3705 psi Water NV [J] 1.36 in 0.21 in 1.453 in² Water UV, V 2-3 NPS 3, 4 NPS [J] 1.36 in 0.21 in 15-3705 psi 3 NPS 4, 6 NPS 2.076 in² [K] 1.626 in 0.251 in 15-3705 psi Water NV UV, V 3 NPS 4, 6 NPS 2.076 in² [K] 1.626 in 0.251 in 15-3705 psi Water Water NV 3-4 NPS 4, 6 NPS 3.221 in² [L] 2.025 in 0.313 in 15-3705 psi 3-4 NPS 4, 6 NPS 3.221 in² 0.313 in 15-3705 psi Water UV, V [L] 2.025 in 3-4 NPS 6 NPS 4.065 in² [M] 2.275 in 0.351 in 15-2220 psi Water NV 3-4 NPS 6 NPS 4.065 in² 15-2220 psi Water UV, V [M] 2.275 in 0.351 in 4 NPS 6 NPS 4.9 in² [N] 2.498 in 0.386 in 15-1480 psi Water NV 4 NPS 6 NPS 4.9 in² UV, V [N] 2.498 in 0.386 in 15-1480 psi Water 4 NPS 6 NPS 7.205 in² [P] 3.029 in 0.468 in 15-1480 psi Water NV

0.468 in

0.493 in

0.616 in

0.741 in

0.741 in

15-1480 psi

15-1500 psi

15-1480 psi

15-1480 psi

15-1480 psi

Water

Water

Water

Water

Water

UV, V

UV, V

UV, V

UV, V

NV

4 NPS

4 NPS

6 NPS

6 NPS

6 NPS

6 NPS

6 NPS

8 NPS

8, 10 NPS

8, 10 NPS

7.205 in²

7.997 in²

12.472 in²

18.065 in²

18.065 in²

[P] 3.029 in

[P2] 3.191 in

[Q] 3.985 in

[R] 4.796 in

[R] 4.796 in

8 NPS	10, 12 NPS	29.359 in ²	[T] 6.114 in	0.944 in	15-740 psi	Water	NV				
8 NPS	10, 12 NPS	29.359 in ²	[T] 6.114 in	0.944 in	15-740 psi	Water	UV, V				
Design Name	JLT-JOS-R ^{e:} (Restricted 15512)	RL/JLT-JBS I Lift version	-RL/JLT-JDS-RL n of Certification	NBCert i	¥ 01382						
Manufacturer/A	Manufacturer/Assembler Designators Expiration Date										
Assembler			UV		01/	/26/2028					
Design Type											
[Safety Relief Valve] JLT-JOS-RL/JLT-JBS-RL/JLT-JDS-RL (Restricted Lift version of Certification 15512) Capacity Tests: Sec. UV at unknown lab on October 13, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.870 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.08 in	15-6170 psi	Air	UV				
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.082 in	15-6170 psi	Air	UV				
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.103 in	15-6170 psi	Air	UV				
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.131 in	15-6170 psi	Air	UV				
1.5-2 NPS	3 NPS	0.6949 in ²	0.892 in	0.137 in	15-2500 psi	Air	UV				
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.164 in	15-3705 psi	Air	UV				
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.21 in	15-3705 psi	Air	UV				
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.251 in	15-3705 psi	Air	UV				
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.313 in	15-3705 psi	Air	UV				
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.351 in	15-2220 psi	Air	UV				
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.386 in	15-1480 psi	Air	UV				
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	0.468 in	15-1480 psi	Air	UV				
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	0.493 in	15-1500 psi	Air	UV				
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	0.616 in	15-1480 psi	Air	UV				
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.741 in	15-1480 psi	Air	UV				
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	0.944 in	15-740 psi	Air	UV				

Design Name: JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-

 Manufacturer/Assembler
 Designators
 Expiration Date

 Assembler
 UV
 10/13/2027

Design Type

[Safety Relief Valve] JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-E, 8400, AC/AB Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on April 1, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.865 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.121 in	15-15000 psi	Air	NV, UV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.121 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.151 in	15-2000 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.151 in	15-8490 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-15000 psi	Air	NV, UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-15000 psi	Air	NV, UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-2000 psi	Steam	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.265 in	15-15000 psi	Air	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.265 in	15-2000 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.331 in	15-15000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.331 in	15-2000 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-10000 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-2000 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-10000 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-2000 psi	Steam	NV, UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-1000 psi	Steam	NV, UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-3000 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-2000 psi	Steam	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-5000 psi	Air	NV, UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-2000 psi	Steam	NV, UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-5000 psi	Air	NV, UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-1480 psi	Steam	NV, UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-3000 psi	Air	NV, UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Air	NV, UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Steam	NV, UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.945 in	15-1480 psi	Steam	NV, UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.945 in	15-3000 psi	Air	NV, UV
6 NPS	8 NPS	11.045 in ²	3.75 in	1.243 in	15-1000 psi	Steam	NV, UV
6 NPS	8 NPS	11.045 in ²	3.75 in	1.243 in	15-3750 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Steam	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Air	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-1480 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-3000 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Air	NV, UV

	8, 10 NPS	18.065 in²	[R] 4.796 in	1.496 in	15-1480 psi	Steam	NV, UV			
8 NPS	10 NPS	18.254 in²	4.821 in	1.907 in	15-2250 psi	Air	NV, UV			
8 NPS	10 NPS	18.254 in²	4.821 in	1.907 in	15-2250 psi	Steam	NV, UV			
8 NPS	10 NPS	29.359 in²	[T] 6.114 in	1.907 in	15-740 psi	Air	NV, UV			
8 NPS	10 NPS	29.359 in²	[T] 6.114 in	1.907 in	15-740 psi	Steam	NV, UV			
8 NPS	10 NPS	31.47 in²	[T2] 6.33 in	1.974 in	15-740 psi	Air	NV, UV			
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Steam	NV, UV			
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Air	UV			
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Steam	UV			
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Air	UV			
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Steam	UV			
Design Name: JOS-E-RL/JBS-E-RL/JDS-E-RL (Restricted NBCert # 01045										
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date				
Assembler			UV		10.	/13/2027				
Design Type										
[Safety Relief Valve] JOS-E-RL/JBS-E-RL/JDS-E-RL (Restricted Lift version of cert 15208) Capacity Tests: Sec. UV at unknown lab on May 26, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.865 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}										
			Orifice		0.4 Days a sum					
Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.75-1.5 NPS	2 - 3 NPS	Flow Area 0.1244 in ²	[designator] dia. [D] 0.398 in	Lift 0.08 in	Set Pressure Range 15-15000 psi	Media Air	Designator UV			
0.75-1.5 NPS 0.75-1.5 NPS	2 - 3 NPS 2 - 3 NPS	Flow Area 0.1244 in ² 0.1244 in ²	[designator] dia. [D] 0.398 in [D] 0.398 in	Lift 0.08 in 0.08 in	Range 15-15000 psi 15-2000 psi	Media Air Steam	Designator UV UV			
0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS	2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	Flow Area 0.1244 in² 0.1244 in² 0.1244 in² 0.187 in²	[designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in	Lift 0.08 in 0.08 in 0.08 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi	Media Air Steam Steam	Designator UV UV UV			
0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS	2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	Flow Area 0.1244 in ² 0.1244 in ² 0.187 in ² 0.187 in ²	[designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-8490 psi	Media Air Steam Steam Air	Designator UV UV UV UV			
0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	2 - 3 NPS 2 - 3 NPS	Flow Area 0.1244 in ² 0.1244 in ² 0.187 in ² 0.2214 in ²	[designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-8490 psi 15-15000 psi	Media Air Steam Steam Air Air	Designator UV UV UV UV UV			
0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	2 - 3 NPS 2 - 3 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in²	[designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-8490 psi 15-15000 psi 15-2000 psi	Media Air Steam Steam Air Air Steam	Designator UV			
0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	2 - 3 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.2214 in² 0.3473 in²	[designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-8490 psi 15-15000 psi 15-2000 psi 15-15000 psi 15-2000 psi	Media Air Steam Steam Air Steam Air	Designator UV			
0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS	2 - 3 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.3473 in²	[designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-8490 psi 15-15000 psi 15-15000 psi 15-2000 psi	Media Air Steam Steam Air Steam Air Steam	Designator UV			
Inite Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS	2 - 3 NPS 2 - 3 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.3473 in² 0.3473 in² 0.5674 in²	[designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in [G] 0.85 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-490 psi 15-15000 psi 15-2000 psi 15-15000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi	Media Air Steam Steam Air Steam Air Steam Air	Designator UV			
Inite Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1.5-2 NPS	2 - 3 NPS 2 - 3 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.3473 in² 0.3473 in² 0.5674 in²	[designator] dia.[D] 0.398 in[D] 0.398 in0.488 in0.488 in[E] 0.531 in[E] 0.665 in[F] 0.665 in[G] 0.85 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-490 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi	Media Air Steam Steam Air Steam Air Steam Air Steam	Designator UV			
Inter Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1.5-2 NPS	2 - 3 NPS 3 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.2214 in² 0.3473 in² 0.5674 in² 0.5874 in²	[designator] dia. [D] 0.398 in [D] 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in [G] 0.85 in [G] 0.85 in [H] 1.063 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-3490 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-15000 psi	Media Air Steam Steam Air Steam Air Steam Air Steam	Designator UV			
Inter Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-5.0 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	2 - 3 NPS 3 NPS 3 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.3473 in² 0.3473 in² 0.5674 in² 0.8874 in²	[designator] dia. [D] 0.398 in [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in [G] 0.85 in [G] 0.85 in [H] 1.063 in [H] 1.063 in	Lift 0.08 in 0.08 in 0.09 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-3000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi	Media Air Steam Steam Air Steam Air Steam Air Steam Air Air	Designator UV			
Inter Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-5.2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	2 - 3 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.3473 in² 0.3473 in² 0.5674 in² 0.8874 in² 0.8874 in² 1.453 in²	[designator] dia. [D] 0.398 in [D] 0.398 in [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [G] 0.85 in [G] 0.85 in [H] 1.063 in [J] 1.36 in	Lift 0.08 in 0.08 in 0.09 in 0.099 in 0.127 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-4900 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi	Media Air Steam Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV			
Inter Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-52 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2.3 NPS 2-3 NPS	2 - 3 NPS 3 NPS 3 NPS 3 NPS 3 A NPS 3, 4 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.2214 in² 0.3473 in² 0.3473 in² 0.5674 in² 0.8874 in² 1.453 in²	[designator] dia.[D] 0.398 in[D] 0.398 in[D] 0.398 in0.488 in0.488 in[E] 0.531 in[E] 0.531 in[F] 0.665 in[G] 0.85 in[G] 0.85 in[H] 1.063 in[H] 1.36 in[J] 1.36 in[J] 1.36 in	Lift 0.08 in 0.08 in 0.09 in 0.099 in 0.127 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-2000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-2000 psi	Media Air Steam Steam Air Steam Air Steam Air Steam Air Steam Air Air	Designator UV			
Inter Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-5-2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 2-3 NPS 3 NPS	2 - 3 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.2214 in² 0.3473 in² 0.3473 in² 0.5674 in² 0.8874 in² 1.453 in² 1.453 in² 2.076 in²	[designator] dia. [D] 0.398 in [D] 0.398 in [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [I] 0.531 in [E] 0.531 in [E] 0.665 in [F] 0.665 in [G] 0.85 in [G] 0.85 in [H] 1.063 in [J] 1.36 in [J] 1.36 in [K] 1.626 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.09 in 0.099 in 0.127 in 0.127 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-3490 psi 15-15000 psi 15-2000 psi 15-15000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-2000 psi	Media Air Steam Air Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV			
Inter Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-5.2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS	2 - 3 NPS 3 NPS 3 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.2214 in² 0.3473 in² 0.3674 in² 0.8874 in² 1.453 in² 2.076 in²	[designator] dia.[D] 0.398 in[D] 0.398 in0.488 in0.488 in0.488 in0.531 in[E] 0.531 in[F] 0.665 in[G] 0.85 in[G] 0.85 in[G] 0.85 in[J] 1.063 in[J] 1.36 in[J] 1.36 in[K] 1.626 in[K] 1.626 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.09 in 0.099 in 0.127 in 0.127 in 0.152 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-10000 psi 15-10000 psi 15-2000 psi	MediaAirSteamAirAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamSteamAir	Designator UV			
Inter Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-5.2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS 3 NPS 4 NPS	2 - 3 NPS 3 NPS 3 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 6 NPS	Flow Area 0.1244 in² 0.1244 in² 0.187 in² 0.187 in² 0.2214 in² 0.2214 in² 0.3473 in² 0.3473 in² 0.3473 in² 0.3674 in² 0.8874 in² 1.453 in² 2.076 in² 2.076 in² 2.714 in²	[designator] dia.[D] 0.398 in[D] 0.398 in[D] 0.398 in0.488 in0.488 in0.488 in[E] 0.531 in[E] 0.531 in[E] 0.665 in[G] 0.85 in[G] 0.85 in[G] 0.85 in[J] 1.063 in[J] 1.36 in[J] 1.36 in[K] 1.626 in[K] 1.626 in[K] 1.626 in[K] 1.626 in[S] 0.85 in	Lift 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.08 in 0.09 in 0.099 in 0.127 in 0.127 in 0.152 in 0.152 in 0.152 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-2000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-2000 psi	MediaAirSteamSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamSteamSteamSteamSteamSteam	Designator UV UV			

3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.189 in	15-2000 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.189 in	15-5000 psi	Air	UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.213 in	15-2000 psi	Steam	UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.213 in	15-5000 psi	Air	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.234 in	15-1480 psi	Steam	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.234 in	15-3000 psi	Air	UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.255 in	15-2250 psi	Air	UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.255 in	15-2250 psi	Steam	UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.284 in	15-1480 psi	Steam	UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.284 in	15-3000 psi	Air	UV
6 NPS	8 NPS	11.045 in ²	3.75 in	0.373 in	15-1000 psi	Steam	UV
6 NPS	8 NPS	11.045 in ²	3.75 in	0.373 in	15-3750 psi	Air	UV
6 NPS	8 NPS	12.174 in ²	3.937 in	0.373 in	15-2250 psi	Air	UV
6 NPS	8 NPS	12.174 in ²	3.937 in	0.373 in	15-2250 psi	Steam	UV
6 NPS	10 NPS	12.236 in ²	3.947 in	0.449 in	15-2250 psi	Air	UV
6 NPS	10 NPS	12.236 in ²	3.947 in	0.449 in	15-2250 psi	Steam	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	0.373 in	15-1480 psi	Steam	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	0.373 in	15-3000 psi	Air	UV
6 NPS	8 NPS	15.288 in ²	4.412 in	0.424 in	15-2250 psi	Air	UV
6 NPS	8 NPS	15.288 in ²	4.412 in	0.424 in	15-2250 psi	Steam	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.449 in	15-1480 psi	Air	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.449 in	15-1480 psi	Steam	UV
8 NPS	10 NPS	18.254 in ²	4.821 in	0.572 in	15-2250 psi	Air	UV
8 NPS	10 NPS	18.254 in²	4.821 in	0.572 in	15-2250 psi	Steam	UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	0.572 in	15-740 psi	Air	UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	0.572 in	15-740 psi	Steam	UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	0.592 in	15-740 psi	Air	UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	0.592 in	15-740 psi	Steam	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	0.731 in	15-325 psi	Air	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	0.731 in	15-325 psi	Steam	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	0.933 in	15-325 psi	Air	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	0.933 in	15-325 psi	Steam	UV

Caltrol, Inc (THI)

Santa Fe Springs, CA 90670United States

Design Nam	e: 443/449/5 (Liquids)	46/843/849	/943/949/5046/5	049 NBCert	# 01337					
Manufacturer/A	Assembler		Designat	ors	E	xpiration Date	9			
Assembler			UV		0	7/25/2024				
Design Type										
[Pilot Operated Pressure Relief Valve] 443/449/546/843/849/943/949/5046/5049(Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.767 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.21 in	15-7600 psi	Water	UV			
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.51 in	15-7600 psi	Water	UV			
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.82 in	15-7600 psi	Water	UV			
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-7600 psi	Water	UV			
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.62 in	15-7600 psi	Water	UV			
6 NPS	8, 10 NPS	15.904 in ²	[R] 4.5 in	2.435 in	15-7600 psi	Water	UV			
8 NPS	10 NPS	28.274 in ²	[T] 6 in	3.12 in	15-7600 psi	Water	UV			

Cavagna Group Spa (CAV)

Nameplate Abbreviation: OMECA

Brescia, OTH, 25011Italy

Design Name	e: 1064			NBCert	# 6925	52			
Manufacturer/A	ssembler		Designat	ors		Expiration Date			
Manufacturer			UV			03/01/2028			
Design Type									
[Safety Relief Valve] 1064 Capacity Tests: Sec. UV at National Board Testing Lab on January 14, 2020 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average Certified Value:1356.0 SCFM; Certification Provisions: Cert. @ 20% OP Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Cavagna Group Spa {CAV}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1 NPS		0.368 in²	0.685 in	0.197 in	250-250 psi	Air	UV		

Design Name	e: 1128			NBCert	# 69128					
Manufacturer/A	ssembler		Designate	ors	E	piration Date				
Manufacturer			UV		03	8/01/2028				
Design Type										
[Safety Relief Valve] 1128 Capacity Tests: Sec. UV at National Board Testing Lab on July 12, 2002 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average Certified Value:1732.0 SCFM; Certification Provisions: Cert. @ 20% OP Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Cavagna Group Spa {CAV}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.75 NPS		268.2 mm²	0.787 in	10 mm	250-0 psi	Air	UV			
Design Name	e: 1130			NBCert	# 69140					
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date				
Manufacturer			UV		02	2/24/2026				
Design Type										
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 3 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confi Designed by: Ca	alve] 1130 Sec. UV at National E blishing Relieving Cap 934.0 SCFM; Certifio r/Gas; Certified: Gas efinition: Start-to-Leak acteristics: Fixed guration: Nozzle/Full avagna Group Spa {C	Board Testing L bacity: Flow Ca cation Provision c Lift CAV}	ab on June 25, 2002 pacity, 3 valve averag ns: Cert. @ 20% OP	e						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1.25 NPS	Top mm	716.3 mm²	1.224 in	10 mm	250-0 psi	Air	UV			
Design Name	e: 1135			NBCert	# 69151					
Manufacturer/A	ssembler		Designate	ors	E	piration Date				
Manufacturer			UV		12	2/05/2024				
Design Type										
[Safety Relief Valve] 1135 Capacity Tests: Sec. UV at National Board Testing Lab on June 25, 2002 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average Certified Value:967.00 SCFM; Certification Provisions: Cert. @ 20% OP Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Cavagna Group Spa {CAV}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1 NPS		157 mm²	14.7 mm	10 mm	250-0 psi	Air	UV			

Design Nam	e: 1162A			NBC	ert # 69218	8		
Manufacturer/A	Assembler		Designat	ors	I	Expiration Dat	e	
Manufacturer			UV		()3/01/2028		
Design Type [Safety Relief Va Capacity Tests: Method of Estab Certified Value:6 Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Ca	alve] 1162A Sec. UV at National I blishing Relieving Ca 57.00 SCFM r/Gas; Certified: Gas efinition: Start-to-Leal acteristics: Fixed guration: Nozzle/Full avagna Group Spa {0	Board Testing L pacity: Flow Ca k Lift CAV}	.ab on June 13, 2007 ipacity, 3 valve averag	e				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75 NPS					312-312 psi	Air	UV	
Design Nam	e: 700073			NBC	ert # 6908	3		
Manufacturer/A	Assembler		Designat	ors	I	Expiration Dat	e	
Manufacturer			UV		()6/26/2024		
[Safety Relief Va Capacity Tests: Method of Estak Certified Value:1 Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Ca	alvej 700073 Sec. UV at National I blishing Relieving Ca 1808.0 SCFM; Certifi r/Gas; Certified: Gas ofinition: Start-to-Leal acteristics: Fixed guration: Nozzle/Full avagna Group Spa {(Board Testing L pacity: Flow Ca cation Provision k Lift CAV}	ab on July 12, 2001 pacity, 3 valve averag ns: Cert. @ 20% OP	e				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75 NPS		283.4 mm²	19 mm	9 mm	250-0 psi	Air	UV	
Design Nam	e: PV19 (700)214)		NBC	ert # 6923	C		
Manufacturer/A	Assembler		Designat	ors	I	Expiration Dat	e	
Manufacturer			UV		()7/02/2024		
Design Type [Safety Relief Valve] PV19 (700214) Capacity Tests: Sec. UV at National Board Testing Lab on September 29, 2011 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average Certified Value:2051.0 SCFM; Certification Provisions: Cert. @ 20% OP Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Cavagna Group Spa {CAV}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75 NPS	Top NPS	283.4 mm²	0.748 in	10 mm	250 psi	Air	UV	

Design Name	e: PV24 (700	216)		NBCert	# 69241		
Manufacturer/A	ssembler		Designat	ors	E	Expiration Date	
Manufacturer			UV		C	07/03/2024	
Design Type							
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 3 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Ca	alve] PV24 (700216) Sec. UV at National E dishing Relieving Cap (158.0 SCFM; Certific r/Gas; Certified: Gas finition: Start-to-Leal acteristics: Fixed guration: Nozzle/Full avagna Group Spa {C	Board Testing L bacity: Flow Ca cation Provisior c Lift CAV}	ab on September 29, pacity, 3 valve averag ıs: Cert. @ 20% OP	2011 e			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	Top NPS	471.2 mm ²	0.965 in	10 mm	250 psi	Air	UV
Design Name	e: PV29 (700	217)		NBCert	# 69229	9	
Design Name Manufacturer/A	e: PV29 (700 ssembler)217)	Designat	NBCert	# 69229 E) Expiration Date	
Design Name Manufacturer/A Manufacturer	e: PV29 (700 Issembler	217)	Designat	NBCert	# 69229 E) Expiration Date)7/16/2024	
Design Name Manufacturer/A Manufacturer Design Type	e: PV29 (700 ssembler	217)	Designat UV	NBCert	# 69229 E) Expiration Date)7/16/2024	
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: 5 Method of Estab Certified Value:4 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Ca	e: PV29 (700 sssembler lishing Relieving Cap 656.0 SCFM; Certific r/Gas; Certified: Gas finition: Start-to-Leak acteristics: Fixed guration: Nozzle/Full avagna Group Spa {C	Board Testing L bacity: Flow Ca cation Provision c Lift CAV}	Designat UV ab on June 1, 2012 pacity, 3 valve averag is: Cert. @ 20% OP	NBCert ors	# 69229 E	Expiration Date	
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value:4 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Ca	e: PV29 (700 ssembler alve] PV29 (700217) Sec. UV at National B dishing Relieving Cap 656.0 SCFM; Certific r/Gas; Certified: Gas ofinition: Start-to-Lead acteristics: Fixed guration: Nozzle/Full avagna Group Spa {C Outlet Size	Board Testing L bacity: Flow Ca cation Provision c Lift CAV} Flow Area	Designat UV ab on June 1, 2012 pacity, 3 valve averag is: Cert. @ 20% OP	NBCert ors e Lift	# 69229 E C Set Pressure Range	Expiration Date	Designator

Curtiss Wright (Tianjin) Flow Control Co., Ltd. (FTC)

Tianjin, 301700People's Republic of China

Design Name:	2600 & 2600S	NBCer	t # 570	57
Manufacturer/Assem	ıbler	Designators		Expiration Date
Manufacturer		UV		06/21/2024

[Safety Relief Valve] 2600 & 2600S Capacity Tests: Sec. UV at Ohio State University (Robinson Laboratory) on June 11, 1972 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring)

Flow Area Configuration: Nozzle/Full Lift

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-2900 psi	Steam	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-5000 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-2900 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV
6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV
6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Air	UV

12 NPS	16 NPS	63.62 in²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV
16 NPS	18 NPS	104 in ²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Air	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Steam	UV
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV
20 NPS	24 NPS	176.7 in²	[Z] 15 in	4.5 in	15-750 psi	Air	UV
20 NPS	24 NPS	176.7 in²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV

Design Name: 2600L (Air & Steam)

NBCert #

Manufacturer UV 09/21/2027	

Design Type

[Safety Relief Valve] 2600L (Air & Steam) Capacity Tests: Sec. UV at Farris Engineering on March 5, 2004 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-2900 psi	Steam	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.206 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in²	[G] 0.844 in	0.295 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in²	[H] 1.054 in	0.369 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in²	[J] 1.35 in	0.473 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in²	[J] 1.35 in	0.473 in	15-6000 psi	Air	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-2900 psi	Steam	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-5000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-2900 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-3000 psi	Air	UV

4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Steam	UV
6 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.665 in	15-1500 psi	Air	UV
6 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.665 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.125 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.125 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.217 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV

Design Name: 2600L (Liquids)	NBCert # 570	68
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/21/2027

Design Type

[Relief Valve] 2600L (Liquids)

Capacity Tests: Sec. UV, V at National Board Testing Lab (Picaway) on January 29, 1985

Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.652 Unitless

Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream

Blowdown Characteristics: Fixed

Flow Area Configuration: Nozzle/Full Lift

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Water	UV, V
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-6000 psi	Water	UV, V
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.326 in	15-3600 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.407 in	15-2750 psi	Water	UV, V
2-3 NPS	2 - 4 NPS	1.43 in ²	[J] 1.35 in	0.521 in	15-2700 psi	Water	UV, V
3 NPS	4, 6 NPS	2.041 in ²	[K] 1.612 in	0.622 in	15-2200 psi	Water	UV, V
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.775 in	15-1500 psi	Water	UV, V
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.871 in	15-1100 psi	Water	UV, V
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.957 in	15-1000 psi	Water	UV, V
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.16 in	15-1000 psi	Water	UV, V
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.525 in	15-900 psi	Water	UV, V
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.837 in	15-600 psi	Water	UV, V
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.339 in	15-300 psi	Water	UV, V
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.47 in	15-300 psi	Water	UV, V

Design Nam	ne: 2700, 270	00S, 3700, 3	3700S	NBCer	t # 57237		
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	e
Manufacturer			UV		09	9/22/2027	
Design Type							
[Safety Relief V Capacity Tests: Method of Esta Certified Value: Media - Test: A Set Pressure D Blowdown Cha Flow Area Com Designed by: F	/alve] 2700, 2700S, : Sec. UV at Farris Er iblishing Relieving Ca : 0.878 Unitless Air/Gas, Steam; Certif Definition: Pop racteristics: Fixed figuration: Nozzle/Fu arris Engineering {Tf	3700, 3700S ngineering on S apacity: Flow Ca fied: Air, Gas, S II Lift FO}	eptember 14, 1994 apacity, K team				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Air	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-2900 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-10000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-2900 psi	Steam	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Air	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-2900 psi	Steam	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Air	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Air	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-2900 psi	Steam	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Air	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-2900 psi	Steam	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV

0.268 in

0.342 in

0.342 in

Designators

UV

15-4000 psi

15-2900 psi

15-3000 psi

Air

Steam

Expiration Date

09/23/2027

UV

UV

Manufacturer Design Type

Design Name:

Manufacturer/Assembler

3 NPS

3 NPS

[Relief Valve] 2700L, 3700L (Liquids)

3 NPS

4 NPS

4 NPS

Capacity Tests: Sec. UV at Farris Engineering on September 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.676 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

0.898 in²

1.47 in²

1.47 in²

[H] 1.069 in

[J] 1.368 in

[J] 1.368 in

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Water	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Water	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.089 in	15-10000 psi	Water	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Water	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Water	UV
1.5 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Water	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Water	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Water	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Water	UV
Design Name	e: 3800			NBCert ‡	\$ 57024		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			UV		09/	22/2027	
Design Type							
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	Pressure Relief Valve Sec. UV at TELEDYN lishing Relieving Cap 0.859 Unitless //Gas, Steam; Certifie finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full rris Engineering (TEC	e] 3800 NE FARRIS EN bacity: Flow Ca ed: Air, Gas, St Initial Audible E e and Fixed for Lift	GR on May 20, 1994 pacity, K eam Discharge Mod. Pilot				
0 ,	ine Engliseening (J _{					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Inlet Size	Outlet Size 2 NPS	Flow Area 0.15 in ²	Orifice [designator] dia. [D] 0.437 in	Lift 0.162 in	Set Pressure Range 15-10000 psi	Media Air	Designator UV
Inlet Size 1-1.5 NPS 1-1.5 NPS	Outlet Size 2 NPS 2 NPS	Flow Area 0.15 in ² 0.15 in ²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in	Lift 0.162 in 0.162 in	Set Pressure Range 15-10000 psi 15-1050 psi	Media Air Steam	Designator UV UV
Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS	Flow Area 0.15 in ² 0.15 in ² 0.225 in ²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [E] 0.535 in	Lift 0.162 in 0.162 in 0.198 in	Set Pressure Range 15-10000 psi 15-1050 psi 15-10000 psi	Media Air Steam Air	Designator UV UV UV
Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS	Flow Area 0.15 in ² 0.15 in ² 0.225 in ² 0.225 in ²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [E] 0.535 in [E] 0.535 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in	Set Pressure Range Image 15-10000 psi Image 15-1050 psi Image 15-10000 psi Image 15-1050 psi Image	Media Air Steam Air Steam	Designator UV UV UV UV
Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS	Flow Area 0.15 in ² 0.15 in ² 0.225 in ² 0.225 in ² 0.371 in ²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in	Set Pressure Range I 15-10000 psi I 15-1050 psi I 15-10000 psi I 15-1050 psi I 15-1050 psi I	Media Air Steam Air Steam Air	Designator UV UV UV UV UV
Inlet Size 1-1.5 NPS	Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS	Flow Area 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in	Set Pressure 15-10000 psi 15-1050 psi 15-10000 psi 15-10000 psi 15-1050 psi 15-1050 psi 15-10000 psi 15-10000 psi	Media Air Steam Air Steam Air Air	Designator UV
Inlet Size 1-1.5 NPS 1-2 NPS	Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS	Flow Area 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.359 in²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in	Set Pressure 15-10000 psi 15-1050 psi 15-10000 psi 15-10000 psi 15-1050 psi 15-10000 psi	Media Air Steam Air Steam Air Steam	Designator UV
Inlet Size 1-1.5 NPS 1-2 NPS	Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2, 3 NPS 2, 3 NPS	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in	Set Pressure 15-10000 psi 15-1050 psi	Media Air Steam Air Steam Air Steam Steam Air	Designator UV
Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-2 NPS 1-2 NPS 1.5-2 NPS	Outlet Size 2 NPS	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.559 in² 0.873 in²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in	Set Pressure 15-10000 psi 15-1050 psi	MediaAirSteamAirSteamAirSteamSteamAirSteamSteamAir	Designator UV
Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-2 NPS 1.52 NPS 1.52 NPS	Outlet Size 2 NPS 2 NPS <td>Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.559 in² 0.559 in² 0.873 in²</td> <td>Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in</td> <td>Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in</td> <td>Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-7000 psi 15-7000 psi</td> <td>MediaAirSteamAirSteamAirSteamAirSteamSteamAirAirAirSteamAirSteam</td> <td>Designator UV UV</td>	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.559 in² 0.559 in² 0.873 in²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in	Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-7000 psi 15-7000 psi	MediaAirSteamAirSteamAirSteamAirSteamSteamAirAirAirSteamAirSteam	Designator UV
Inlet Size 1-1.5 NPS 1-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-3 NPS	Outlet Size 2 NPS 2 NPS <td>Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 0.873 in² 1.43 in²</td> <td>Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [H] 1.35 in</td> <td>Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in</td> <td>Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-7000 psi 15-7000 psi 15-1050 psi</td> <td>MediaAirSteamAirSteamAirSteamAirSteamAirAirSteamAirSteamSteamSteam</td> <td>Designator UV UV</td>	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 0.873 in² 1.43 in²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [H] 1.35 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in	Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-7000 psi 15-7000 psi 15-1050 psi	MediaAirSteamAirSteamAirSteamAirSteamAirAirSteamAirSteamSteamSteam	Designator UV
Inlet Size 1-1.5 NPS 1-2 NPS 1.5-2 NPS 1.5-3 NPS 1.5-3 NPS	Outlet Size 2 NPS 2 NPS <td>Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 0.873 in² 1.43 in²</td> <td>Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [J] 1.35 in [J] 1.35 in</td> <td>Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in</td> <td>Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-7000 psi 15-7000 psi</td> <td>MediaAirSteamAirSteamAirSteamSteamAirSteamAirSteamAirSteamAirAirAirAirAirAirAirAirAirAirAirSteamAirAir</td> <td>Designator UV UV</td>	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 0.873 in² 1.43 in²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [J] 1.35 in [J] 1.35 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in	Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-7000 psi 15-7000 psi	MediaAirSteamAirSteamAirSteamSteamAirSteamAirSteamAirSteamAirAirAirAirAirAirAirAirAirAirAirSteamAirAir	Designator UV
Inlet Size 1-1.5 NPS 1-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-3 NPS 1.5-3 NPS 2-3 NPS	Outlet Size 2 NPS 2, 3 NPS 2, 3, 4 NPS 3, 4 NPS 3, 4 NPS	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 0.873 in² 1.43 in² 1.43 in² 2.042 in²	Orifice [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [J] 1.35 in [J] 1.35 in [K] 1.612 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in 0.5 in	Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-7000 psi 15-7000 psi 15-7000 psi 15-7000 psi 15-1050 psi 15-1050 psi	MediaAirSteamAirSteamAirSteamAirSteamSteamAirSteamAirSteamAirSteamAirSteamAirSteamSteamAirSteamSteamSteamSteam	Designator UV
Inlet Size 1-1.5 NPS 1-2 NPS 1-2 NPS 1.5-2 NPS 1.5-3 NPS 1.5-3 NPS 2-3 NPS 2-3 NPS	Outlet Size 2 NPS 2, 3 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 1.43 in² 2.042 in²	Orifice [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [E] 0.687 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [J] 1.35 in [J] 1.35 in [K] 1.612 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in 0.5 in 0.596 in	Set Pressure 15-10000 psi 15-1050 psi	MediaAirSteamAirSteamAirSteamSteamAirSteamAirAirSteamAirSteamAirSteamAirSteamAirSteamAirAirSteamAirSteamAirSteamAir	Designator UV
Inlet Size 1-1.5 NPS 1-2 NPS 1-2 NPS 1.5-2 NPS 1.5-3 NPS 1.5-3 NPS 2-3 NPS 2-3 NPS 3-4 NPS	Outlet Size 2 NPS 2, 3 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 1.43 in² 1.43 in² 2.042 in² 3.17 in²	Orifice [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [G] 0.844 in [J] 1.054 in [J] 1.35 in [J] 1.35 in [J] 1.35 in [K] 1.612 in [K] 1.612 in [L] 2.009 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in 0.5 in 0.596 in 0.596 in 0.743 in	Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-7000 psi 15-1050 psi	MediaAirSteamAirSteamAirSteamSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamSteamSteamSteam	Designator UV
Inlet Size 1-1.5 NPS 1-2 NPS 1-2 NPS 1.5-2 NPS 1.5-3 NPS 1.5-3 NPS 2-3 NPS 3-4 NPS	Outlet Size 2 NPS 2, 3 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 1.43 in² 1.43 in² 2.042 in² 3.17 in² 3.17 in²	Orifice [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [J] 1.35 in [J] 1.35 in [K] 1.612 in [K] 1.612 in [L] 2.009 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in 0.5 in 0.596 in 0.596 in 0.743 in	Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-7000 psi 15-7000 psi 15-1050 psi	MediaAirSteamAirSteamAirSteamSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamSteamAirSteamAirSteamAirSteamAir	Designator UV UV
Inlet Size 1-1.5 NPS 1-2 NPS 1-2 NPS 1.5-2 NPS 1.5-3 NPS 2-3 NPS 2-3 NPS 3-4 NPS 3-4 NPS	Outlet Size 2 NPS 2, 3 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 4, 6 NPS	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 0.873 in² 1.43 in² 2.042 in² 3.17 in² 3.42 in²	Orifice [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [H] 1.054 in [J] 1.35 in [J] 1.35 in [K] 1.612 in [K] 1.612 in [L] 2.009 in [L] 2.009 in [L] 2.088 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in 0.5 in 0.596 in 0.596 in 0.743 in 0.743 in 0.773 in	Set Pressure 15-10000 psi 15-1050 psi 15-7000 psi 15-1050 psi	MediaAirSteamAirSteamAirSteamSteamSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirAirSteamAirSteamSteamSteam	Designator UV UV
Inlet Size 1-1.5 NPS 1-2 NPS 1-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-3 NPS 2-3 NPS 2-3 NPS 3-4 NPS 3-4 NPS 3-4 NPS 3-4 NPS	Outlet Size 2 NPS 2, 3 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS	Flow Area 0.15 in² 0.15 in² 0.15 in² 0.225 in² 0.225 in² 0.371 in² 0.371 in² 0.559 in² 0.873 in² 1.43 in² 2.042 in² 3.17 in² 3.42 in²	Orifice [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.437 in [D] 0.535 in [E] 0.535 in [F] 0.687 in [F] 0.687 in [G] 0.844 in [G] 0.844 in [G] 0.844 in [J] 1.054 in [J] 1.35 in [J] 1.35 in [K] 1.612 in [K] 1.612 in [L] 2.009 in [L] 2.088 in	Lift 0.162 in 0.162 in 0.198 in 0.198 in 0.254 in 0.254 in 0.312 in 0.312 in 0.39 in 0.39 in 0.5 in 0.5 in 0.596 in 0.596 in 0.743 in 0.773 in 0.773 in	Set Pressure 15-10000 psi 15-1050 psi	NediaAirSteamAirSteamAirSteamSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirAirSteamAirAirSteamAirSteamAir	Designator UV UV

Set Pressure

Orifice
3-4 NPS	4, 6 NPS	4 in ²	[M] 2.257 in	0.835 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Air	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-1050 psi	Steam	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Air	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-1050 psi	Steam	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Air	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-1050 psi	Steam	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Air	UV

 Design Name:
 3800FP
 NBCert #
 57035

 Manufacturer/Assembler
 Designators
 Expiration Date

 Manufacturer
 UV
 09/09/2027

Design Type

[Pilot Operated Pressure Relief Valve] 3800FP Capacity Tests: Sec. UV at Farris Engineering on April 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2, 3 NPS	0.719 in ²	[A] 0.957 in	0.354 in	15-10000 psi	Air	UV
1 NPS	2, 3 NPS	0.719 in ²	[A] 0.957 in	0.354 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in²	[1] 1.5 in	0.555 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-7000 psi	Air	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-1050 psi	Steam	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-7000 psi	Air	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-1050 psi	Steam	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-5000 psi	Air	UV
4 NPS	6 NPS	11.5 in²	[4] 3.826 in	1.416 in	15-1050 psi	Steam	UV
4 NPS	6 NPS	11.5 in²	[4] 3.826 in	1.416 in	15-4000 psi	Air	UV
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-2000 psi	Air	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-1050 psi	Steam	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-2000 psi	Air	UV
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1400 psi	Air	UV
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1050 psi	Steam	UV
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Air	UV

12 NPS	16 NPS	109.5 in²	[12] 11.81 in	4.37 in	15-800 psi	Steam	UV			
Design Name	e: 3800L, PC	L, PCM pilo	ots	NBCert #	# 57215					
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date				
Manufacturer			UV		0	9/22/2027				
Design Type	Design Type									
[Pilot Operated Pressure Relief Valve] 3800L, PCL, PCM pilots Capacity Tests: Sec. UV at Farris Engineering on February 4, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.782 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition(1): Pop; (3): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Water	UV			
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Water	UV			
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-10000 psi	Water	UV			
1.5-2 NPS	2,3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Water	UV			
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Water	UV			
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Water	UV			
3 NPS	4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Water	UV			
3-4 NPS	4,6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Water	UV			
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Water	UV			
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Water	UV			
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Water	UV			
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Water	UV			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Water	UV			
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Water	UV			
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Water	UV			

CV Techserv, Inc. (CVT)

Hastings, MN 55033United States

This Company Manufactures or Assembles:

Design Name:	Kunkle 264, 265, 266 & 267	NBCer	t # 362	67
Manufacturer/Assem	bler	Designators		Expiration Date
Assembler		UV		06/26/2025

Nameplate Abbreviation: CV Techserv

[Safety Relief Valve] Kunkle 264, 265, 266 & 267 Capacity Tests: Sec. UV at unknown lab on July 20, 1956 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.766 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.11 in²	0.375 in	0.115 in	15-2000 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.11 in²	0.375 in	0.115 in	15-3300 psi	Air	UV

Design Name: Kunkle 300,600

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	05/03/2025

Design Type

[Safety Valve] Kunkle 300,600

Capacity Tests: Sec. UV, V at unknown lab on February 10, 1961

Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless

Media - Test: Steam; Certified: Air, Gas, Steam

Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Dual Ring)

Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1000 psi	Air	UV
1.25 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1000 psi	Steam	V
1.25 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1000 psi	Steam	UV
1.25 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1000 psi	Air	UV
1.25 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1000 psi	Steam	V
1.25 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1000 psi	Steam	UV
1.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1000 psi	Air	UV
1.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1000 psi	Steam	V
1.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1000 psi	Steam	UV
1.5 NPS	2.5 NPS	1.287 in ²	[J] 1.28 in	0.32 in	15-1000 psi	Air	UV
1.5 NPS	2.5 NPS	1.287 in ²	[J] 1.28 in	0.32 in	15-1000 psi	Steam	V
1.5 NPS	2.5 NPS	1.287 in ²	[J] 1.28 in	0.32 in	15-1000 psi	Steam	UV
2 NPS	3 NPS	1.839 in ²	[K] 1.53 in	0.383 in	15-1000 psi	Air	UV
2 NPS	3 NPS	1.839 in ²	[K] 1.53 in	0.383 in	15-1000 psi	Steam	V
2 NPS	3 NPS	1.839 in ²	[K] 1.53 in	0.383 in	15-1000 psi	Steam	UV
2.5 NPS	4 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1000 psi	Air	UV
2.5 NPS	4 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1000 psi	Steam	V
2.5 NPS	4 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1000 psi	Steam	UV
3 NPS	4 NPS	3.597 in ²	[M] 2.14 in	0.535 in	15-1000 psi	Air	UV

3 NPS	4 NPS	3.597 in ²	[M] 2.14 in	0.535 in	15-1000 psi	Steam	V	
3 NPS	4 NPS	3.597 in ²	[M] 2.14 in	0.535 in	15-1000 psi	Steam	UV	
4 NPS	6 NPS	4.34 in ²	[N] 2.35 in	0.588 in	15-750 psi	Air	UV	
4 NPS	6 NPS	4.34 in ²	[N] 2.35 in	0.588 in	15-750 psi	Steam	V	
4 NPS	6 NPS	4.34 in ²	[N] 2.35 in	0.588 in	15-750 psi	Steam	UV	
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-750 psi	Air	UV	
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-750 psi	Steam	V	
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-750 psi	Steam	UV	
6 NPS	8 NPS	11.045 in ²	[Q] 3.75 in	0.938 in	15-600 psi	Air	UV	
6 NPS	8 NPS	11.045 in ²	[Q] 3.75 in	0.938 in	15-600 psi	Steam	V	
6 NPS	8 NPS	11.045 in ²	[Q] 3.75 in	0.938 in	15-600 psi	Steam	UV	
_								
Design Name	e: Kunkle 337			NBCert #	# 36278			
Manufacturer/A	ssembler		Designato	ors	E	piration Date	,	
Assembler			UV		11	/19/2024		
Design Type								
[Safety Relief Valve] Kunkle 337 Capacity Tests: Sec. UV at unknown lab on February 22, 1982 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.860 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Decigned by: Fuercean Automation Solutions Final Control US LB (ACC)								
Flow Area Config Designed by: Err	guration: Nozzle/Full	Lift olutions Final C	Control US LP {AGC}					
Flow Area Config Designed by: Err	guration: Nozzle/Full herson Automation So Outlet Size	Lift olutions Final C Flow Area	Control US LP {AGC} Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
Flow Area Config Designed by: Em Inlet Size	Outlet Size	Lift olutions Final C Flow Area 1.916 in ²	Control US LP {AGC} Orifice [designator] dia. 1.562 in	Lift 0.612 in	Set Pressure Range 15-60 psi	Media Air	Designator UV	
Flow Area Config Designed by: Em Inlet Size 2 NPS 2.5 NPS	Outlet Size 2 NPS 2.5 NPS	Lift olutions Final C Flow Area 1.916 in ² 2.786 in ²	Control US LP {AGC} Orifice [designator] dia. 1.562 in 1.883 in	Lift 0.612 in 0.755 in	Set Pressure Range 15-60 psi 15-60 psi	Media Air Air	Designator UV UV	
Flow Area Config Designed by: Em Inlet Size 2 NPS 2.5 NPS 3 NPS	Outlet Size 2 NPS 2.5 NPS 3 NPS	Lift olutions Final C Flow Area 1.916 in ² 2.786 in ² 4.037 in ²	Orifice [designator] dia. 1.562 in 1.883 in 2.267 in	Lift 0.612 in 0.755 in 0.91 in	Set Pressure Range15-60 psi15-60 psi15-60 psi	Media Air Air Air	Designator UV UV UV	
Flow Area Config Designed by: Em Inlet Size 2 NPS 2.5 NPS 3 NPS Design Name	Outlet Size 2 NPS 2.5 NPS 3 NPS 2.5 Kunkle 600	Lift olutions Final C Flow Area 1.916 in ² 2.786 in ² 4.037 in ²	Control US LP {AGC} Crifice [designator] dia. 1.562 in 1.883 in 2.267 in eries	Lift 0.612 in 0.755 in 0.91 in NBCert #	Set Pressure Range 15-60 psi 15-60 psi 15-60 psi 15-60 psi 4	Media Air Air Air	Designator UV UV UV	
Flow Area Config Designed by: Em Inlet Size 2 NPS 2.5 NPS 3 NPS Design Name Manufacturer/A	Outlet Size 2 NPS 2.5 NPS 3 NPS E: Kunkle 600	Lift olutions Final C Flow Area 1.916 in ² 2.786 in ² 4.037 in ²	Control US LP {AGC} Orifice [designator] dia. 1.562 in 1.883 in 2.267 in Ceries Designator	Lift 0.612 in 0.755 in 0.91 in NBCert #	Set Pressure Range 15-60 psi 15-60 psi 15-60 psi 15-60 psi 4 36324	Media Air Air Air Air	Designator UV UV UV UV	
Flow Area Config Designed by: Em Inlet Size 2 NPS 2.5 NPS 3 NPS Design Name Manufacturer/A Assembler	Outlet Size 2 NPS 2.5 NPS 3 NPS 2.5 Kunkle 600 ssembler	Lift olutions Final C Flow Area 1.916 in ² 2.786 in ² 4.037 in ²	Control US LP {AGC} Orifice [designator] dia. 1.562 in 1.883 in 2.267 in Ceries Designato UV, V	Lift 0.612 in 0.755 in 0.91 in NBCert 7	Set Pressure Range I 15-60 psi 15-60 psi	Media Air Air Air Air	Designator UV UV UV UV	
Inlet Size 2 NPS 2.5 NPS 3 NPS Design Name Manufacturer/A Assembler Design Type	Outlet Size 2 NPS 2.5 NPS 3 NPS e: Kunkle 600 ssembler	Lift olutions Final C Flow Area 1.916 in ² 2.786 in ² 4.037 in ²	Control US LP {AGC} Orifice [designator] dia. 1.562 in 1.883 in 2.267 in Cries Designato UV, V	Lift 0.612 in 0.755 in 0.91 in NBCert #	Set Pressure Range 15-60 psi 15-60 psi 15-60 psi 15-60 psi 4 36324 Ex 11	Media Air Air Air Air	Designator UV UV UV UV	
Inlet Size 2 NPS 2 NPS 2.5 NPS 3 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Establ Certified Value: C Media - Test: Sta Set Pressure Design Blowdown Chara Flow Area Config Designed by: Err	Outlet Size Outlet Size NPS SNPS SNPS SNPS Outlet 6000, 6252 Se Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Si	Lift olutions Final C Flow Area 1.916 in ² 2.786 in ² 4.037 in ² 00, 6252 Se 7 lab on March vacity: Flow Ca as, Steam (Dual Ring) Lift olutions Final C	Control US LP {AGC} Orifice [designator] dia. 1.562 in 1.883 in 2.267 in Prices Designato UV, V 1.24, 1982 pacity, K	Lift 0.612 in 0.755 in 0.91 in NBCert #	Set Pressure Range 15-60 psi 1 15-60 psi 1 15-60 psi 1 4 36324 5 1 1 1	Media Air Air Air Air (19/2024	Designator UV UV UV UV	
Inlet Size	Outlet Size 2 NPS 2 NPS 2 NPS 2.5 NPS 3 NPS Se: Kunkle 6000 ssembler unkle 6000, 6252 Se Sec. UV, V at unknown lishing Relieving Cap 0.878 Unitless earr; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full berson Automation Se Outlet Size	Lift olutions Final C Flow Area 1.916 in ² 2.786 in ² 4.037 in ² 00, 6252 Se 7, 6252 Se 7, 1ab on March bacity: Flow Ca as, Steam 6 (Dual Ring) Lift olutions Final C Flow Area	Control US LP {AGC} Orifice [designator] dia. 1.562 in 1.883 in 2.267 in 2.267 in Designato UV, V Designator 24, 1982 pacity, K Control US LP {AGC} Orifice [designator] dia.	Lift 0.612 in 0.755 in 0.91 in NBCert 7 ors	Set Pressure Range 15-60 psi 1 16-7 1 17 1 18 1 19 1 10 1 10 1 10 1 10 1 10 1 10 1 10 1 10 1 11 1 10 1 10 1 <	Media Air Air Air Air (19/2024	Designator UV UV UV UV UV Designator	
Inlet Size	Outlet Size 2 NPS 2.5 NPS 3 NPS 2.5 NPS 3 NPS C. Kunkle 6000 ssembler Unkle 6000, 6252 Se Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Si Outlet Size .75 NPS	Lift olutions Final C Flow Area 1.916 in ² 2.786 in ² 4.037 in ² 00, 6252 Se 7 iab on March bacity: Flow Ca as, Steam 6 (Dual Ring) Lift olutions Final C Flow Area 0.121 in ²	Control US LP {AGC} Orifice [designator] dia. 1.562 in 1.883 in 2.267 in 2.267 in Control US LP {AGC} Control US LP {AGC} Orifice [designator] dia. [D] 0.393 in	Lift 0.612 in 0.755 in 0.91 in NBCert 7 ors	Set Pressure I 15-60 psi I 15-60 psi I 15-60 psi I 15-60 psi I 4 36324 5 I 4 36324 5 I 5 I 6 I 7 I 8 I 10 I 11 I 12 I 13 I 14 I 15 I <tr td=""> 15</tr>	Media Air Air Air Air (19/2024 (19/2024 Media Air	Designator UV UV UV UV DV Designator	

0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Air	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	V
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Air	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	V
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Air	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	V
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Air	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	V
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Air	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	V
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Air	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	V
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Air	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	V
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Air	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	V
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Air	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	V
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Air	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	V
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Air	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	V
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	UV
6 NPS	8 NPS	17.6 in²	[R] 4.735 in	1.276 in	15-250 psi	Air	UV
6 NPS	8 NPS	17.6 in²	[R] 4.735 in	1.276 in	15-250 psi	Steam	V
6 NPS	8 NPS	17.6 in²	[R] 4.735 in	1.276 in	15-250 psi	Steam	UV
Design Name	E: Kunkle 910	J to 919		NBCert #	≠		
Manufacturer/A	ssembler		Designato	ors	E	piration Date	
Assembler			UV		05	5/01/2025	

[Safety Relief Valve] Kunkle 910 to 919 Capacity Tests: Sec. UV at unknown lab on May 19, 1969 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Steam	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Air	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Steam	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Air	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Steam	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Air	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Steam	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Air	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Steam	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Air	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	UV

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	U		

and	929	(Sect.	i Liquid)	

Manufacturer/Assembler	Designators	Expiration Date						
Assembler	UV	08/28/2025						
Design Type								
[Relief Valve] Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 92	29 (Sect. I Liquid)							
Capacity Tests: Sec. UV, V at unknown lab on May 8, 1985								
Method of Establishing Relieving Capacity: Flow Capacity, K								
Certified Value: 0.710 Unitless								

Media - Test: Water/Liquid; Certified: Liquid

Set Pressure Definition: First Steady Stream

Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75 , 1 NPS	0.1213 in ²	[D] 0.393 in	0.126 in	15-1400 psi	Water	UV, V
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.168 in	15-1000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.21 in	15-700 psi	Water	UV, V
1.25-2 NPS	2 NPS	0.553 in²	[G] 0.839 in	0.268 in	15-600 psi	Water	UV, V
1.5-2 NPS	2.5 NPS	0.864 in²	[H] 1.049 in	0.336 in	15-500 psi	Water	UV, V
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.429 in	15-500 psi	Water	UV, V

Design Name	e: Kunkle 92 water)	0, 921, 927	, Agco A (High Te	^{emp.} NBCert	# 36098			
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	e	
Assembler			V	V				
Design Type [Safety Valve] Kunkle 920, 921, 927, Agco A (High Temp. water) Capacity Tests: Sec. V at unknown lab on May 19, 1969 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator	
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Steam	V	
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Steam	V	
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Steam	V	
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Steam	V	
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Steam	V	
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	V	

Dowco Valve Company, Inc. (DIA)

Nameplate Abbreviation: Dowco

DeWitt, IA 52742United States

This Company Manufactures or Assembles:

Design Nam	ie: 2600 & 26	00S		NBCert	BCert # 57057					
Manufacturer/	Assembler		Designat	Designators			Expiration Date			
Assembler			UV	UV						
Design Type [Safety Relief Valve] 2600 & 2600S										
[Sarety Relief Valve] 2600 & 2600S Capacity Tests: Sec. UV at Ohio State University (Robinson Laboratory) on June 11, 1972 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-10000 psi	Air	UV			
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV			
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-10000 psi	Air	UV			
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV			

1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-2900 psi	Steam	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-5000 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-2900 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Air	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Air	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Steam	UV
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV
20 NPS	24 NPS	176.7 in²	[Z] 15 in	4.5 in	15-750 psi	Air	UV
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV

Design Nam	e: 2600L (Lic	quids)		NBCert	# 57068			
Manufacturer/A	Assembler		Designate	ors	E	xpiration Date		
Assembler			UV		0	7/17/2024		
Design Type [Relief Valve] 2600L (Liquids) Capacity Tests: Sec. UV, V at National Board Testing Lab (Picaway) on January 29, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.652 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Water	UV, V	
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-6000 psi	Water	UV, V	
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.206 in	15-5000 psi	Water	UV, V	
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.326 in	15-3600 psi	Water	UV, V	
1.5-2 NPS	3 NPS	0.873 in²	[H] 1.054 in	0.407 in	15-2750 psi	Water	UV, V	
2-3 NPS	2 - 4 NPS	1.43 in ²	[J] 1.35 in	0.521 in	15-2700 psi	Water	UV, V	
3 NPS	4, 6 NPS	2.041 in ²	[K] 1.612 in	0.622 in	15-2200 psi	Water	UV, V	
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.775 in	15-1500 psi	Water	UV, V	
4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.871 in	15-1100 psi	Water	UV, V	
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.957 in	15-1000 psi	Water	UV, V	
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.16 in	15-1000 psi	Water	UV, V	
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.525 in	15-900 psi	Water	UV, V	
6-8 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.837 in	15-600 psi	Water	UV, V	
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.339 in	15-300 psi	Water	UV, V	
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.47 in	15-300 psi	Water	UV, V	
Design Nam	e: 2700, 270	0S, 3700, 3	3700S	NBCert	# 57237	,		
Manufacturer/	Assembler		Designate	ors	E	xpiration Date		
Assembler			UV		0	7/17/2024		
Design Type								
[Safety Relief Valve] 2700, 2700S, 3700, 3700S Capacity Tests: Sec. UV at Farris Engineering on September 14, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	

0.5-1 NPS

.75, 1 NPS

0.038 in²

[B] 0.22 in

0.05 in

15-16000 psi

Air

UV

0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Air	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-2900 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-10000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-2900 psi	Steam	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Air	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-2900 psi	Steam	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Air	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Air	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-2900 psi	Steam	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Air	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-2900 psi	Steam	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-2900 psi	Steam	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Air	UV

Design Name: 2700L, 3700L (Liquids

NBCert #

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/17/2024

Design Type

[Relief Valve] 2700L, 3700L (Liquids)

Capacity Tests: Sec. UV at Farris Engineering on September 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.676 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Water	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Water	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.089 in	15-10000 psi	Water	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Water	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Water	UV
1.5 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Water	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Water	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Water	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Water	UV

Dresser International L.L.C. (DIU)

Dubai, 61302United Arab Emirates

This Company Manufactures or Assembles:

Design Name	e 1900, 1900 (Liquids)	J-30 1900-3	35 LA & DALA	NBCert #	4 18784				
Manufacturer/As	ssembler		Designate	ors	E	xpiration Date			
Manufacturer			UV		10)/03/2025			
Design Type									
Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V		
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V		
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V		
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V		
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V		
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V		
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V		
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V		
6-6 NPS	8 NPS	12.851 in²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V		
6-6 NPS	8, 10 NPS	18.604 in²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V		
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V		
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V		
Design Name	e: 1900, 1900)-30, 1900-	35	NBCert #	<i>‡</i> 18201				
Manufacturer/Assembler			Designate	Designators			Expiration Date		
Manufacturer			UV		10)/02/2025			

Nameplate Abbreviation: Dresser JA

[Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV

12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV				
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV				
Design Name: 19000 Series NBCert # 18706											
Manufacturer/Assembler Designators Expiration Date											
Manufacturer UV 07/17/2025											
Design Type											
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV				
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV				

2.162 in

15-300 psi

10 NPS

14 NPS

50.26 in²

[V] 8 in

NV, UV

Steam

Design Nam	ie: 19000 Sei	ries, Liquid		NBCer	t # 18717			
Manufacturer/	Assembler		Designat	tors	E	xpiration Dat	te	
Manufacturer			UV		1	0/02/2025		
Design Type								
[Relief Valve] 1 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Char Flow Area Conf Designed by: D	9000 Series, Liquid Sec. UV at Dresser, blishing Relieving Ca 0.673 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Full resser, LLC {DRJ}	Inc. on August pacity: Flow Ca I: Liquid v Stream I Lift	30, 1994 арасіtу, К					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV	
Design Nam	ie: 1900D-2,	1900-30D-2	2	NBCer	t # 18144			
Manufacturer/	Assembler		Designat	tors	E	xpiration Dat	te	
Manufacturer			UV		1	0/03/2025		
Design Type								
[Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	

Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV

Design Name: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 1

1-1.5 NPS

2 - 3 NPS

0.2279 in²

[E] 0.674 in

0.093 in

15-6250 psi

Water

Manufacturer/A	ssembler		Designat	ors		Expiration Date			
Manufacturer			UV			10/01/2025			
Design Type									
[Relief Valve] 19 Capacity Tests: 5 Method of Establ Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	000D-2, 1900-30D-2 Sec. NV, UV, V at Dre lishing Relieving Cap 3.256 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	LA & DALA (Lic esser, Inc. on Ju pacity: Flow Ca SID Liquid Stream .ift	ιuids) uly 12, 1995 pacity, Flow Factor						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V		
Design Name	e: 1900E-2, 1	1900-30E-2		NBCert	# 1816	66			
Manufacturer/A	ssembler		Designat	ors		Expiration Dat	е		
Manufacturer			UV			10/02/2025			
Design Type									
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	Ive] 1900E-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al /Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ}	30E-2 ser, Inc. on Aug pacity: Flow Ca ternate mediun ed: Air, Gas, Sto e (Single Ring) ift	ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSI <i>I</i> eam	Α					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV		
Design Name	e: 1900E-2, 1	1900-30E-2	LA & DALA (Lic	quids) NBCert	# 1876	62			
Manufacturer/A	ssembler		Designat	tors		Expiration Dat	е		
Manufacturer			UV			10/02/2025			
Design Type									
[Relief Valve] 19 Capacity Tests: 5 Method of Estab Certified Value: 5 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	000E-2, 1900-30E-2 L Sec. NV, UV, V at Dre lishing Relieving Cap 5.798 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	A & DALA (Liq esser, Inc. on Ju pacity: Flow Ca SID Liquid Stream ift	uids) uly 12, 1995 pacity, Flow Factor						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		

NV, UV, V

Design Nam	e: 19110M &	19110H (L	iquids)	NBCert	# 19077		
Manufacturer/A	Assembler		Designat	ors	E	xpiration Date	9
Manufacturer			UV		1	2/16/2027	
Design Type							
[Relief Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: De	9110M & 19110H (Lic Sec. NV, UV at Dress olishing Relieving Caj 2.264 GPM/SQ.RT. F /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full resser, LLC {DRJ}	quids) ser, Inc. on July pacity: Flow Ca PSID : Liquid Stream Lift	/ 29, 2010 apacity, Flow Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	290-5000 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	290-5000 psi	Water	NV
Design Nam	e: 2900 (39P	V & 39MV	pilots - Liquid)	NBCert	# 18874		
Manufacturer/A	Assembler		Designate	ors	E	xpiration Date	9
Manufacturer			UV		1	2/16/2027	
[Pilot Operated Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: Di	Pressure Relief Valve Sec. UV, V at Dresse blishing Relieving Cap 0.670 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full resser, LLC {DRJ}	e] 2900 (39PV er, Inc. on June pacity: Flow Ca : Liquid Stream Lift	& 39MV pilots - Liquid 25, 1999 apacity, K)			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	UV, V
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	UV, V
1.5-2 NPS	2.5 - 3 NPS	0.5849 in²	[G] 0.863 in	0.205 in	15-6250 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.395 in	15-3750 psi	Water	UV, V
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-6000 psi	Water	UV, V
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-6000 psi	Water	UV, V
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-3750 psi	Water	UV, V
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-2250 psi	Water	UV, V
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-2250 psi	Water	UV, V
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-2250 psi	Water	UV, V
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-1500 psi	Water	UV, V
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.738 in	15-1500 psi	Water	UV, V

8 NPS

10 NPS

30.21 in²

[T] 6.205 in

2.272 in

15-905 psi

UV, V

Water

8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Water	UV, V				
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.93 in	15-675 psi	Water	UV, V				
12 NPS	16 NPS	78.996 in²	[W] 10.029 in	3.675 in	15-535 psi	Water	UV, V				
Design Name	e: 2900 (39P	V & 39MV	pilots)	NBCert	# 18863						
Manufacturer/A	ssembler		Designate	ors	E	piration Date	;				
Manufacturer			UV		12	2/16/2027					
Design Type											
[Pilot Operated Pressure Relief Valve] 2900 (39PV & 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on June 25, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-4230 psi	Steam	UV				
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-7200 psi	Air	UV				
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-4230 psi	Steam	UV				
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	UV				
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	UV				
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-4230 psi	Steam	UV				
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	UV				
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	UV				
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3750 psi	Air	UV				
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2500 psi	Steam	UV				
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-6000 psi	Air	UV				
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2500 psi	Steam	UV				
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-6000 psi	Air	UV				
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2000 psi	Steam	UV				
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-3750 psi	Air	UV				
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	UV				
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-2250 psi	Air	UV				
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	UV				
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-2250 psi	Air	UV				

0.685 in

0.83 in

0.83 in

1.09 in

1.09 in

1.29 in

1.29 in

15-1600 psi

15-2250 psi

15-1700 psi

15-1500 psi

15-900 psi

15-1500 psi

15-905 psi

4 NPS

4 NPS

4 NPS

6 NPS

8 NPS

8 NPS

8 - 10 NPS

8 - 10 NPS

5.047 in²

7.417 in²

7.417 in²

12.85 in²

12.85 in²

18.6 in²

18.6 in²

[N] 2.535 in

[P] 3.073 in

[P] 3.073 in

[Q] 4.045 in

[Q] 4.045 in

[R] 4.867 in

[R] 4.867 in

UV

UV

UV

UV

UV

UV

UV

Steam

Steam

Steam

Steam

Air

Air

Air

8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Steam	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Steam	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-675 psi	Air	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-300 psi	Steam	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-535 psi	Air	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	UV

Design Name: 3900 (39PV, 39MV pilots)		NBCert # 18	3447
Manufacturer/Assembler	Designators		Expiration Date
Manufacturer	UV		12/16/2027
Design Type			
[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilo Capacity Tests: Sec. UV at Dresser, Inc. on May 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge	its)		

Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Air	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Air	UV

3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in²	3.701 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-750 psi	Steam	UV
8 NPS	10 NPS	30.21 in²	[T] 6.205 in	2 in	15-1500 psi	Air	UV
8 NPS	10 NPS	30.21 in²	[T] 6.205 in	2 in	15-1500 psi	Steam	NV
8 NPS	10 NPS	30.21 in²	[T] 6.205 in	2 in	15-1500 psi	Steam	UV
8 NPS	10, 12 NPS	44.18 in²	7.5 in	2 in	15-1500 psi	Air	UV
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-700 psi	Steam	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	UV
10 NPS	10-14 NPS	69.94 in ²	9.437 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-750 psi	Steam	UV

Design Name: 3900 (39PV, 39MV pilots, liquid)

NBCert

18458

Manufacturer/Assembler			Designators			Expiration Date					
Manufacturer				UV			12/16/2027				
Design Type											
[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots, liquid) Capacity Tests: Sec. UV at Dresser, Inc. on June 1, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.743 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}											
Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404	in	0.25 in	15-6250 psi	Water	NV			
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404	in	0.25 in	15-6250 psi	Water	UV			
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539	in	0.25 in	15-6250 psi	Water	NV			
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539	in	0.25 in	15-6250 psi	Water	UV			
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674	in	0.25 in	15-6250 psi	Water	NV			
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674	in	0.25 in	15-6250 psi	Water	UV			
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863	in	0.5 in	15-6250 psi	Water	NV			
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863	in	0.5 in	15-6250 psi	Water	UV			
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078	in	0.5 in	15-6250 psi	Water	NV			
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078	in	0.5 in	15-6250 psi	Water	UV			
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in		0.5 in	15-6250 psi	Water	NV			
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in		0.5 in	15-6250 psi	Water	UV			
1.5 NPS	2 NPS	1.621 in ²	1.437 in		0.25 in	15-6250 psi	Water	UV			
3 NPS	4 NPS	2.138 in ²	[K] 1.65 ir	ı	0.68 in	15-6250 psi	Water	NV			
3 NPS	4 NPS	2.138 in ²	[K] 1.65 ir	ı	0.68 in	15-6250 psi	Water	UV			
2 NPS	3 NPS	2.764 in ²	1.876 in		0.5 in	15-6250 psi	Water	UV			
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055	in	0.68 in	15-6250 psi	Water	NV			
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055	in	0.68 in	15-6250 psi	Water	UV			
4 NPS	6 NPS	4.186 in ²	[M] 2.309	in	1 in	15-3750 psi	Water	NV			
4 NPS	6 NPS	4.186 in ²	[M] 2.309	in	1 in	15-3750 psi	Water	UV			
4 NPS	6 NPS	5.047 in ²	[N] 2.535	in	1 in	15-3750 psi	Water	NV			
4 NPS	6 NPS	5.047 in ²	[N] 2.535	in	1 in	15-3750 psi	Water	UV			
3 NPS	4 NPS	6.321 in ²	2.837 in		0.68 in	15-3750 psi	Water	UV			
4 NPS	6 NPS	7.417 in ²	[P] 3.073	in	1 in	15-3750 psi	Water	NV			
4 NPS	6 NPS	7.417 in ²	[P] 3.073	in	1 in	15-3750 psi	Water	UV			
4 NPS	6 NPS	10.76 in ²	3.701 in		1 in	15-3750 psi	Water	UV			
6 NPS	8 NPS	12.85 in ²	[Q] 4.045	in	1.31 in	15-1500 psi	Water	NV			
6 NPS	8 NPS	12.85 in ²	[Q] 4.045	in	1.31 in	15-1500 psi	Water	UV			
6 NPS	8 NPS	18.6 in ²	[R] 4.866	in	1.31 in	15-1500 psi	Water	NV			

6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	UV
8 NPS	10 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Water	UV

Dresser, LLC (DRJ)

Jacksonville, FL 32221United States

This Company Manufactures or Assembles:

Design Name	e: 13900 TRF			NBCert	# 18469					
Manufacturer/A	ssembler		Design	ators	E	cpiration Da	te			
Manufacturer			UV		10)/18/2024				
Design Type										
[Pilot Operated Pressure Relief Valve] 13900 TRH Capacity Tests: Sec. UV at Dresser, Inc. on June 13, 1969 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless; Certification Provisions: Exceeds Lab Limits (Prev. CC 2397) Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
16 NPS	18 NPS	114 in²	12.05 in	3.81 in	50-300 psi	Steam	UV			
18 NPS	22 NPS	143.1 in²	13.5 in	4.07 in	50-300 psi	Steam	UV			
20 NPS	24 NPS	176.7 in ²	15 in	4.53 in	50-300 psi	Steam	UV			
Design Name	e: 13900 TRH	H 20"		NBCert	# 18470					
Manufacturer/A	ssembler		Design	ators	E	cpiration Da	te			
Manufacturer			UV		10)/18/2024				
Design Type										
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - Test: Sto Set Pressure De Blowdown Chara Flow Area Config	Pressure Relief Valve Sec. UV at Dresser, lu lishing Relieving Cap 0.784 Unitless; Certifi eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full] 13900 TRH 2 nc. on Decemb pacity: Flow Ca cation Provisio as, Steam Lift	20" er 16, 2008 bacity, K ns: Exceeds Lab Li	mits (Prev. CC 2397)						

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator					
20 NPS	24 NPS	201 in ²	[13906] 16 in	4.77 in	50-300 psi	Steam	UV					
Design Name	e: 1541, 1543	3, 1541-3, 1	1543-3	NBCert #	# 18032							
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	_					
Manufacturer UV, V 05/25/2028												
Design Type												
[Safety Valve] 1541, 1543, 1541-3, 1543-3 Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}												
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator					
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V					
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV					
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V					
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV					
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V					
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV					
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V					
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV					
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V					
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV					
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V					
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV					
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V					
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV					
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V					
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV					
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V					
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV					
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V					
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV					
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V					
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV					
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-300 psi	Steam	NV, UV, V					
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV					

Design Nam								
Manufacturer/A	ssembler		Designate	ors	Ex	Expiration Date		
Manufacturer			UV, V		11	/02/2024		
Design Type								
[Safety Valve] 1 Capacity Tests: Method of Estab Certified Value: Media - Test: St Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr	700 & 2700 Sec. UV, V at Dresse blishing Relieving Cap 0.878 Unitless team; Certified: Stear efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ}	r, Inc. on Augu pacity: Flow Ca n Lift	st 1, 1957 pacity, K					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	3 NPS	0.442 in²	[#9] 0.75 in	0.188 in	15-3000 psi	Steam	UV	
1-1.5 NPS	3 NPS	0.442 in ²	[#9] 0.75 in	0.188 in	50-3000 psi	Steam	V	
1.25-2.5 NPS	3, 4 NPS	0.994 in²	[#1] 1.125 in	0.281 in	15-3100 psi	Steam	UV	
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[#1] 1.125 in	0.281 in	50-5800 psi	Steam	V	
1.5-2.5 NPS	3 - 6 NPS	1.431 in²	[#2] 1.35 in	0.338 in	15-3100 psi	Steam	UV	
1.5-2.5 NPS	3 - 6 NPS	1.431 in ²	[#2] 1.35 in	0.338 in	50-5800 psi	Steam	V	
4 NPS	4 dual NPS	1.84 in²	[K] 1.531 in	0.383 in	50-5800 psi	Steam	V	
2-3 NPS	6 NPS	2.545 in ²	[#3] 1.8 in	0.45 in	50-5800 psi	Steam	UV, V	
2.5-2.5 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-2575 psi	Steam	UV	
2.5-2.5 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	50-2575 psi	Steam	V	
2.5-3 NPS	6, 8 NPS	3.341 in ²	[#5] 2.062 in	0.516 in	15-3100 psi	Steam	UV	
2.5-3 NPS	6, 8 NPS	3.341 in ²	[#5] 2.062 in	0.516 in	50-5800 psi	Steam	V	
3-3 NPS	6, 8 NPS	3.976 in ²	[#4] 2.25 in	0.563 in	15-3100 psi	Steam	UV	
3-3 NPS	6, 8 NPS	3.976 in ²	[#4] 2.25 in	0.563 in	50-5800 psi	Steam	V	
4 NPS	6,8 NPS	7.07 in ²	[#6] 3 in	0.75 in	15-3100 psi	Steam	UV	
4 NPS	6,8 NPS	7.07 in ²	[#6] 3 in	0.75 in	50-3100 psi	Steam	V	
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-2000 psi	Steam	UV	
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	50-2000 psi	Steam	V	
6 NPS	8 NPS	12.25 in ²	[Q] 3.948 in	0.987 in	15-2000 psi	Steam	V	
6 NPS	8 NPS	12.25 in ²	[Q] 3.948 in	0.987 in	15-2000 psi	Steam	UV	
6 NPS	8, 10 NPS	14.18 in ²	[#8] 4.25 in	1.063 in	15-1800 psi	Steam	UV	
6 NPS	8, 10 NPS	14.18 in ²	[#8] 4.25 in	1.063 in	50-2000 psi	Steam	V	
6-8 NPS	8, 10 NPS	16 in ²	[R] 4.515 in	1.129 in	15-1800 psi	Steam	UV	
6-8 NPS	8, 10 NPS	16 in ²	[R] 4.515 in	1.129 in	50-2000 psi	Steam	V	
6-8 NPS	8, 10 NPS	19.29 in ²	[RR] 4.956 in	1.24 in	50-2200 psi	Steam	UV, V	
8-10 NPS	10,12 NPS	28.3 in ²	[T] 6 in	1.5 in	50-1500 psi	Steam	UV, V	

 Design Name:
 1700 & 2700 (Restricted Lift version of Cert. NBCert # 1811)

 Manufacturer/Assembler
 Designators
 Expiration Date

 Manufacturer
 UV, V
 09/09/2027

 Design Type
 [Safety Valve] 1700 & 2700 (Restricted Lift version of Cert. # 18100) Capacity Tests: Sec. UV, V at unknown lab on October 13, 1981 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless; Certification Provisions: Restricted Lift (Prev. CC 1923 &/or 1945)

Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable

Flow Area Configuration: Restricted Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	3 NPS	0.442 in ²	[9] 0.75 in	0.08 in	15-3000 psi	Steam	UV
1-1.5 NPS	3 NPS	0.442 in ²	[9] 0.75 in	0.08 in	50-3000 psi	Steam	V
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[1] 1.125 in	0.084 in	15-3100 psi	Steam	UV
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[1] 1.125 in	0.084 in	50-5800 psi	Steam	V
1.5-2.5 NPS	3-6 NPS	1.431 in²	[2] 1.35 in	0.101 in	15-3100 psi	Steam	UV
1.5-2.5 NPS	3-6 NPS	1.431 in²	[2] 1.35 in	0.101 in	50-5800 psi	Steam	V
2-3 NPS	6 NPS	2.545 in ²	[3] 1.8 in	0.135 in	15-3100 psi	Steam	UV
2-3 NPS	6 NPS	2.545 in ²	[3] 1.8 in	0.135 in	50-5800 psi	Steam	V
2.5-3 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.143 in	15-2575 psi	Steam	UV
2.5-3 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.143 in	50-2575 psi	Steam	V
2.5-3 NPS	6, 8 NPS	3.341 in ²	[5] 2.062 in	0.155 in	15-3100 psi	Steam	UV
2.5-3 NPS	6, 8 NPS	3.341 in ²	[5] 2.062 in	0.155 in	50-5800 psi	Steam	V
3-4 NPS	6, 8 NPS	3.976 in ²	[4] 2.25 in	0.169 in	15-3100 psi	Steam	UV
3-4 NPS	6, 8 NPS	3.976 in ²	[4] 2.25 in	0.169 in	50-5800 psi	Steam	V
4 NPS	6, 8 NPS	7.07 in ²	[6] 3 in	0.225 in	15-3100 psi	Steam	UV
4 NPS	6, 8 NPS	7.07 in ²	[6] 3 in	0.225 in	50-3100 psi	Steam	V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.281 in	15-2000 psi	Steam	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.281 in	50-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.946 in	0.296 in	15-2000 psi	Steam	UV, V
6-8 NPS	8, 10 NPS	14.18 in ²	[8] 4.25 in	0.319 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	14.18 in ²	[8] 4.25 in	0.319 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	0.339 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	0.339 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	19.29 in ²	[RR] 4.956 in	0.372 in	50-2200 psi	Steam	V
8-10 NPS	10, 12 NPS	28.3 in ²	[T] 6 in	0.45 in	50-1500 psi	Steam	UV, V

Design Name	e: 1900, 1900 (Liquids)	0-30 1900-:	35 LA & DALA	NBCert	# 18784		
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	
Manufacturer			NV, UV, V	,	1	1/04/2027	
Design Type							
[Relief Valve] 19 Capacity Tests: 1 Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Dr	900, 1900-30 1900-33 Sec. NV, UV, V at Dro Jishing Relieving Cap 0.670 Unitless later/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full resser, LLC {DRJ}	5 LA & DALA (l esser, Inc. on J bacity: Flow Ca Liquid Stream Lift	Liquids) uly 12, 1995 pacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V
1.5-1.5 NPS	2 - 3 NPS	0.357 in²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V
6-6 NPS	8 NPS	12.851 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V
6-6 NPS	8, 10 NPS	18.604 in²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	30.21 in²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	35 in ²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V
Design Name	e: 1900, 190	0-30, 1900-	-35	NBCert	# 18201		
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	
Manufacturer			NV, UV		0	5/03/2027	
Design Type							
[Safety Relief Va Capacity Tests: Method of Estab Certified Value:	alve] 1900, 1900-30, Sec. NV, UV at Dress blishing Relieving Cap 0.855 Unitless	1900-35 ser, Inc. on Oct pacity: Flow Ca	ober 11, 1954 pacity, K				

Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV

Design Name: 19000 Series NBCert # 18706													
Manufacturer/A	Assembler		Designate	Designators Expiration Date									
Manufacturer			UV		11	/01/2024							
Design Type	Design Type												
[Safety Relief Va Capacity Tests: Method of Estab Certified Value: Media - ; Certifie Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr	alve] 19000 Series Sec. UV at Dresser, olishing Relieving Caj 0.878 Unitless ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full resser, LLC {DRJ}	Inc. on August : pacity: Flow Ca Lift	26, 1994 pacity, К										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator						
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV						
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV						
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV						
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV						
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV						
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV						
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV						
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV						
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV						
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV						
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV						
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV						
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV						
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV						
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV						
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV						
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV						
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV						
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV						
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV						
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV						
1.5-1.5 NPS	2 NPS	0.357 in²	0.675 in	0.212 in	15-1500 psi	Steam	NV						
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV						
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV						
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV						
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV						

Design Nam	ne: 19000 Se	ries, Liquid		NBCert	# 18717		
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	•
Manufacturer		_	NV UV		1	1/02/2024	
Dosign Type			,			1,02,2021	
[Relief Valve] 1 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Cha Flow Area Com Designed by: D	19000 Series, Liquid : Sec. UV at Dresser, Iblishing Relieving Ca : 0.673 Unitless Vater/Liquid; Certified Definition: First Steady racteristics: Fixed figuration: Nozzle/Full Dresser, LLC {DRJ}	Inc. on August pacity: Flow Ca : Liquid [,] Stream I Lift	30, 1994 apacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV
Design Nam	ne: 1900D-2,	1900-30D-2	2 Designat	NBCert	# 18144	voiration Date	
Manufacturer	Assembler		Designat	.015			5
Design Type	_	_	NV, UV	_	0:	5/03/2027	
[Safety Relief V Capacity Tests: Method of Esta Certified Value: Media - Test: A Set Pressure D Blowdown Cha Flow Area Cont Designed by: D	/alve] 1900D-2, 1900 : Sec. NV, UV at Dres blishing Relieving Ca : 5.630 PPH/PSIA; (al Xir/Gas, Steam; Certifi Definition: Pop racteristics: Adjustabl figuration: Restricted Dresser, LLC {DRJ}	-30D-2 ser, Inc. on Aug pacity: Flow Ca ternate mediun ied: Air, Gas, Si e (Single Ring) Lift	gust 16, 1977 apacity, Slope n): 2.004 SCFM/PSIA leam				
Inlet Size	Outlet Size	Flow Area	Orifice	l ift	Set Pressure	Media	Designator

iniet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	wedia	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV

Manufacturer/As	ssembler	D	Designators			Expiration Date						
Manufacturer			Ν	NV, UV, V			11/04/2027					
Design Type												
[Relief Valve] 1900D-2, 1900-30D-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.256 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}												
Inlet Size	Outlet Size	Orifice [designato	tor] dia. Lift Set Pressure Range			Media	Designator					
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 in		0.056 in	15-6250 psi	Water	NV, UV, V				
Design Name	: 1900-DM				NBCert #	¢ 190	66					
Manufacturer/As	ssembler		D	esignato	rs		Expiration Date					
Manufacturer			U	JV			08/27/2026					
Design Type												
Safety Relief Valve] 1900-DM HolderDesignation: Capacity Tests: Sec. UV at Dresser, Inc. on March 15, 2010 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless; (alternate medium): 0.670 Unitless; Certification Provisions: Multiple Media (Code Case 2787) Media - Test: Air/Gas, Water/Liquid; Certified: Air, Gas, Liquid Set Pressure Definition(1): Pop; (2): First Steady Stream Blowdown Characteristics: Fixed												

Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-10000 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-10000 psi	Water	UV
1.5-2 NPS	3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-10000 psi	Air	UV
1.5-2 NPS	3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-10000 psi	Water	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.395 in	15-10000 psi	Air	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.395 in	15-10000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-10000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-10000 psi	Air	UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3000 psi	Air	UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3000 psi	Water	UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Air	UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	0.846 in	15-1600 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	0.846 in	15-1600 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Air	UV

4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	UV	
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Air	UV	
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	UV	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Air	UV	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	UV	
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.782 in	15-650 psi	Air	UV	
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.782 in	15-650 psi	Water	UV	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-360 psi	Air	UV	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-360 psi	Water	UV	
8 NPS	10 NPS	35 in²	[U] 6.688 in	2.428 in	15-360 psi	Air	UV	
8 NPS	10 NPS	35 in²	[U] 6.688 in	2.428 in	15-360 psi	Water	UV	
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Air	UV	
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	UV	
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Air	UV	
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	UV	
Design Name	e: 1900-DM-I	D		NBCert #	# 19088			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Manufacturer			UV		08	/27/2026		
Design Type								
[Sarety Relief Va HolderDesignatic Capacity Tests: \$ Method of Estab Certified Value: ^ Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	IVej 1900-DM-D on: Sec. UV at National E lishing Relieving Cap 1.991 SCFM/PSIA; (a r/Gas, Water/Liquid; (finition(1): Pop; (2): acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	Board Testing L bacity: Flow Ca alternate mediu Certified: Air, G First Steady St .ift	ab on March 18, 2010 pacity, Slope Im): 3.256 GPM/SQ.R ias, Liquid tream	T. PSID; Certificatic	n Provisions: Multip	ole Media (Coo	de Case 2787)	
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.674 in	0.067 in	15-10000 psi	Air	UV	
Design Name	e: 1900-DM-I	Ξ		NBCert #	# 19099			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Manufacturer			UV		08	/27/2026		
Design Type								
[Safety Relief Valve] 1900-DM-E HolderDesignation: Capacity Tests: Sec. UV at National Board Testing Lab on March 10, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 3.558 SCFM/PSIA; (alternate medium): 5.798 GPM/SQ.RT. PSID; Certification Provisions: Multiple Media (Code Case 2787) Media - Test: Air/Gas, Water/Liquid; Certified: Air, Gas, Liquid Set Pressure Definition(1): Pop; (2): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift								

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 in	0.105 in	15-10000 psi	Air	UV
Design Name	e: 1900E-2, 1	1900-30E-2		NBCert ‡	# 18166	5	
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Manufacturer			NV, UV		1	1/04/2027	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Establ Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	Ive] 1900E-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al /Gas, Steam; Certific finition: Pop licteristics: Adjustable juration: Restricted L sesser, LLC {DRJ}	30E-2 ser, Inc. on Aug bacity: Flow Ca ternate mediun ed: Air, Gas, Sto e (Single Ring) .ift	ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA eam				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV
Design Name	e: 1900E-2, 1	1900-30E-2	LA & DALA (Liqu	uids) NBCert <i>‡</i>	# 18762	2	
Manufacturer/A	ssembler		Designato	ors	E	Expiration Date	
Manufacturer			NV, UV, V		1	1/04/2027	
Design Type							
[Relief Valve] 19 Capacity Tests: 5 Method of Establ Certified Value: 5 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	00E-2, 1900-30E-2 I Sec. NV, UV, V at Dre lishing Relieving Cap 5.798 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady locteristics: Fixed guration: Restricted L sesser, LLC {DRJ}	LA & DALA (Liq esser, Inc. on J pacity: Flow Ca 'SID Liquid Stream .ift	uids) uly 12, 1995 pacity, Flow Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V
Design Name	e: 19110M &	19110H (L	iquids)	NBCert ‡	¥ 19077	7	
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Manufacturer			NV, UV		1	1/04/2027	
Design Type							
[Relief Valve] 19 Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	110M & 19110H (Liq Sec. NV, UV at Dress lishing Relieving Cap 2.264 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ}	juids) ser, Inc. on July pacity: Flow Ca SID Liquid Stream Lift	29, 2010 pacity, Flow Factor				

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	290-5000 psi	Water	UV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	290-5000 psi	Water	NV			
Design Name	e: 1970			NBCert ;	# 18559					
Manufacturer/A	ssembler		Designa	itors	E>	piration Date				
Manufacturer			NV, -Cla	ss 2, -Class 3	05	6/27/2027				
Design Type [Safety Relief Valve] 1970 Capacity Tests: Sec. NV, UV at Dresser, Inc. on April 5, 1956 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.779 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser Designed by: Dresser										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.75 NPS	1 NPS	0.126 in ²	0.401 in	0.07 in	15-5000 psi	Air	UV			
0.75 NPS	1 NPS	0.126 in ²	0.401 in	0.07 in	15-2900 psi	Steam	NV			
0.75 NPS	1 NPS	0.126 in ²	0.401 in	0.07 in	15-2900 psi	Steam	UV			
1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.15 in	15-3000 psi	Air	UV			
1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.15 in	15-2900 psi	Steam	NV			
1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.15 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2 NPS	0.5216 in ²	0.815 in	0.228 in	15-1500 psi	Air	UV			
1.5-2 NPS	2 NPS	0.5216 in ²	0.815 in	0.228 in	15-1500 psi	Steam	NV			
1.5-2 NPS	2 NPS	0.5216 in ²	0.815 in	0.228 in	15-1500 psi	Steam	UV			
Design Name	e: 1975-4 LS	& DL, Liqu	ids	NBCert ;	# 18638					
Manufacturer/A	ssembler		Designa	itors	E	piration Date				
Manufacturer			NV, -Cla	ss 2, -Class 3	05	6/27/2027				
Design Type										
[Relief Valve] 1975-4 LS & DL, Liquids Capacity Tests: Sec. NV at Dresser, Inc. on March 21, 1989 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.151 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	1 NPS	0.11 in²	0.375 in	0.2 in	15-2000 psi	Water	NV			

Design Nan	ne: 1982			NBCert # 18379					
Manufacturer	/Assembler		Designat	Designators			Expiration Date		
Manufacturer					0:	3/23/2028			
Design Type [Safety Relief Valve] 1982 Capacity Tests: Sec. NV, -Class 2, -Class 3, UV at National Board Testing Lab (Picaway) on May 6, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LL C (DR I)									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5 NPS	.75 NPS	0.121 in ²	0.393 in	0.092 in	15-500 psi	Air	NV, UV		
0.5 NPS	.75 NPS	0.121 in ²	0.393 in	0.092 in	15-500 psi	Steam	NV, UV		
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Air	NV, UV		
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Steam	NV, UV		
1 NPS	1.5 NPS	0.332 in ²	0.65 in	0.15 in	15-500 psi	Air	NV, UV		

0.15 in

0.243 in

0.243 in

0.31 in

0.31 in

15-500 psi

15-500 psi

15-500 psi

15-500 psi

15-500 psi

1 NPS

1.5 NPS

1.5 NPS

2 NPS

2 NPS

1.5 NPS

2 NPS

2 NPS

2.5 NPS

2.5 NPS

0.332 in²

0.857 in²

0.857 in²

1.399 in²

1.399 in²

0.65 in

1.045 in

1.045 in

1.335 in

1.335 in

Design Name	Design Name: 1982 LS, 820000LS							
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	•	
Manufacturer			UV		0:	5/25/2028		
Design Type [Relief Valve] 1982 LS, 820000LS Capacity Tests: Sec. UV at Dresser, Inc. on December 19, 1984 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.758 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-0.75 NPS	.75 - 1 NPS	0.121 in²	0.393 in	0.137 in	15-500 psi	Water	NV	
0.5-0.75 NPS	.75 - 1 NPS	0.121 in ²	0.393 in	0.137 in	15-500 psi	Water	UV	
0.75-1 NPS	1 , 1.5 NPS	0.216 in ²	0.524 in	0.162 in	15-500 psi	Water	NV	
0.75-1 NPS	1 , 1.5 NPS	0.216 in ²	0.524 in	0.162 in	15-500 psi	Water	UV	
1-1.25 NPS	1.5 NPS	0.332 in ²	0.65 in	0.236 in	15-500 psi	Water	NV	
1-1.25 NPS	1.5 NPS	0.332 in ²	0.65 in	0.236 in	15-500 psi	Water	UV	

NV, UV

NV, UV

NV, UV

NV, UV

NV, UV

Steam

Steam

Steam

Air

Air

1.5-2 NPS	2, 2.5 NPS	0.857 in ²	1.045 in	0.343 in	15-500 psi	Water	NV			
1.5-2 NPS	2, 2.5 NPS	0.857 in ²	1.045 in	0.343 in	15-500 psi	Water	UV			
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.43 in	15-500 psi	Water	NV			
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.43 in	15-500 psi	Water	UV			
Design Name	e: 1990 - 399	9		NBCert #	¥ 18391					
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date				
Manufacturer			NV, -Class	s 2, -Class 3	07	7/30/2026				
Design Type										
[Safety Relief Valve] 1990 - 3999 Capacity Tests: Sec. NV, UV at National Board Testing Lab (Picaway) on September 16, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.825 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser LL C (DR I)										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-0.75 NPS	.5, .75 NPS	0.019 in ²	0.156 in	0.039 in	15-1000 psi	Steam	NV, UV			
0.5-0.75 NPS	.5, .75 NPS	0.019 in ²	0.156 in	0.039 in	15-8500 psi	Air	NV, UV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.17 in	15-2000 psi	Steam	NV, UV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.17 in	15-6000 psi	Air	NV, UV			
0.75-0.75 NPS	1 NPS	0.126 in ²	0.401 in	0.14 in	15-1000 psi	Steam	NV, UV			
0.75-0.75 NPS	1 NPS	0.126 in ²	0.401 in	0.14 in	15-8000 psi	Air	NV, UV			
1-1 NPS	1.5 NPS	0.196 in ²	0.5 in	0.205 in	15-2000 psi	Steam	NV, UV			
1-1 NPS	1.5 NPS	0.196 in ²	0.5 in	0.205 in	15-3000 psi	Air	NV, UV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.2 in	15-1000 psi	Steam	NV, UV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.2 in	15-6400 psi	Air	NV, UV			
1-1 NPS	1.5 NPS	0.292 in ²	0.61 in	0.215 in	15-1500 psi	Air	NV, UV			
1-1 NPS	1.5 NPS	0.292 in ²	0.61 in	0.215 in	15-1500 psi	Steam	NV, UV			
1.5-2 NPS	2 NPS	0.442 in ²	0.75 in	0.24 in	15-1500 psi	Air	NV, UV			
1.5-2 NPS	2 NPS	0.442 in ²	0.75 in	0.24 in	15-1500 psi	Steam	NV, UV			
2-2 NPS	2 NPS	0.754 in ²	0.98 in	0.39 in	15-1000 psi	Air	NV, UV			
2-2 NPS	2 NPS	0.754 in ²	0.98 in	0.39 in	15-1000 psi	Steam	NV, UV			

Design Name: 1990 - 3999 LS & DL (Liquids)

Cert <u>#</u>

18403

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	02/14/2027

1.5 NPS

1.5-2 NPS

2 - 3 NPS

2.5 - 3 NPS

0.3568 in²

0.5849 in²

[F] 0.674 in

[G] 0.863 in

[Relief Valve] 1990 - 3999 LS & DL (Liquids) Capacity Tests: Sec. NV, UV at Dresser, Inc. on November 2, 1984 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.669 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.5 - 1 NPS	0.019 in ²	0.156 in	0.045 in	15-1000 psi	Water	NV
0.5-0.75 NPS	.5 - 1 NPS	0.019 in ²	0.156 in	0.045 in	15-11000 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.17 in	15-6000 psi	Water	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.17 in	15-6000 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.17 in	15-1870 psi	Water	NV, -Class 1
0.75-0.75 NPS	1 NPS	0.126 in ²	0.401 in	0.14 in	15-8000 psi	Water	NV
0.75-0.75 NPS	1 NPS	0.126 in ²	0.401 in	0.14 in	15-8000 psi	Water	UV
1 NPS	1.5 NPS	0.196 in ²	0.5 in	0.205 in	15-3000 psi	Water	NV
1 NPS	1.5 NPS	0.196 in ²	0.5 in	0.205 in	15-3000 psi	Water	UV
1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.2 in	15-6400 psi	Water	NV
1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.2 in	15-6400 psi	Water	UV
1 NPS	1.5 NPS	0.292 in ²	0.61 in	0.215 in	15-1500 psi	Water	NV
1 NPS	1.5 NPS	0.292 in ²	0.61 in	0.215 in	15-1500 psi	Water	UV
1.5-2 NPS	2 NPS	0.442 in ²	0.75 in	0.24 in	15-1500 psi	Water	NV
1.5-2 NPS	2 NPS	0.442 in ²	0.75 in	0.24 in	15-1500 psi	Water	UV
2 NPS	2.5, 3 NPS	0.754 in ²	0.98 in	0.39 in	15-1000 psi	Water	NV
2 NPS	2.5, 3 NPS	0.754 in ²	0.98 in	0.39 in	15-1000 psi	Water	UV

Design Name: 2900 (39PV & 39MV pilots - Liqui

NBCert # 188

15-6250 psi

15-6250 psi

Water

Water

UV, V

UV, V

Manufacturer/Assembler				Designators			Expiration Date			
Manufacturer			UV	UV						
Design Type										
[Pilot Operated Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure D Blowdown Char Flow Area Conf Designed by: D	[Pilot Operated Pressure Relief Valve] 2900 (39PV & 39MV pilots - Liquid) Capacity Tests: Sec. UV, V at Dresser, Inc. on June 25, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser IL C /DR I)									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	UV, V			
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	UV, V			

0.16 in

0.205 in

1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.395 in	15-3750 psi	Water	UV, V
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-6000 psi	Water	UV, V
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-6000 psi	Water	UV, V
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-3750 psi	Water	UV, V
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-2250 psi	Water	UV, V
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-2250 psi	Water	UV, V
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-2250 psi	Water	UV, V
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-1500 psi	Water	UV, V
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.738 in	15-1500 psi	Water	UV, V
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-905 psi	Water	UV, V
8 NPS	10 NPS	35 in ²	[U] 6.688 in	1.841 in	15-905 psi	Water	UV, V
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.93 in	15-675 psi	Water	UV, V
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-535 psi	Water	UV, V

Design Name:	2900 (39PV & 39MV pilots)		NBCert # 18	363
Manufacturer/Assem	ıbler	Designators		Expiration Date
Manufacturer		UV		04/25/2028

Design Type

[Pilot Operated Pressure Relief Valve] 2900 (39PV & 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on June 25, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-7200 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-4230 psi	Steam	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3750 psi	Air	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2500 psi	Steam	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-6000 psi	Air	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2500 psi	Steam	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2000 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-3750 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-2250 psi	Air	UV
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4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-2250 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-2250 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	UV
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-1500 psi	Air	UV
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-905 psi	Steam	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Steam	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Steam	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-675 psi	Air	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-300 psi	Steam	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-535 psi	Air	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	UV

P.1010/	

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/03/2027

Design Type

[Pilot Operated Pressure Relief Valve] 2900-TM (39PV & 39MV pilots)

HolderDesignation:

Capacity Tests: Sec. UV at Dresser, Inc. on June 25, 1999

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.855 Unitless; (alternate medium): 0.670 Unitless; Certification Provisions: Multiple Media (Code Case 2787)

Media - Test: Air/Gas, Steam, Water/Liquid; Certified: Air, Gas, Liquid, Steam

Set Pressure Definition(1): Pop; (2): Initial Audible Discharge

Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Nozzle/Full Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-6250 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-6250 psi	Water	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Water	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-6250 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-4230 psi	Steam	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-6250 psi	Water	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6250 psi	Air	UV

1.5-2 NPS	2.5 - 3 NPS	0.5849 in²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3750 psi	Air	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2500 psi	Steam	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3750 psi	Water	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-6000 psi	Air	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2500 psi	Steam	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-6000 psi	Water	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2000 psi	Steam	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-6000 psi	Water	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-3750 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-3750 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-2250 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-2250 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-2250 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-2250 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-2250 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-2250 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-1500 psi	Water	UV
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-1500 psi	Air	UV
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-300 psi	Steam	UV
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-1500 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-300 psi	Steam	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Water	UV
8 NPS	10 NPS	35 in ²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Steam	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Water	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-675 psi	Air	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-300 psi	Steam	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-675 psi	Water	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-535 psi	Air	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-535 psi	Water	UV

Design Name: 3900 (39PV, 39MV pilots)		NBCert #	18447
Manufacturer/Assembler	Designators		Expiration Date
Manufacturer	UV		03/23/2028
Design Type			
[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pile Capacity Tests: Sec. UV at Dresser, Inc. on May 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilo Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}	ots) t		

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Air	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Air	UV

4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-750 psi	Steam	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	UV
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Air	UV
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-700 psi	Steam	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	69.94 in ²	9.437 in	3 in	15-750 psi	Steam	UV
Design Name	e: 3900 (39P	V, 39MV p	ilots, liquid)	NBCert ;	# 18458		
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date	•
Manufacturer			NV, UV		01	/27/2028	
Design Type							
[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots, liquid) Capacity Tests: Sec. UV at Dresser, Inc. on June 1, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.743 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC /DR I)							

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Water	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Water	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	UV
8 NPS	10 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Water	UV

Manufacturer/Assembler				Designators			Expiration Date		
Manufacturer			UV				12/01/2027		
Design Type	Design Type								
[Pilot Operated Pressure Relief Valve] 3900-TM (39PV, 39MV pilots) HolderDesignation: Capacity Tests: Sec. UV at Dresser, Inc. on May 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless; (alternate medium): 0.743 Unitless; Certification Provisions: Multiple Media (Code Case 2787) Media - Test: Air/Gas, Steam, Water/Liquid; Certified: Air, Gas, Liquid, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] c	lia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in		0.205 in	15-6250 psi	Air	UV	
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in		0.205 in	15-6250 psi	Water	UV	
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in		0.205 in	15-750 psi	Steam	UV	
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in		0.25 in	15-6250 psi	Air	UV	
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in		0.25 in	15-6250 psi	Water	UV	
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in		0.25 in	15-750 psi	Steam	UV	
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in		0.25 in	15-6250 psi	Air	UV	
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in		0.25 in	15-6250 psi	Water	UV	
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in		0.25 in	15-750 psi	Steam	UV	
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in		0.5 in	15-6250 psi	Air	UV	
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in		0.5 in	15-6250 psi	Water	UV	
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in		0.5 in	15-750 psi	Steam	UV	
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in		0.5 in	15-6250 psi	Air	UV	
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in		0.5 in	15-6250 psi	Water	UV	
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in		0.5 in	15-750 psi	Steam	UV	
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in		0.5 in	15-6250 psi	Air	UV	
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in		0.5 in	15-6250 psi	Water	UV	
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in		0.5 in	15-750 psi	Steam	UV	
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in		0.68 in	15-6250 psi	Air	UV	
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in		0.68 in	15-6250 psi	Water	UV	
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in		0.68 in	15-750 psi	Steam	UV	
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in		0.68 in	15-6250 psi	Air	UV	
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in		0.68 in	15-6250 psi	Water	UV	
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in		0.68 in	15-750 psi	Steam	UV	
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in		1 in	15-3750 psi	Air	UV	
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in		1 in	15-3750 psi	Water	UV	
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in		1 in	15-750 psi	Steam	UV	
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in		1 in	15-3750 psi	Air	UV	

4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	UV	
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	UV	
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Air	UV	
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	UV	
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	UV	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Air	UV	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	UV	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	UV	
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Air	UV	
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	UV	
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	UV	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Air	UV	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	UV	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	UV	
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Air	UV	
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	UV	
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	UV	
Design Name	e: 4900 (49P	V & 49MV	pilots)	NBCert	# 18885			
Manufacturer/A	Assembler		Designato	ors	Ex	piration Date	•	
Manufacturer			UV		03/23/2028			
Design Type								
[Pilot Operated Pressure Relief Valve] 4900 (49PV & 49MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on August 5, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC /DR I)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 NPS	0.1314 in²	[D] 0.409 in	0.25 in	15-6250 psi	Air	UV	
1-1.5 NPS	2 NPS	0.1314 in²	[D] 0.409 in	0.25 in	15-750 psi	Steam	UV	
		0.000 1.3	151 0 500 1	0.05 in	45 0050	A in		

1-1.5 NI 0	2 N 0	0.1314 11	[D] 0.403 III	0.25 11	10-700 psi	Otean	01
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.359 in ²	[F] 0.676 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.359 in ²	[F] 0.676 in	0.25 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.594 in ²	[G] 0.869 in	0.7 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.594 in ²	[G] 0.869 in	0.7 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.93 in ²	[H] 1.088 in	0.7 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.93 in ²	[H] 1.088 in	0.7 in	15-750 psi	Steam	UV
2-3 NPS	3 - 4 NPS	1.513 in ²	[J] 1.388 in	0.7 in	15-6250 psi	Air	UV
2-3 NPS	3 - 4 NPS	1.513 in ²	[J] 1.388 in	0.7 in	15-750 psi	Steam	UV

3 NPS	4 NPS	2.16 in ²	[K] 1.658 in	0.68 in	15-3750 psi	Air	UV
3 NPS	4 NPS	2.16 in ²	[K] 1.658 in	0.68 in	15-750 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.35 in ²	[L] 2.065 in	0.68 in	15-3750 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.35 in ²	[L] 2.065 in	0.68 in	15-750 psi	Steam	UV
4 NPS	6 NPS	4.229 in ²	[M] 2.321 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.229 in ²	[M] 2.321 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	5.098 in ²	[N] 2.548 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.098 in ²	[N] 2.548 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	7.491 in ²	[P] 3.088 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.491 in ²	[P] 3.088 in	1 in	15-750 psi	Steam	UV
6 NPS	8 NPS	12.979 in ²	[Q] 4.065 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.979 in ²	[Q] 4.065 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 - 10 NPS	18.783 in²	[R] 4.89 in	1.31 in	15-150 psi	Steam	UV
6 NPS	8 - 10 NPS	18.783 in²	[R] 4.89 in	1.31 in	15-1500 psi	Air	UV
8 NPS	10 NPS	30.542 in ²	[T] 6.236 in	2 in	15-1500 psi	Air	UV
8 NPS	10 NPS	30.542 in ²	[T] 6.236 in	2 in	15-750 psi	Steam	UV

East Coast Valve Services, Inc. (ECG)

Groton, CT 06340United States

This Company Manufactures or Assembles:

Jesign Name. 9 Series				NDCell #	44019		
Manufacturer/As	ssembler		Designato	rs	Ex	piration Date	
Assembler			UV		10/	/23/2026	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 0 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: TR	Ive] 9 Series Sec. UV at National B ishing Relieving Cap 0.823 Unitless /Gas; Certified: Air, G finition: Initial Audible Interistics: Adjustable Juration: Nozzle/Full I ILLIUM Flow Technol	oard Testing La acity: Flow Cap as, Steam Discharge (Single Ring) Lift ogies - France	b on July 24, 1997 acity, K SAS {SAR}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	0.5, 1 NPS	0.0438 in ²	0.236 in	0.07 in	15-4700 psi	Air	UV
0.5-0.75 NPS	0.5, 1 NPS	0.0438 in²	0.236 in	0.07 in	15-2900 psi	Steam	UV
0.5-1 NPS	1 NPS	0.124 in ²	0.398 in	0.1 in	14.5-2900 psi	Steam	UV
0.5-1 NPS	1 NPS	0.124 in ²	0.398 in	0.1 in	14.5-4700 psi	Air	UV
0.75-1 NPS	1 NPS	0.222 in ²	0.531 in	0.13 in	14.5-2220 psi	Air	UV
0.75-1 NPS	1 NPS	0.222 in ²	0.531 in	0.13 in	14.5-2220 psi	Steam	UV
1-1.5 NPS	1.5 NPS	0.352 in ²	0.669 in	0.17 in	14.5-740 psi	Air	UV

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Nameplate Abbreviation: East Coast Valve Services

1-1.5 NPS	1.5 NPS	0.352 in ²	0.669 in	0.17 in	14.5-740 psi	Steam	UV
1-1.5 NPS	1.5 NPS	0.568 in ²	0.85 in	0.21 in	14.5-285 psi	Air	UV
1-1.5 NPS	1.5 NPS	0.568 in ²	0.85 in	0.21 in	14.5-285 psi	Steam	UV
Design Name	e: 9 Series (L	.iquids)		NBCert #	<i>44020</i>		
Manufacturer/A	ssembler	_	Designato	ors	Ex	piration Date	_
Assembler			UV		10	/23/2026	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR	Ive] 9 Series (Liquid Sec. UV, V at Nationa lishing Relieving Cap 0.632 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Techno	s) al Board Testing pacity: Flow Caj Liquid Stream Lift logies - France	y Lab on July 24, 1997 pacity, K sAS {SAR}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	0.5, 1 NPS	0.0438 in ²	0.236 in	0.07 in	15-6250 psi	Water	UV
0.5-1 NPS	1 NPS	0.124 in ²	0.398 in	0.1 in	14.5-6250 psi	Water	UV
0.75-1 NPS	1 NPS	0.222 in ²	0.531 in	0.13 in	14.5-2220 psi	Water	UV
1-1.5 NPS	1.5 NPS	0.352 in ²	0.669 in	0.17 in	14.5-740 psi	Water	UV
1-1.5 NPS	1.5 NPS	0.568 in ²	0.85 in	0.21 in	14.5-285 psi	Water	UV
Design Name	e: P3, P4 (liq	uids)		NBCert #	4 92012		
Design Name Manufacturer/A	e: P3, P4 (liq ssembler	uids)	Designato	NBCert ≉ ors	# 92012 Ex	piration Date	
Design Name Manufacturer/A Assembler	e: P3, P4 (liq ssembler	uids)	Designato	NBCert / ors	# 92012 Ex 10	piration Date	_
Design Name Manufacturer/A Assembler Design Type	e: P3, P4 (liq ssembler	uids)	Designato UV	NBCert / ors	# 92012 Ex 10	piration Date /23/2026	_
Design Name Manufacturer/A Assembler Design Type [Relief Valve] P3 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR	e: P3, P4 (liq ssembler 3, P4 (liquids) Sec. UV, V at Nationa lishing Relieving Cap 0.631 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Techno	uids) al Board Testing bacity: Flow Cap Liquid Stream Lift logies - France	Designato UV g Lab on December 7, pacity, K	NBCert #	# 92012 Ex 10	piration Date	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] P3 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR Inlet Size	e: P3, P4 (liq ssembler 3, P4 (liquids) Sec. UV, V at Nationa lishing Relieving Cap 0.631 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Technol Outlet Size	uids) al Board Testing pacity: Flow Cap Liquid Stream Lift logies - France Flow Area	Designato UV g Lab on December 7, pacity, K e SAS {SAR} Orifice [designator] dia.	NBCert #	# 92012 Ex 10 Set Pressure Range	piration Date /23/2026 Media	Designator
Design Name Manufacturer/A Assembler Design Type [Relief Valve] P3 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR Inlet Size 1-1.5 NPS	e: P3, P4 (liq ssembler 3, P4 (liquids) Sec. UV, V at Nationa lishing Relieving Cap).631 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Technol Outlet Size	uids) al Board Testing pacity: Flow Cap Liquid Stream Lift logies - France Flow Area 0.134 in ²	Designato UV g Lab on December 7, pacity, K s SAS {SAR} Orifice [designator] dia. [D] 0.413 in	NBCert # ors 1993 Lift 0.128 in	# 92012 Ex 10 Set Pressure Range 15-10000 psi	piration Date /23/2026 Media Water	Designator UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] P3 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR Inlet Size 1-1.5 NPS 1-1.5 NPS	e: P3, P4 (liq ssembler 3, P4 (liquids) Sec. UV, V at Nationa lishing Relieving Cap 0.631 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Techno Outlet Size	uids) al Board Testing bacity: Flow Cap Liquid Stream Lift logies - France Flow Area 0.134 in ² 0.273 in ²	Designato UV g Lab on December 7, pacity, K SAS {SAR} Orifice [designator] dia. [D] 0.413 in [E] 0.59 in	NBCert # ors 1993 Lift 0.128 in 0.183 in	 # 92012 Ex 10 Set Pressure Range 15-10000 psi 15-7500 psi 	piration Date /23/2026 Media Water Water	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] P3 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR Inlet Size 1-1.5 NPS 1-5 NPS	e: P3, P4 (liq ssembler 3, P4 (liquids) Sec. UV, V at Nationa lishing Relieving Cap 0.631 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Techno Outlet Size	uids) al Board Testing bacity: Flow Cap Liquid Stream Lift logies - France Flow Area 0.134 in ² 0.273 in ²	Designato UV UV Sa Lab on December 7, pacity, K SAS {SAR} Orifice [designator] dia. [D] 0.413 in [E] 0.59 in [F] 0.689 in	NBCert # ors 1993 Lift 0.128 in 0.183 in 0.214 in	 92012 Ex 10 5 5 5 6 6 7 7<	piration Date /23/2026 //////////////////////////////////	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] P3 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR Inlet Size 1-1.5 NPS 1.51 NPS 1.52 NPS	e: P3, P4 (liq ssembler 3, P4 (liquids) Sec. UV, V at Nationa lishing Relieving Cap 0.631 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Technol Outlet Size	uids) al Board Testing bacity: Flow Cap Liquid Stream Lift logies - France Flow Area 0.134 in ² 0.273 in ² 0.373 in ² 0.589 in ²	Designato UV g Lab on December 7, pacity, K SAS {SAR} Orifice [designator] dia. [D] 0.413 in [E] 0.59 in [F] 0.689 in [G] 0.866 in	NBCert # ors 1993 Lift 0.128 in 0.183 in 0.214 in 0.268 in	# 92012 Ex 10 10 10 Set Pressure 1 15-10000 psi 1 15-7500 psi 1 15-6000 psi 1 15-6000 psi 1	piration Date /23/2026 //23/2000 //23/2000 //2	Designator UV UV UV </td
Design Name Manufacturer/A Assembler Design Type [Relief Valve] P3 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5 NPS 1.5-2 NPS	e: P3, P4 (liq ssembler 3, P4 (liquids) Sec. UV, V at Nationa lishing Relieving Cap).631 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Technol Outlet Size	uids) al Board Testing bacity: Flow Cap Liquid Stream Lift logies - France Flow Area 0.134 in ² 0.273 in ² 0.373 in ² 0.589 in ² 0.881 in ²	Designato UV g Lab on December 7, pacity, K SAS {SAR} Orifice [designator] dia. [D] 0.413 in [E] 0.59 in [F] 0.689 in [G] 0.866 in [H] 1.059 in	NBCert # ors 1993 Lift 0.128 in 0.183 in 0.214 in 0.268 in 0.328 in	 92012 Ex 10 <l< td=""><td>piration Date /23/2026 //////////////////////////////////</td><td>Designator UV UV</td></l<>	piration Date /23/2026 //////////////////////////////////	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] P3 Capacity Tests: S Method of Estab Certified Value: C Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR Inlet Size 1-1.5 NPS 1.51 NPS 1.52 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	e: P3, P4 (liq ssembler 3, P4 (liquids) Sec. UV, V at Nationa lishing Relieving Cap 0.631 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Technol Outlet Size	uids) al Board Testing bacity: Flow Cap Liquid Stream Lift logies - France 0.134 in ² 0.273 in ² 0.373 in ² 0.589 in ² 0.881 in ² 1.457 in ²	Designato UV g Lab on December 7, pacity, K SAS {SAR} Orifice [designator] dia. [D] 0.413 in [E] 0.59 in [F] 0.689 in [G] 0.866 in [H] 1.059 in [J] 1.362 in	NBCert # ors 1993 Lift 0.128 in 0.183 in 0.214 in 0.268 in 0.328 in 0.328 in 0.328 in	# 92012 Ex 10 10 10 Set Pressure 1 15-10000 psi 1 15-6000 psi 1 15-5000 psi 1	piration Date /23/2026 //////////////////////////////////	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] P3 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: TR Inlet Size 1-1.5 NPS 1.51 NPS 1.52 NPS 1.5-2 NPS 2-3 NPS 3 NPS	e: P3, P4 (liq ssembler 3, P4 (liquids) Sec. UV, V at Nationa lishing Relieving Cap 0.631 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ILLIUM Flow Techno Outlet Size	uids) al Board Testing acity: Flow Cal Liquid Stream Lift logies - France Flow Area 0.134 in ² 0.273 in ² 0.373 in ² 0.589 in ² 0.881 in ² 1.457 in ² 2.097 in ²	Designato UV Jab on December 7, pacity, K SAS {SAR} Orifice (designator) dia. [D] 0.413 in [E] 0.59 in [G] 0.866 in [H] 1.059 in [J] 1.362 in [K] 1.634 in	NBCert # ors 1993 Lift 0.128 in 0.183 in 0.214 in 0.268 in 0.328 in 0.328 in 0.328 in 0.328 in 0.328 in 0.328 in 0.328 in	92012 Ex 10 5 7 10 <td>piration Date /23/2026 //////////////////////////////////</td> <td>Non-signator UV UV</td>	piration Date /23/2026 //////////////////////////////////	Non-signator UV UV

4 NPS		4.093 in ²	[M] 2.283 in	0.708 in	15-2000 psi	Water	UV
4 NPS		4.987 in ²	[N] 2.52 in	0.781 in	15-1300 psi	Water	UV
4 NPS		7.032 in ²	[P] 2.992 in	0.94 in	15-1300 psi	Water	UV
6 NPS		12.914 in ²	[Q] 4.055 in	1.257 in	15-1000 psi	Water	UV
6 NPS		15.267 in ²	[R] 4.409 in	1.477 in	15-500 psi	Water	UV
8 NPS		28.126 in ²	[T] 5.984 in	1.88 in	15-500 psi	Water	UV
Design Name	: P3, P4, P5	5		NBCert ‡	¢ 92001		
Manufacturer/As	ssembler		Designato	ors	E	piration Date	
Assembler			UV		01	/07/2027	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establi Certified Value: 0 Media - Test: Air/ Set Pressure Def Blowdown Chara Flow Area Config Designed by: TRI	ve] P3, P4, P5 ec. UV at unknown I ishing Relieving Cap .876 Unitless 'Gas; Certified: Air, G inition: Pop cteristics: Adjustable uration: Nozzle/Full I ILLIUM Flow Techno	ab on June 5, pacity: Flow Ca Gas, Steam (Single Ring) Lift logies - France	1986 pacity, K sAS {SAR}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS		0.134 in ²	[D] 0.413 in	0.128 in	15-10000 psi	Air	UV
1-1.5 NPS		0.134 in ²	[D] 0.413 in	0.128 in	15-2900 psi	Steam	UV
1-1.5 NPS		0.273 in ²	[E] 0.59 in	0.183 in	15-2900 psi	Steam	UV
1-1.5 NPS		0.273 in ²	[E] 0.59 in	0.183 in	15-7500 psi	Air	UV
1.5 NPS		0.373 in ²	[F] 0.689 in	0.214 in	15-2900 psi	Steam	UV
1.5 NPS		0.373 in ²	[F] 0.689 in	0.214 in	15-6000 psi	Air	UV
1.5-2 NPS		0.589 in ²	[G] 0.866 in	0.268 in	15-2900 psi	Steam	UV
1.5-2 NPS		0.589 in ²	[G] 0.866 in	0.268 in	15-6000 psi	Air	UV
1.5-2 NPS		0.881 in²	[H] 1.059 in	0.328 in	15-2900 psi	Steam	UV
1.5-2 NPS		0.881 in²	[H] 1.059 in	0.328 in	15-5000 psi	Air	UV
2 NPS		1.457 in²	[J] 1.362 in	0.422 in	15-2900 psi	Steam	UV
2 NPS		1.457 in²	[J] 1.362 in	0.422 in	15-3200 psi	Air	UV
3 NPS		2.097 in ²	[K] 1.634 in	0.506 in	15-2900 psi	Steam	UV
3 NPS		2.097 in ²	[K] 1.634 in	0.506 in	15-3200 psi	Air	UV
3 NPS		3.284 in ²	[L] 2.045 in	0.634 in	15-2000 psi	Air	UV
3 NPS		3.284 in ²	[L] 2.045 in	0.634 in	15-2000 psi	Steam	UV
4 NPS		4.093 in ²	[M] 2.283 in	0.708 in	15-2000 psi	Air	UV
4 NPS		4.093 in ²	[M] 2.283 in	0.708 in	15-2000 psi	Steam	UV
4 NPS		4.987 in ²	[N] 2.52 in	0.781 in	15-1300 psi	Air	UV
4 NPS		4.987 in ²	[N] 2.52 in	0.781 in	15-1300 psi	Steam	UV
4 NPS		7.215 in ²	[P] 3.031 in	0.94 in	15-1300 psi	Air	UV
4 NPS		7.215 in ²	[P] 3.031 in	0.94 in	15-1300 psi	Steam	UV
6 NPS		12.914 in ²	[Q] 4.055 in	1.257 in	15-1000 psi	Air	UV

6 NPS	12.914 in²	[Q] 4.055 in	1.257 in	15-1000 psi	Steam	UV
6 NPS	17.818 in²	[R] 4.763 in	1.477 in	15-700 psi	Air	UV
6 NPS	17.818 in ²	[R] 4.763 in	1.477 in	15-700 psi	Steam	UV
8 NPS	28.871 in²	[T] 6.063 in	1.88 in	15-600 psi	Air	UV
8 NPS	28.871 in²	[T] 6.063 in	1.88 in	15-600 psi	Steam	UV
10 NPS	46.759 in ²	[V] 7.716 in	2.392 in	15-450 psi	Air	UV
10 NPS	46.759 in ²	[V] 7.716 in	2.392 in	15-450 psi	Steam	UV
12 NPS	70.108 in ²	[W] 9.448 in	2.93 in	15-450 psi	Air	UV
12 NPS	70.108 in ²	[W] 9.448 in	2.93 in	15-450 psi	Steam	UV

Design Name: STARFLOW-V	NBCert # 441	10
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	12/07/2027

Design Type

[Safety Valve] STARFLOW-V Capacity Tests: Sec. UV, V at National Board Testing Lab on April 26, 2017 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.876 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: TRILLIUM Flow Technologies - France SAS {SAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2, 3 NPS	0.373 in ²	[F] 0.689 in	0.172 in	30-2250 psi	Steam	UV, V
1.5-2 NPS	3 NPS	0.589 in ²	[G] 0.8661 in	0.217 in	30-2250 psi	Steam	UV, V
1.5-2 NPS	3 NPS	0.996 in ²	[H] 1.126 in	0.281 in	30-2250 psi	Steam	UV, V
3 NPS	4 NPS	1.457 in ²	[J] 1.3622 in	0.341 in	30-2250 psi	Steam	UV, V
3 NPS	4, 6 NPS	1.667 in ²	[K] 1.457 in	0.364 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	2.758 in ²	[L] 1.874 in	0.469 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	3.983 in ²	[M] 2.252 in	0.563 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	5.303 in ²	[N] 2.5984 in	0.65 in	30-2250 psi	Steam	UV, V
4 NPS	6 NPS	7.069 in ²	[P] 3 in	0.75 in	30-2250 psi	Steam	UV, V
6 NPS	8 NPS	10.148 in ²	[Q] 3.594 in	0.902 in	30-1494 psi	Steam	UV, V
6 NPS	8, 10 NPS	14.173 in ²	[R] 4.248 in	1.062 in	30-1494 psi	Steam	UV, V
8 NPS	10 NPS	23.997 in ²	[T] 5.528 in	1.382 in	30-740 psi	Steam	UV, V
10 NPS	14 NPS	38.485 in ²	[V] 7 in	1.75 in	30-740 psi	Steam	UV, V
12 NPS	2x12 NPS	55.438 in²	[W] 8.402 in	2.1 in	30-740 psi	Steam	UV, V
Design Name	: Starsteam	V Series		NBCert #	\$ 92034		

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	12/07/2027

[Safety Valve] Starsteam V Series Capacity Tests: Sec. UV, V at National Board Testing Lab on August 3, 2012 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift

Designed by: TRILLIUM Flow Technologies - France SAS {SAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	3 NPS	0.996 in ²	[1] 1.125 in	0.2835 in	15-6525 psi	Steam	UV, V
2 NPS	3 NPS	1.667 in ²	[2] 1.456 in	0.3661 in	15-6525 psi	Steam	UV, V
2.5-6 NPS	6 NPS	2.758 in ²	[3] 1.874 in	0.4685 in	15-6525 psi	Steam	UV, V
3 NPS	6 NPS	3.983 in ²	[4] 2.251 in	0.562 in	15-6525 psi	Steam	UV, V
4 NPS	6 NPS	5.303 in ²	[5] 2.598 in	0.6496 in	15-6525 psi	Steam	UV, V
4 NPS	6 NPS	7.069 in ²	[6] 3 in	0.752 in	15-3280 psi	Steam	UV, V
6 NPS	8 NPS	11.056 in ²	[Q] 3.751 in	0.9409 in	15-2798.5 psi	Steam	UV, V
6 NPS	10 NPS	15.904 in ²	[R] 4.5 in	1.126 in	15-1580 psi	Steam	UV, V
6 NPS	10 NPS	19.299 in ²	[RR] 4.957 in	1.239 in	15-1580 psi	Steam	UV, V
8 NPS	10 NPS	27.391 in ²	[T] 5.905 in	1.4764 in	15-1190 psi	Steam	UV, V

Elfab Limited (ELF)

North Shields, Tyne & Wear, NE29 8SDUnited Kingdom

This Company Manufactures or Assembles:

Design Name	: Double DS	C-OPR		NBCert #	# 880 2	28	
Manufacturer/As	ssembler		Designato	ors		Expiration Date	
Manufacturer			UD			05/18/2027	
Design Type							
HolderDesignatio Capacity Tests: S Certified Value: 2 Media - Test: Air/ Set Pressure Def Flow Area Config Designed by: Elfa	ice; Double HLD-REV ec. UD at Elfab Limit .380 Unitless; (altern Gas, Water/Liquid (k inition: Burst Pressu uration: ab Limited {ELF}	ted on March 1 ate medium): Kr test on Air/G e	7, 2021 0.000 as); Certified: Compre	ssible and Incompr	essible (Krgl)		
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.766 in ²			50-1523 psi		UD
1.5 NPS		1.63 in ²			27-1523 psi		UD
10 NPS		65.248 in ²			5-991 psi		UD
12 NPS		95.006 in ²			5-878 psi		UD
14 NPS		125.982 in ²			5-765 psi		UD

Nameplate Abbreviation: ELFAB

16 NPS	171.545 in²	4-652 psi	UD
18 NPS	213.795 in ²	4-539 psi	UD
2 NPS	2.789 in ²	14-1523 psi	UD
2.5 NPS	4.119 in ²	10-1305 psi	UD
20 NPS	259.735 in²	4-426 psi	UD
24 NPS	372.075 in²	4-200 psi	UD
26 NPS	424.74 in ²	4-191 psi	UD
28 NPS	492.6 in ²	4-182 psi	UD
3 NPS	6.722 in ²	7-1088 psi	UD
30 NPS	565.49 in²	4-173 psi	UD
32 NPS	643.3 in²	4-163 psi	UD
34 NPS	726.34 in ²	4-154 psi	UD
36 NPS	814.3 in ²	4-145 psi	UD
4 NPS	10.923 in ²	5-1440 psi	UD
40 NPS	1005.31 in²	4-136 psi	UD
6 NPS	23.322 in ²	5-1217 psi	UD
8 NPS	44.37 in ²	5-1104 psi	UD

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	08/06/2025

Design Type

[Rupture Disk Device] DSC-AGS

HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on January 20, 2004

Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 0.690 Unitless

Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl)

Set Pressure Definition: Burst Pressure

Flow Area Configuration: MNFA

Designed by: Elfab Limited {ELF}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.79 in ²	1 in		10-800 psi		UD
1.5 NPS		1.77 in ²	1.5 in		10-595 psi		UD
2 NPS		3.14 in ²	2 in		10-400 psi		UD
2.5 NPS		4.79 in ²	2.5 in		3-400 psi		UD
3 NPS		7.07 in ²	3 in		3-350 psi		UD
4 NPS		12.57 in ²	4 in		2-245 psi		UD
6 NPS		28.27 in ²	6 in		1.5-145 psi		UD
8 NPS		50.03 in ²	8 in		1-80 psi		UD
10 NPS		78.54 in²	10 in		1-70 psi		UD
12 NPS		113.1 in²	12 in		1-60 psi		UD
14 NPS		137.9 in ²	14 in		1-50 psi		UD
16 NPS		182.7 in ²	16 in		1-50 psi		UD

18 NPS		233.7 in ²	18 in			1-40 psi		UD
20 NPS		291 in²	20 in			1-30 psi		UD
Design Name	: DSC-FCD/	DCD			NBCert	# 8820	8	
Manufacturer/As	ssembler			Designato	ors	1	Expiration Date	
Manufacturer				UD			10/08/2026	
Design Type	Design Type							
[Rupture Disk Device] DSC-FCD/DCD HolderDesignation: HLD-STD Capacity Tests: Sec. UD at National Board Testing Lab on January 28, 2014 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 3.940 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Elfab Limited {ELF}								
Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.42 in ²				15-522 psi	Air	UD
1.5 NPS		1.12 in ²				10-522 psi	Air	UD
10 NPS		43.53 in ²				5-290 psi	Air	UD
12 NPS		73.3 in²				5-248 psi	Air	UD
14 NPS		100.84 in²				5-235 psi	Air	UD
16 NPS		132.21 in ²				5-222 psi	Air	UD
18 NPS		167.1 in²				1-209 psi	Air	UD
2 NPS		1.86 in ²				10-522 psi	Air	UD
2.5 NPS		2.96 in ²				10-522 psi	Air	UD
20 NPS		206.81 in ²				1-197 psi	Air	UD
22 NPS		247.7 in ²				1-184 psi	Air	UD
24 NPS		294.4 in²				1-171 psi	Air	UD
26 NPS		346.55 in ²				1-158 psi	Air	UD
28 NPS		408.06 in ²				1-145 psi	Air	UD
3 NPS		5.29 in ²				10-522 psi	Air	UD
30 NPS		459.57 in ²				1-145 psi	Air	UD
32 NPS		527.47 in ²				1-145 psi	Air	UD
34 NPS		593.93 in ²				1-145 psi	Air	UD
36 NPS		655.72 in ²				1-145 psi	Air	UD
38 NPS		742.45 in ²				1-145 psi	Air	UD
4 NPS		7.34 in ²				10-522 psi	Air	UD
40 NPS		811.36 in ²				1-145 psi	Air	UD
42 NPS		907.54 in ²				1-145 psi	Air	UD
44 NPS		983.56 in ²				1-145 psi	Air	UD
46 NPS		1089.18 in ²				1-145 psi	Air	UD
48 NPS		1172.32 in ²				1-145 psi	Air	UD
6 NPS		14.34 in²				10-494 psi	Air	UD

8 NPS		26.63 in ²					5-378 psi	Air	UD
Design Name	e: DSC-OFS					NBCert #	\$ 881	63	
Manufacturer/A	ssembler			Designat	ors			Expiration Date	
Manufacturer				UD				01/22/2026	
Design Type									
[Rupture Disk De HolderDesignati Capacity Tests: \$ Method of Estab Certified Value: (Media - Test: Ain Set Pressure De Flow Area Config Designed by: Elf	evice] DSC-OFS on: HLD-REV, HLD-S Sec. UD at Elfab Limi lishing Relieving Cap 0.850 Unitless r/Gas, Water/Liquid (I finition: Burst Pressu guration: MNFA iab Limited {ELF}	SAN, HLD-SAN ited on January pacity: Resistar Kr test on Air/G ire	(W) / 17, 2020 ice Factor, ias); Certifi	3 Size, Krg ed: Compre	ıl əssible	and Incompre	essible (Krgl)		
Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia.	Lift		Set Pressure Range	Media	Designator
1 in		0.5 in ²					18-145 psi		UD
1 NPS		0.7 in ²					18-145 psi		UD
1.5 in		1.24 in ²					14-130 psi		UD
1.5 NPS		1.74 in ²					14-130 psi		UD
2 in		2.37 in ²					10-116 psi		UD
2 NPS		2.95 in ²					10-116 psi		UD
2.5 in		3.87 in ²					7-116 psi		UD
2.5 NPS		4.2 in ²					7-116 psi		UD
3 in		5.71 in ²					6-101.5 psi		UD
3 NPS		6.52 in ²					6-101.5 psi		UD
4 in		10.46 in ²					5-101.5 psi		UD
4 NPS		11.53 in ²					5-101.5 psi		UD
6 in		23.79 in ²					5-40 psi		UD
6 NPS		26.17 in ²					5-40 psi		UD
Design Name	e: DSC-OPR					NBCert #	\$ 881	85	
Manufacturer/A	ssembler			Designat	ors			Expiration Date	
Manufacturer				UD				01/28/2026	
Design Type									
[Rupture Disk De HolderDesignation Capacity Tests: 5 Method of Estab Certified Value: 7 Media - Test: Ain Set Pressure De Flow Area Config Designed by: Elf	evice] DSC-OPR on: HLD-REV, HLD-S Sec. UD at National E lishing Relieving Cap 1.740 Unitless r/Gas, Water/Liquid (I finition: Burst Pressu guration: MNFA ab Limited {ELF}	SAN, HLD-SAN Board Testing L bacity: Resistar Kr test on Air/G ire	(W) ab on Apri ice Factor, ias); Certifi	l 30, 2013 3 Size, Krg ed: Compre	l essible	and Incompre	essible (Krgl)		
Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia.	Lift		Set Pressure Range	Media	Designator
1 in	1 in	0.461 in²	0.87 in				50-1500 psi		UD

1 NPS		0.923 in ²			14-70 psi		UD	
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
[Rupture Disk De HolderDesignatic Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Flow Area Config Designed by: Elf	Design Type [Rupture Disk Device] DSC-OPS HolderDesignation: OP Capacity Tests: Sec. UD at National Board Testing Lab on August 4, 2006 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 0.800 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Elfab Limited {ELF}							
Design Type						DOIZOIZO		
Manufacturer/A	ssempler					xpiration Date		
	;. DOC-OFO	_	Designate		+ 0014	l	_	
Decian Name				NRCort -	# <u>88</u> 1 <i>11</i>	1		
40 NPS	40 NPS	1005.31 in ²	40 in		4-136 psi	Air	UD	
36 NPS	36 NPS	814.3 in ²	36 in		4-145 psi	Air	UD	
34 NPS	34 NPS	726.34 in ²	34 in		4-154 psi	Air	UD	
32 NPS	32 NPS	643.3 in ²	32 in		4-163 psi	Air	UD	
30 NPS	30 NPS	565.49 in ²	30 in		4-173 psi	Air	UD	
28 NPS	20 NPS	492 6 in ²	28 in		4-182 nsi	Air		
24 NPS	24 NPS	424 74 in ²	23.9 m		4-200 psi	Δir		
20 NPS	20 NF 3	209.700 III ⁻	20 m		4-920 psi	Δir		
20 NPS		210.790 III ⁻	20 in		4-009 psi	Air		
18 NPS		213 705 in ²	18 in		4-530 nei	Δir		
14 INF 3		171 5/5 in ²	14.1 III		J-700 psi	Air		
		90.000 IN ²	12.2 If		5-8/8 psi	Alf		
		05.248 IN ²	10.2 III		5 979 poi	Air		
		44.37 IN ²	ο. 18 IN		5-1104 psi	Air		
		23.309 in ²	6.14 IN		5-1217 psi	Air		
6 in	6 in	21.03 in ²	5.78 in		5-650 psi	A :-		
4 NPS	4 NPS	10.923 in ²	4.11 in		5-1440 psi	Air	UD	
4 in	4 in	8.923 in ²	3.83 in		13-1000 psi		UD	
3 NPS	3 NPS	6.722 in ²	3.35 in		7-1088 psi	Air	UD	
3 in	3 in	5.041 in ²	2.87 in		13-1000 psi		UD	
2.5 NPS	2.5 NPS	4.119 in ²	2.61 in		10-1305 psi	Air	UD	
2.5 in	2.5 in	3.484 in ²	2.37 in		13-1000 psi		UD	
2 NPS	2 NPS	2.789 in ²	2.13 in		14-1523 psi	Air	UD	
2 in	2 in	2.132 in ²	1.87 in		13-1000 psi		UD	
1.5 NPS	1.5 NPS	1.651 in²	1.63 in		27-1523 psi	Air	UD	
1.5 in	1.5 in	1.146 in ²	1.37 in		50-1500 psi		UD	
1 NPS	1 NPS	0.766 in ²	1.12 in		50-1523 psi	Air	UD	

1.5 NPS	1.996 in ²	6-60 psi	UD
10 NPS	76.838 in ²	2-30 psi	UD
12 NPS	112.854 in²	2-30 psi	UD
2 NPS	3.387 in ²	5-50 psi	UD
2.5 NPS	4.97 in ²	5.5-45 psi	UD
3 NPS	8.114 in ²	2.5-35 psi	UD
4 NPS	12.914 in ²	2-30 psi	UD
6 NPS	27.661 in ²	2-30 psi	UD
8 NPS	52.007 in ²	2-30 psi	UD

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	11/17/2027

Design Type

[Rupture Disk Device] OPR

HolderDesignation: OPR Capacity Tests: Sec. UD at National Board Testing Lab on March 25, 2003 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl

Certified Value: 1.190 Unitless

Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl)

Set Pressure Definition: Burst Pressure

Flow Area Configuration: MNFA Designed by: Elfab Limited {ELF}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.766 in ²			50-1523 psi		UD
1.5 NPS		1.651 in²			27-1523 psi		UD
10 NPS		65.248 in²			5-720 psi		UD
12 NPS		95.006 in ²			5-720 psi		UD
14 NPS		125.982 in ²			4-261 psi		UD
16 NPS		171.545 in ²			4-150 psi		UD
18 NPS		213.795 in ²			4-135 psi		UD
2 NPS		2.789 in ²			14-1523 psi		UD
2.5 NPS		4.119 in ²			10-1305 psi		UD
20 NPS		259.735 in ²			4-131 psi		UD
24 NPS		372.075 in ²			4-131 psi		UD
26 NPS		424.74 in ²			4-131 psi		UD
28 NPS		492.6 in ²			4-131 psi		UD
3 NPS		6.722 in ²			7-1088 psi		UD
30 NPS		565.49 in ²			4-131 psi		UD
32 NPS		642.4 in ²			4-131 psi		UD
34 NPS		726.34 in ²			4-131 psi		UD
36 NPS		814.3 in ²			4-131 psi		UD
4 NPS		10.923 in ²			5-1440 psi		UD
40 NPS		1005.31 in²			4-131 psi		UD

6 NPS	23.309 in ²	5-870 psi	UD
8 NPS	44.37 in ²	5-720 psi	UD

EMERSON PROCESS MANAGEMENT S.A. DE C.V. (EMP)

Toluca Edo, 50223Mexico

This Company Manufactures or Assembles:

Design Name	e: 243/249/44 49/8043/80	43/449/546 049	/843/849/943/504	^{46/50} NBCert :	# 01292			
Manufacturer/A	ssembler		Designato	ors	Ex	Expiration Date		
Assembler			UV		09	/29/2027		
Design Type								
[Pilot Operated Pressure Relief Valve] 243/249/443/449/546/843/849/943/5046/5049/8043/8049 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on August 8, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-15000 psi	Air	UV	
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-720 psi	Steam	UV	
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	15-10600 psi	Air	UV	
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	25-720 psi	Steam	UV	
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-15000 psi	Air	UV	
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-720 psi	Steam	UV	
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-10600 psi	Air	UV	
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-720 psi	Steam	UV	
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-10600 psi	Air	UV	
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-720 psi	Steam	UV	
6 NPS	8, 10 NPS	18.597 in ²	[R] 4.866 in	2.435 in	15-10600 psi	Air	UV	
6 NPS	8, 10 NPS	18.597 in ²	[R] 4.866 in	2.435 in	15-720 psi	Steam	UV	
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-10600 psi	Air	UV	
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-720 psi	Steam	UV	
Design Name	e: 253/259/44 53/8059	53/459/853	/859/953/959/50	^{59/80} NBCert :	# 01304			

Nameplate Abbreviation: EPM TOL

[Pilot Operated Pressure Relief Valve] 253/259/453/459/853/859/953/959/5059/8053/8059 Capacity Tests: Sec. UV at unknown lab on July 31, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.627 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.205 in ²	[D] 0.674 in	0.079 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-15000 psi	Air	UV
1.5 NPS	2, 3 NPS	0.831 in²	[G] 1.078 in	0.241 in	15-10600 psi	Air	UV
2 NPS	3 NPS	0.85 in ²	[G] 1.38 in	0.191 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.312 in ²	[H] 1.38 in	0.295 in	15-15000 psi	Air	UV
3 NPS	4 NPS	3.043 in ²	[K] 2.055 in	0.461 in	15-10600 psi	Air	UV
3 NPS	3 NPS	2.132 in ²	[J] 2.055 in	0.323 in	15-10600 psi	Air	UV
4 NPS	6 NPS	4.729 in ²	[L] 3.12 in	0.477 in	15-10600 psi	Air	UV
4 NPS	6 NPS	5.959 in ²	[M] 3.12 in	0.601 in	15-10600 psi	Air	UV
4 NPS	6 NPS	7.188 in ²	[N] 3.12 in	0.725 in	15-10600 psi	Air	UV
6 NPS	8, 10 NPS	18.294 in ²	[Q] 4.866 in	1.185 in	15-10600 psi	Air	UV

Design Name:

443/449/546/843/849/943/949/5046/5049

NBCert #

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/30/2027

Design Type

[Pilot Operated Pressure Relief Valve] 443/449/546/843/849/943/949/5046/5049(Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.767 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Orifice Set Pressure **Inlet Size Outlet Size** Flow Area Lift Media Designator [designator] dia. Range 1-1.5 NPS 2 NPS 0.357 in² [F] 0.674 in 0.21 in 15-7600 psi Water UV 1.5 NPS 2, 3 NPS 0.913 in² [H] 1.078 in 0.51 in 15-7600 psi Water UV 2 NPS 3 NPS 1.496 in² 15-7600 psi Water UV [J] 1.38 in 0.82 in 3 NPS 4 NPS 3.317 in² 1.155 in Water UV [L] 2.055 in 15-7600 psi 6 NPS 7.069 in² Water UV 4 NPS [P] 3 in 1.62 in 15-7600 psi 6 NPS 8, 10 NPS 15.904 in² [R] 4.5 in 2.435 in 15-7600 psi Water UV 8 NPS 10 NPS 28.274 in² [T] 6 in 3.12 in 15-7600 psi Water UV

					_			
Manufacturer/A	ssembler		Designa	ators		Expiration Date		
Assembler			UV			09/29/2027		
Design Type								
[Pilot Operated Pressure Relief Valve] 453/459/853/859/953/959/5059 (Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.491 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	UV	
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	V	
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	UV	
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	V	
1.5 NPS	2, 3 NPS	0.911 in ²	[G] 1.078 in	0.264 in	15-7600 psi	Water	UV	
1.5 NPS	2, 3 NPS	0.911 in ²	[G] 1.078 in	0.264 in	15-7600 psi	Water	V	
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	UV	
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	V	
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	UV	
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	V	
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	UV	
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	V	
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	UV	
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	V	
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	V	
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	V	
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	V	
6 NPS	8, 10 NPS	15.885 in²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	UV	
6 NPS	8, 10 NPS	15.885 in²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	V	
Design Name: 81, 81P, 83, 86				NBCert	# 010	89		
Manufacturer/A	ssembler		Designa	ators		Expiration Date		
Assembler						09/29/2027		

[Safety Relief Valve] 81, 81P, 83, 86 Capacity Tests: Sec. UV at Phillips Petroleum on July 8, 1965 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.816 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-2 NPS	.75 - 2 NPS	0.012 in ²	[-2] 0.125 in	0.05 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2 NPS	0.028 in ²	[-3] 0.188 in	0.06 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-5000 psi	Air	NV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-720 psi	Steam	UV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-5000 psi	Air	NV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-9600 psi	Air	UV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-5000 psi	Air	NV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-6000 psi	Air	UV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-720 psi	Steam	UV
1.5 NPS	2 NPS	0.307 in ²	[F] 0.625 in	0.28 in	20-4040 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-6000 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-720 psi	Steam	UV
1.5-2 NPS	3 NPS	0.785 in ²	[H] 1 in	0.41 in	20-2580 psi	Air	UV
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-1620 psi	Air	UV
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-720 psi	Steam	UV

Design Name: 900 Series (Liquid), 7700, 3

1549

15499

Manufacturer/Assembler				Designators			Expiration Date		
Assembler			UV			09/30/2027			
Design Type									
[Relief Valve] 900 Series (Liquid), 7700, SNC Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 9, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.661 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}									
Inlet Size	Outlet Size	Flow Area	Orifice [designat	or] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.26	5 in	0.074 in	15-10000 psi	Water	NV	
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.26	5 in	0.074 in	15-10000 psi	Water	UV, V	
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328	in	0.106 in	15-10000 psi	Water	NV	
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328	in	0.106 in	15-10000 psi	Water	UV, V	
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398	in	0.128 in	15-10000 psi	Water	NV	

0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	NV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	UV, V
1-1.5 NPS	1.5 - 2 NPS	0.2951 in²	0.613 in	0.265 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	NV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV, V
1.5 NPS	2.5 NPS	0.5674 in²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	NV
1.5 NPS	2.5 NPS	0.5674 in²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV, V
Design Nam	e: 900 Series	s, 7700, SN	IC	NBCert	# 15411		
Manufacturer/A	Assembler		Designate	ors	E	xpiration Date	9
Assembler			UV		09	9/28/2027	
Design Type							
Method of Estat Certified Value:	olishing Relieving Cap 0.878 Unitless	pacity: Flow Ca	apacity, K				
Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	efinition: Pop acteristics: Fixed iguration: Nozzle/Full merson Automation S	Lift solutions Final (Control US LP {AGC}				
Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	acteristics: Fixed iguration: Nozzle/Full merson Automation S	Lift colutions Final (Flow Area	Control US LP {AGC} Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Netua ² , Certine Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS	efinition: Pop acteristics: Fixed iguration: Nozzle/Full merson Automation S Outlet Size .5 - 1 NPS	Lift colutions Final (Flow Area 0.0551 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in	Lift 0.074 in	Set Pressure Range 15-10000 psi	Media Air	Designator UV
Inlet Size 0.5-1 NPS	.5 - 1 NPS	Lift Folutions Final (Flow Area 0.0551 in ² 0.0551 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in	Lift 0.074 in 0.074 in	Set Pressure Range 15-10000 psi 15-2900 psi	Media Air Steam	Designator UV NV, UV
Inlet Size 0.5-1 NPS 0.5-1 NPS	outlet Size .5 - 1 NPS .5 - 1 NPS .5 - 1 NPS .5 - 1 NPS	Lift solutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in	Lift 0.074 in 0.074 in 0.106 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi	Media Air Steam Air	Designator UV NV, UV UV
Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS	Lift colutions Final (Flow Area 0.0551 in ² 0.0845 in ² 0.0845 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in	Set Pressure Range Image 15-10000 psi Image 15-2900 psi Image 15-2900 psi Image 15-2900 psi Image	Media Air Steam Air Steam	Designator UV NV, UV UV UV
Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	Outlet Size .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS	Lift colutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-2900 psi 15-2900 psi	Media Air Steam Air Steam Steam	Designator UV NV, UV UV NV, UV NV, UV
Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	Outlet Size .5 - 1 NPS 1 - 1.5 NPS	Lift colutions Final (Flow Area 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ²	Orifice [designator] dia. [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi	Media Air Steam Air Steam Air Air	Designator UV NV, UV UV UV NV, UV UV NV, UV NV, UV NV, UV NV, UV NV, UV
Interface Pressure Des Blowdown Char Flow Area Confi Designed by: Er Inter Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS	Outlet Size .5 - 1 NPS 1 - 1.5 NPS	Lift colutions Final (Flow Area 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#6] 0.398 in [#7] 0.529 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi	Media Air Steam Air Steam Air Steam	Designator UV NV, UV UV VUV NV, UV
Inlet Size Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS 1-1.5 NPS	Outlet Size .5 - 1 NPS .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	Lift colutions Final (Flow Area 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ²	Orifice (designator) dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#6] 0.398 in [#7] 0.529 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Steam	Designator UV NV, UV UV VU NV, UV NV, UV NV, UV NV, UV UV
Inlet Size Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS	Outlet Size .5 - 1 NPS .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1.5 NPS 1.5 NPS 2 NPS	Lift colutions Final (Flow Area 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ² 0.2198 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#6] 0.398 in [#7] 0.529 in [#7] 0.529 in [#8] 0.665 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in 0.17 in	Set Pressure 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Steam Air Steam	Designator UV NV, UV UV NV, UV NV, UV NV, UV UV NV, UV
Inlet Size Blowdown Char Flow Area Confi Designed by: Er 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1.5-2 NPS 1.5-2 NPS	Outlet Size .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 2 NPS 2 NPS	Lift colutions Final of Flow Area 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ² 0.2198 in ² 0.3473 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#6] 0.398 in [#7] 0.529 in [#7] 0.529 in [#8] 0.665 in [#8] 0.665 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in 0.215 in	Set Pressure 15-10000 psi 15-2900 psi 15-5000 psi 15-2900 psi	Media Air Steam Air Steam Steam Steam Air Steam Air Steam	Designator UV NV, UV UV NV, UV NV, UV NV, UV UV NV, UV UV NV, UV UV VU VU VU UV UV UV VU UV
Inlet Size Blowdown Char Flow Area Confi Designed by: Er 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1.5-1 NPS 1.5-2 NPS 1.5-2 NPS 1.5 NPS	Outlet Size .5 - 1 NPS .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 .5 NPS 2 NPS 2 NPS 2.5 NPS	Lift olutions Final 0 Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ² 0.2198 in ² 0.3473 in ² 0.3473 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#7] 0.529 in [#7] 0.529 in [#8] 0.665 in [#9] 0.85 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in 0.17 in 0.215 in 0.215 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-5000 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi	MediaAirSteamAirSteamAirSteamSteamSteamAirSteamAirSteamSteamSteamSteamSteam	Designator UV NV, UV UV NV, UV NV, UV NV, UV UV

Design Name: JLT/JLT-JDS (Liquids)

Cert #

15095

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/30/2027

[Safety Relief Valve] JLT/JLT-JDS (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 5, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.656 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	NV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	NV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	NV
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	NV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	UV, V
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	NV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	UV, V
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	NV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	UV, V
3 NPS	4-6 NPS	2.109 in ²	1.639 in	0.632 in	15-3705 psi	Water	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	NV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	UV, V
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	NV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	UV, V
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	NV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	NV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	1.232 in	15-1500 psi	Water	UV, V
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Water	UV, V
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	NV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	UV, V
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	NV
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in²	[T2] 6.33 in	2.444 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	NV

Design Nam	e: JOS-E/JB E, 8400,	S-E/JOS-H AC/AB	-E/JBS-H-E/JOS-	-JDS- NBCert a	# 15208			
Manufacturer/A	Assembler		Designate	ors	E	xpiration Date		
Assembler			UV		09	9/28/2027		
Design Type								
Jossign Type [Safety Relief Valve] JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-E, 8400, AC/AB Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on April 1, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.865 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75-1.5 NPS	2 - 3 NPS	0.1244 in²	[D] 0.398 in	0.121 in	15-15000 psi	Air	NV, UV	
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.121 in	15-2000 psi	Steam	NV, UV	
1-1.5 NPS	2 - 3 NPS	0.187 in²	0.488 in	0.151 in	15-2000 psi	Steam	UV	
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.151 in	15-8490 psi	Air	UV	
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-15000 psi	Air	NV, UV	
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-2000 psi	Steam	NV, UV	
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-15000 psi	Air	NV, UV	
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-2000 psi	Steam	NV, UV	
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.265 in	15-15000 psi	Air	NV, UV	
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.265 in	15-2000 psi	Steam	NV, UV	
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.331 in	15-15000 psi	Air	NV, UV	
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.331 in	15-2000 psi	Steam	NV, UV	
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-10000 psi	Air	NV, UV	
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-2000 psi	Steam	NV, UV	
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-10000 psi	Air	NV, UV	
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-2000 psi	Steam	NV, UV	
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-1000 psi	Steam	NV, UV	
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-3000 psi	Air	NV, UV	
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-2000 psi	Steam	NV, UV	
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-5000 psi	Air	NV, UV	
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-2000 psi	Steam	NV, UV	
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-5000 psi	Air	NV, UV	
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-1480 psi	Steam	NV, UV	
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-3000 psi	Air	NV, UV	
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Air	NV, UV	

0.85 in

0.945 in

0.945 in

1.243 in

15-2250 psi

15-1480 psi

15-3000 psi

15-1000 psi

4 NPS

4 NPS

4 NPS

6 NPS

6 NPS

6 NPS

6 NPS

8 NPS

2.633 in

[P] 3.029 in

[P] 3.029 in

3.75 in

5.444 in²

7.206 in²

7.206 in²

11.045 in²

NV, UV

NV, UV

NV, UV

NV, UV

Steam

Steam

Steam

Air

6 NPS	8 NPS	11.045 in ²	3.75 in	1.243 in	15-3750 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Steam	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Air	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-1480 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-3000 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Steam	NV, UV
8 NPS	10 NPS	18.254 in ²	4.821 in	1.907 in	15-2250 psi	Air	NV, UV
8 NPS	10 NPS	18.254 in ²	4.821 in	1.907 in	15-2250 psi	Steam	NV, UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	1.907 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	1.907 in	15-740 psi	Steam	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Steam	NV, UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Air	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Steam	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Air	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Steam	UV

Fainger LESER Valves Pvt. Ltd. (FLV)

Maharashtra, 431 148India

This Company Manufactures or Assembles:

Design Name	e: 237, 237IC	c, 237CC		NBCert	# 3732	25		
Manufacturer/A	ssembler	Designate	ors		Expiration Dat	e		
Manufacturer	Manufacturer l					08/21/2024		
Design Type								
[Safety Relief Valve] 237, 237IC, 237CC Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on August 14, 2017 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.987 SCFM/PSIA; (alternate medium): 2.773 PPH/PSIA Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: LESER GmbH & Co. KG (LES)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.375-1 NPS	0.5-1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Air	UV	
0.375-1 NPS	0.5-1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Steam	UV	

Nameplate Abbreviation: FAINGER LESER

Design Name	e: 237, 237IC	C, 237CC (L	_iquid)	NBCert	# 3733	6		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer			UV			08/21/2024		
Design Type								
[Relief Valve] 22 Capacity Tests: 2 Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	37, 237IC, 237CC (Li Sec. UV at Leser Gm lishing Relieving Cap 1.591 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Curtain Area SER GmbH & Co. K	quid) lbh & Co., KG (pacity: Flow Ca 2SID Liquid Stream G {LES}	on August 14, 2017 pacity, Flow Factor					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	0.5-1 NPS	0.058 in ²	0.394 in	0.039 in	15-2610 psi	Water	UV	
Design Name: 459/462 NBCert # 37112								
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer			UV			06/15/2027		
Design Type								
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Nve] 459/462 Sec. UV at National E dishing Relieving Cap 0.811 Unitless r/Gas, Steam; Certific finition: Initial Audible acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K	Board Testing L bacity: Flow Ca ed: Air, Gas, St e Discharge Lift G {LES}	ab on February 17, 19 pacity, K eam	997				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-13780 psi	Air	UV	
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-2900 psi	Steam	UV	
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-2068 psi	Steam	UV	
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-6175 psi	Air	UV	
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-1965 psi	Steam	UV	
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-2940 psi	Air	UV	
1-2 NPS	1.5 - 2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Air	UV	
1-2 NPS	1.5 - 2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Steam	UV	
Design Name	e: 459/462 lic	quids		NBCert	# 3710	1		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer						06/15/2027		

[Relief Valve] 459/462 liquids Capacity Tests: Sec. UV at National Board Testing Lab on January 29, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.566 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.8125 NPS	1-2 NPS	0.0438 in²	0.236 in	0.043 in	15-13780 psi	Water	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-6175 psi	Water	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-2940 psi	Water	UV
1-2 NPS	1.5-2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Water	UV

Design Name: 5

NBCert #

37224

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	06/15/2027

Design Type

[Safety Relief Valve] 526

Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 22, 2001 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-2900 psi	Steam	UV
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-6000 psi	Air	UV
1.5-1.5 NPS	2,3 NPS	0.394 in ²	[F] 0.709 in	0.217 in	15-2900 psi	Steam	UV
1.5-1.5 NPS	2,3 NPS	0.394 in ²	[F] 0.709 in	0.217 in	15-5000 psi	Air	UV
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-3705 psi	Air	UV
1.5-2 NPS	3 NPS	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Air	UV
1.5-2 NPS	3 NPS	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Steam	UV
2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-2900 psi	Steam	UV
2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-4134 psi	Air	UV
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-2900 psi	Steam	UV
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-3700 psi	Air	UV
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Air	UV
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Steam	UV
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Air	UV
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Steam	UV
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Air	UV

4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Steam	UV
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Air	UV
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Steam	UV
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Air	UV
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Steam	UV
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Air	UV
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Steam	UV
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Air	UV
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Steam	UV
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Air	UV
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Steam	UV
Design Name	e: 526 (Liquio	ds)		NBCert #	# 37235		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			UV		06	/15/2027	
Design Type							
Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on January 2, 2002 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.579 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG (LES)							
Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K	Liquid Stream Lift G {LES}					
Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ki Outlet Size	Liquid Stream Lift G {LES} Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ko Outlet Size 2,3 NPS	Liquid Stream G {LES} Flow Area 0.239 in ²	Orifice [designator] dia. [E] 0.551 in	Lift 0.138 in	Set Pressure Range 15-6000 psi	Media Water	Designator UV
Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in	Lift 0.138 in 0.217 in	Set Pressure Range15-6000 psi15-5000 psi	Media Water Water	Designator UV UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in	Lift 0.138 in 0.217 in 0.268 in	Set Pressure Range 15-6000 psi 15-5000 psi 15-3705 psi	Media Water Water Water	Designator UV UV UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2,3 NPS 3 NPS 3 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [H] 1.114 in	Lift 0.138 in 0.217 in 0.268 in 0.323 in	Set Pressure Range 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi	Media Water Water Water Water	Designator UV UV UV UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3,4 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [H] 1.114 in [J] 1.417 in	Lift 0.138 in 0.217 in 0.268 in 0.323 in 0.453 in	Set Pressure Range 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi 15-4134 psi	Media Water Water Water Water Water	Designator UV UV UV UV UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3,4 NPS 4,6 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [G] 1.114 in [J] 1.417 in [K] 1.693 in	Lift 0.138 in 0.217 in 0.268 in 0.323 in 0.453 in 0.532 in	Set Pressure 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi 15-4134 psi 15-3700 psi	Media Water Water Water Water Water Water	Designator UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS 3-4 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ki Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3,4 NPS 4,6 NPS 4,6 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [H] 1.114 in [J] 1.417 in [K] 1.693 in [L] 2.106 in	Lift 0.138 in 0.217 in 0.268 in 0.323 in 0.453 in 0.532 in 0.6698 in	Set Pressure Range I 15-6000 psi I 15-5000 psi I 15-3705 psi I 15-2750 psi I 15-4134 psi I 15-3700 psi I 15-3700 psi I	Media Water Water Water Water Water Water	Designator UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS 3-4 NPS 4 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ko Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3,4 NPS 3,4 NPS 4,6 NPS 4,6 NPS 6 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [H] 1.114 in [J] 1.417 in [L] 2.106 in [L] 2.374 in	Lift 0.138 in 0.217 in 0.268 in 0.323 in 0.453 in 0.532 in 0.6698 in 0.768 in	Set Pressure Range Image 15-6000 psi Image 15-5000 psi Image 15-3705 psi Image 15-2750 psi Image 15-4134 psi Image 15-3700 psi Image 15-1830 psi Image 15-1100 psi Image	Media Water Water Water Water Water Water Water	Designator UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 2-3 NPS 3 NPS 3-4 NPS 4 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3,4 NPS 4,6 NPS 4,6 NPS 6 NPS 6 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ² 5.302 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [H] 1.114 in [J] 1.417 in [K] 1.693 in [L] 2.106 in [M] 2.374 in [N] 2.598 in	Lift 0.138 in 0.217 in 0.268 in 0.323 in 0.453 in 0.453 in 0.532 in 0.6698 in 0.6698 in 0.768 in	Set Pressure 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi 15-4134 psi 15-3700 psi 15-1830 psi 15-1100 psi 15-2760 psi	Media Water Water Water Water Water Water Water Water Water	Designator UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 2-3 NPS 3 NPS 3-4 NPS 4 NPS 4 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ki Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3,4 NPS 4,6 NPS 4,6 NPS 6 NPS 6 NPS 6 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ² 5.302 in ²	Orifice (designator) dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [G] 1.417 in [J] 1.417 in [K] 1.693 in [L] 2.106 in [M] 2.374 in [M] 2.598 in [P] 3.15 in	Lift 0.138 in 0.217 in 0.268 in 0.268 in 0.323 in 0.453 in 0.532 in 0.6698 in 0.6698 in 0.768 in 0.827 in 1.036 in	Set Pressure 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi 15-4134 psi 15-3700 psi 15-1830 psi 15-1830 psi 15-2760 psi 15-1400 psi 15-1400 psi	MediaWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWaterWater	Designator UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE 1.1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS 3-4 NPS 4 NPS 4 NPS 4 NPS 6 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ki Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3 NPS 3,4 NPS 4,6 NPS 4,6 NPS 6 NPS 6 NPS 6 NPS 8 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ² 5.302 in ² 7.79 in ²	Orifice (designator) dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [G] 0.886 in [J] 1.114 in [J] 1.417 in [J] 1.417 in [K] 1.693 in [K] 1.593 in [L] 2.106 in [M] 2.374 in [M] 3.15 in [Q] 4.154 in	Lift 0.138 in 0.217 in 0.268 in 0.268 in 0.323 in 0.453 in 0.453 in 0.532 in 0.6698 in 0.6698 in 0.768 in 0.827 in 1.036 in 1.249 in	Set Pressure 15-6000 psi 15-5000 psi 15-3705 psi 15-3705 psi 15-3700 psi 15-4134 psi 15-3700 psi 15-1830 psi 15-1830 psi 15-1400 psi 15-1400 psi 15-1400 psi 15-1038.5 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS 3 NPS 3 NPS 4 NPS 4 NPS 4 NPS 6 NPS 6 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. Ko Outlet Size 2,3 NPS 2,3 NPS 3, NPS 3, NPS 3,4 NPS 3,4 NPS 4,6 NPS 6 NPS 6 NPS 6 NPS 8 NPS 8 NPS 8 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ² 5.302 in ² 7.79 in ² 13.548 in ² 19.325 in ²	Orifice (designator) dia. (E) 0.551 in (F) 0.709 in (F) 0.709 in (G) 0.886 in (H) 1.114 in (J) 1.417 in (L) 2.106 in (K) 1.693 in (M) 2.374 in (N) 2.598 in (P) 3.15 in (Q) 4.154 in (R) 4.961 in	Lift 0.138 in 0.217 in 0.268 in 0.323 in 0.453 in 0.453 in 0.532 in 0.6698 in 0.768 in 0.768 in 1.036 in 1.249 in 1.497 in	Set Pressure 15-6000 psi 15-5000 psi 15-5700 psi 15-3705 psi 15-4134 psi 15-3700 psi 15-1830 psi 15-1830 psi 15-2760 psi 15-1100 psi 15-1400 psi 15-1038.5 psi 15-1000 psi	MediaWater	Designator UV UV
Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 2-3 NPS 2-3 NPS 3 NPS 3-4 NPS 4 NPS 4 NPS 6 NPS 6 NPS 6 NPS	ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2,3 NPS 2,3 NPS 3 NPS 3 NPS 3 NPS 3,4 NPS 4,6 NPS 4,6 NPS 6 NPS 6 NPS 6 NPS 8 NPS 8 NPS 10 NPS	Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ² 5.302 in ² 13.548 in ² 13.548 in ² 19.325 in ²	Orifice [G] 0.551 in [F] 0.709 in [G] 0.886 in [G] 0.886 in [H] 1.114 in [J] 1.417 in [K] 1.693 in [K] 1.693 in [K] 1.693 in [H] 2.374 in [N] 2.598 in [P] 3.15 in [Q] 4.154 in [R] 4.961 in [R] 4.961 in	Lift 0.138 in 0.217 in 0.268 in 0.268 in 0.323 in 0.453 in 0.453 in 0.532 in 0.6698 in 0.6698 in 0.6698 in 0.827 in 1.036 in 1.249 in 1.497 in	Set Pressure 15-6000 psi 15-5000 psi 15-3705 psi 15-2750 psi 15-4134 psi 15-3700 psi 15-3700 psi 15-1830 psi 15-1100 psi 15-1400 psi 15-100 psi 15-100 psi 15-100 psi 15-100 psi 15-100 psi	MediaWater	Designator UV UV

Design Name	e: 526D				NBCert #	37246	6		
Manufacturer/A	ssembler		Design	ators		E	Expiration Date		
Manufacturer						C	06/15/2027		
Design Type									
[Safety Relief Va Capacity Tests: S Method of Establ Certified Value: 1 Media - ; Certifie Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Ive] 526D Sec. UV at Leser Gm lishing Relieving Cap I.990 SCFM/PSIA; (a d: Air, Gas, Steam finition: Initial Audible acteristics: Adjustable guration: Restricted L SER GmbH & Co. K	bh & Co., KG c acity: Flow Ca Iternate mediu Discharge ift G {LES}	on March 4, 2002 pacity, Slope m): 5.590 PPH/PS	IA					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pre Range	essure	Media	Designator	
1-1.5 NPS	2,3 NPS	0.121 in ²	[D] 0.551 in	0.0551	in 15-290	0 psi	Steam	UV	
1-1.5 NPS	2,3 NPS	0.121 in²	[D] 0.551 in	0.0551	in 15-797	5 psi	Air	UV	
Design Name	e: 526D Liqui	ds		1	NBCert #	37257	7		
Manufacturer/A	ssembler		Design	ators		E	Expiration Date		
Manufacturer			UV			C	06/15/2027		
Design Type									
[Relief Valve] 52 Capacity Tests: 5 Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	6D Liquids Sec. UV at Leser Gm lishing Relieving Cap 3.110 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady : acteristics: Fixed guration: Restricted L SER GmbH & Co. K(bh & Co., KG c acity: Flow Ca SID Liquid Stream ift G {LES}	on March 4, 2002 pacity, Flow Factor						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pre Range	essure	Media	Designator	
1-1.5 NPS	2,3 NPS	0.121 in ²	[D] 0.551 in	0.0551	in 15-797	5 psi	Water	UV	

Farris Engineering, Division of Curtiss-Wright Flow Control Corporation (FIC)

Nameplate Abbreviation: Farris Engineering, Div. of Curtiss-Wright F.C.C.

Brantford, ON N3T 5M1Canada

This Company Manufactures or Assembles:

Design Name:	1850, 1850H, 1851, 1852, 18 2850, 2852, 2856, 2850H	55, 1856M,	NBCert # 570	02
Manufacturer/Assem	nbler	Designators		Expiration Date
Manufacturer		UV		10/18/2024

[Safety Relief Valve] 1850, 1850H, 1851, 1852, 1855, 1856M, 2850, 2852, 2856, 2850H Capacity Tests: Sec. UV at Farris Engineering on May 5, 1979 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.652 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	1, 1.5 NPS	0.107 in ²	0.5 in	0.068 in	15-2500 psi	Air	UV
0.5-0.75 NPS	1, 1.5 NPS	0.107 in ²	0.5 in	0.068 in	15-800 psi	Steam	UV
0.75-1 NPS	1 - 1.5 NPS	0.24 in ²	0.75 in	0.102 in	15-800 psi	Air	UV
0.75-1 NPS	1 - 1.5 NPS	0.24 in ²	0.75 in	0.102 in	15-800 psi	Steam	UV
1 NPS	1.5, 2 NPS	0.411 in ²	1 in	0.131 in	15-300 psi	Air	UV
1 NPS	1.5, 2 NPS	0.411 in ²	1 in	0.131 in	15-300 psi	Steam	UV
1.5 NPS	2, 2.5 NPS	0.668 in ²	1.25 in	0.17 in	15-200 psi	Air	UV
1.5 NPS	2, 2.5 NPS	0.668 in ²	1.25 in	0.17 in	15-200 psi	Steam	UV
1.5-1.5 NPS	2, 2.5 NPS	0.961 in²	1.5 in	0.204 in	15-300 psi	Air	UV
1.5-1.5 NPS	2, 2.5 NPS	0.961 in²	1.5 in	0.204 in	15-300 psi	Steam	UV
2-2.5 NPS	3 NPS	1.539 in ²	2 in	0.245 in	15-300 psi	Air	UV
2-2.5 NPS	3 NPS	1.539 in ²	2 in	0.245 in	15-300 psi	Steam	UV
2.5-3 NPS	4 NPS	2.662 in ²	2.5 in	0.339 in	15-250 psi	Air	UV
2.5-3 NPS	4 NPS	2.662 in ²	2.5 in	0.339 in	15-250 psi	Steam	UV
3 NPS	4 NPS	3.836 in ²	3 in	0.407 in	15-250 psi	Air	UV
3 NPS	4 NPS	3.836 in ²	3 in	0.407 in	15-250 psi	Steam	UV

Design Name: 1890, 1892, 1895, 189

ert # 57013

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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV, UV	10/15/2027
Design Type		
[Safety Relief Valve] 1890, 1892, 1895, 1896		

Capacity Tests; Sec. UV at Farris Engineering on September 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 4.410 PPH/PSIA; (alternate medium): 1.570 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75, 1 NPS	0.11 in ²	0.375 in	0.094 in	15-800 psi	Air	UV
0.5-0.75 NPS	.75, 1 NPS	0.11 in ²	0.375 in	0.094 in	15-800 psi	Air	NV
0.5-0.75 NPS	.75, 1 NPS	0.11 in ²	0.375 in	0.094 in	15-800 psi	Steam	UV
0.5-0.75 NPS	.75, 1 NPS	0.11 in ²	0.375 in	0.094 in	15-800 psi	Steam	NV

Design Name: NBCert # Manufacturer/Assembler Designators **Expiration Date** NV, UV 12/17/2025 Manufacturer **Design Type** [Relief Valve] 1890L, 1892L, 1895L, 1896L (Liquids) Capacity Tests: Sec. UV at unknown lab on January 14, 1993 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 2.210 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO} Set Pressure Orifice **Inlet Size** Lift **Outlet Size Flow Area** Media Designator [designator] dia. Range UV 0.5-0.75 NPS 3/4, 1 NPS 0.11 in² 0.375 in 0.08 in 15-800 psi Water 2600 & 2600S Manufacturer/Assembler Designators **Expiration Date** Manufacturer NV, UV 09/18/2026 Design Type [Safety Relief Valve] 2600 & 2600S Capacity Tests: Sec. UV at Ohio State University (Robinson Laboratory) on June 11, 1972 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO} Orifice Set Pressure **Inlet Size Outlet Size** Media Flow Area Lift Designator [designator] dia. Range 1-2 NPS 2 - 3 NPS 0.15 in² [D] 0.437 in 0.109 in 15-10000 psi Air UV 1-2 NPS 2 - 3 NPS 0.15 in² [D] 0.437 in 0.109 in 15-2900 psi Steam UV 1-2 NPS 2 - 3 NPS 0.225 in² [E] 0.535 in 0.134 in 15-10000 psi Air UV

0.134 in

0.172 in

0.172 in

0.253 in

0.253 in

0.316 in

0.316 in

0.405 in

0.405 in

0.484 in

0.484 in

0.603 in

15-2900 psi

15-10000 psi

15-2900 psi

15-2900 psi

15-7000 psi

15-2900 psi

15-6000 psi

15-2900 psi

15-6000 psi

15-2900 psi

15-5000 psi

15-2900 psi

Steam

Steam

Steam

Steam

Steam

Steam

Steam

Air

Air

Air

Air

Air

UV

1-2 NPS

1.5-2 NPS

1.5-2 NPS

1.5-2 NPS

1.5-2 NPS

1.5-2 NPS

1.5-2 NPS

2-3 NPS

2-3 NPS

3 NPS

3 NPS

3-4 NPS

2 - 3 NPS

2 - 3 NPS

2 - 3 NPS

2.5, 3 NPS

2.5, 3 NPS

3 NPS

3 NPS

3, 4 NPS

3, 4 NPS

4 - 6 NPS

4 - 6 NPS

4 - 6 NPS

0.225 in²

0.371 in²

0.371 in²

0.559 in²

0.559 in²

0.873 in²

0.873 in²

1.43 in²

1.43 in²

2.042 in²

2.042 in²

3.17 in²

[E] 0.535 in

[F] 0.687 in

[F] 0.687 in

[G] 0.844 in

[G] 0.844 in

[H] 1.054 in

[H] 1.054 in

[J] 1.35 in

[J] 1.35 in

[K] 1.612 in

[K] 1.612 in

[L] 2.009 in

3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV	
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV	
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV	
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV	
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV	
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV	
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV	
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV	
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV	
6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV	
6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV	
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV	
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV	
8-10 NPS	10, 12 NPS	31.5 in²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV	
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV	
10 NPS	14 NPS	49.4 in²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV	
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV	
12 NPS	16 NPS	63.62 in²	[W] 9 in	2.7 in	15-1000 psi	Air	UV	
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV	
16 NPS	18 NPS	104 in ²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV	
16 NPS	18 NPS	104 in ²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV	
16 NPS	20 NPS	113.1 in ²	[X] 12 in	3.6 in	15-750 psi	Air	UV	
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Steam	UV	
18 NPS	24 NPS	143.1 in ²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV	
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV	
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Air	UV	
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV	
Design Nam	e: 2600L (Air	& Steam)		NBCert	# 57260			
Manufacturer/A	ssembler		Designate	ors	Ex	cpiration Date		
Manufacturer			UV		80	8/10/2026		
Design Type								
Design Type [Safety Relief Valve] 2600L (Air & Steam) Capacity Tests: Sec. UV at Farris Engineering on March 5, 2004 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift								
Flow Area Confi Designed by: Fa	acteristics: Fixed guration: Nozzle/Full arris Engineering {TF0	Lift O}						
Flow Area Confi Designed by: Fa	acteristics: Fixed guration: Nozzle/Full arris Engineering {TF(Outlet Size	Lift O} Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
Flow Area Confi Designed by: Fa Inlet Size 1-2 NPS	acteristics: Fixed guration: Nozzle/Full arris Engineering {TF(Outlet Size 2 - 3 NPS	Lift O} Flow Area 0.15 in ²	Orifice [designator] dia. [D] 0.437 in	Lift 0.131 in	Set Pressure Range 15-10000 psi	Media Air	Designator UV	
Flow Area Confi Designed by: Fa Inlet Size 1-2 NPS 1-2 NPS	acteristics: Fixed guration: Nozzle/Full arris Engineering {TFO Outlet Size 2 - 3 NPS 2 - 3 NPS	Lift D} Flow Area 0.15 in ² 0.15 in ²	Orifice [designator] dia. [D] 0.437 in [D] 0.437 in	Lift 0.131 in 0.131 in	Set Pressure Range 15-10000 psi 15-2900 psi	Media Air Steam	Designator UV UV	

1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-6000 psi	Air	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-2900 psi	Steam	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-5000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-2900 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Steam	UV
6 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.665 in	15-1500 psi	Air	UV
6 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.665 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	2.125 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	2.125 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.217 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV
Design Name	e: 2600L (Liq	uids)		NBCert #	<i>‡</i> 57068		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			NV, UV		10	/15/2027	
Design Type							
[Relief Valve] 20 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	600L (Liquids) Sec. UV, V at Nationa lishing Relieving Cap 0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC	al Board Testing bacity: Flow Ca Liquid Stream Lift D}	g Lab (Picaway) on Jar pacity, K	nuary 29, 1985			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in²	[D] 0.437 in	0.131 in	15-10000 psi	Water	UV, V

1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-6000 psi	Water	UV, V	
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-5000 psi	Water	UV, V	
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.326 in	15-3600 psi	Water	UV, V	
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.407 in	15-2750 psi	Water	UV, V	
2-3 NPS	2 - 4 NPS	1.43 in ²	[J] 1.35 in	0.521 in	15-2700 psi	Water	UV, V	
3 NPS	4, 6 NPS	2.041 in ²	[K] 1.612 in	0.622 in	15-2200 psi	Water	UV, V	
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.775 in	15-1500 psi	Water	UV, V	
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.871 in	15-1100 psi	Water	UV, V	
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.957 in	15-1000 psi	Water	UV, V	
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.16 in	15-1000 psi	Water	UV, V	
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.525 in	15-900 psi	Water	UV, V	
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.837 in	15-600 psi	Water	UV, V	
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.339 in	15-300 psi	Water	UV, V	
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.47 in	15-300 psi	Water	UV, V	
Design Name	e: 2700, 2700	05, 3700, 3	700S	NBCert a	# 57237 			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Manufacturer			NV, -Class	s 1, -Class 2, -Class	s 3, UV 11	/19/2024		
Design Type								
Capacity Tests: Sec. UV at Farris Engineering on September 14, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift								
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC	ed: Air, Gas, St Lift D}	pacity, K					
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certific finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size	ed: Air, Gas, St Lift D} Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS	lishing Relieving Cap 0.878 Unitless c/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS	ed: Air, Gas, St Lift D} Flow Area 0.038 in ²	Orifice [designator] dia. [B] 0.22 in	Lift 0.05 in	Set Pressure Range 15-16000 psi	Media Air	Designator	
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1 NPS	lishing Relieving Cap 0.878 Unitless c/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS	ed: Air, Gas, St Lift D} Flow Area 0.038 in ² 0.038 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in	Lift 0.05 in 0.05 in	Set Pressure Range 15-16000 psi 15-2900 psi	Media Air Steam	Designator UV UV	
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFO Outlet Size .75, 1 NPS .75, 1 NPS .75 - 2 NPS	Aacity: Flow Ca ed: Air, Gas, St Lift D} Flow Area 0.038 in ² 0.038 in ² 0.068 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in	Lift 0.05 in 0.05 in 0.074 in	Set Pressure Range 15-16000 psi 15-2900 psi 15-10000 psi	Media Air Steam Air	Designator UV UV UV	
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1.5 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75 - 2 NPS .75 - 2 NPS	Aacity: Flow Ca ed: Air, Gas, St Lift D} Flow Area 0.038 in ² 0.038 in ² 0.068 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.295 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in	Set Pressure Range Image 15-16000 psi Image 15-2900 psi Image 15-2900 psi Image	Media Air Steam Air Air	Designator UV UV UV UV	
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1.5 NPS 0.5-1 NPS	lishing Relieving Cap 0.878 Unitless c/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75 - 2 NPS .75 - 2 NPS .75, 1 NPS	Elow Area 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.295 in [I] 0.358 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in	Set Pressure Range I 15-16000 psi I 15-2900 psi I 15-10000 psi I 15-2900 psi I 15-10000 psi I	Media Air Steam Air Steam Air	Designator UV UV UV UV UV UV UV UV UV	
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1 NPS 0.5-1 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75 - 2 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS	Elow Area 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ²	Orifice [designator] dia. [B] 0.22 in [C] 0.295 in [C] 0.358 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in	Set Pressure Range Image 15-16000 psi Image 15-2900 psi Image 15-10000 psi Image 15-2900 psi Image	Media Air Steam Air Steam Air Air Steam	Designator UV	
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75, 2 NPS .75, 2 NPS .75, 1 NPS	Elow Area 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ² 0.098 in ² 0.098 in ² 0.098 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.295 in [C] 0.358 in [1] 0.358 in [D] 0.4 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in 0.0895 in 0.1 in	Set Pressure Range Image 15-16000 psi Image 15-2900 psi Image 15-10000 psi Image 15-10000 psi Image	Media Air Steam Air Steam Air Steam Air	Designator UV	
Method of Estab Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 0.5-2 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFO Outlet Size .75, 1 NPS .75, 1 NPS .75, 2 NPS .75, 1 NPS	Elow Area 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ² 0.098 in ² 0.125 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.358 in [1] 0.358 in [D] 0.4 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in 0.0895 in 0.0895 in 0.1 in	Set Pressure Range 15-16000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-2900 psi 15-10000 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Air Steam	Designator UV	
Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 0.5-2 NPS 1 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75, 2 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 2 NPS .75, 2 NPS 1 - 2 NPS 1 - 2 NPS 1.5, 2 NPS	Elow Area 0.038 in ² 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ² 0.098 in ² 0.125 in ² 0.125 in ² 0.223 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.295 in [I] 0.358 in [I] 0.358 in [I] 0.4 in [D] 0.4 in [E] 0.533 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in 0.0895 in 0.1 in 0.1 in	Set Pressure 15-16000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-10000 psi 15-10000 psi 15-2900 psi 15-2900 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam Air Air Air Air Air Air Air	Designator UV	
Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1 NPS 1 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75, 2 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 2 NPS 1 - 2 NPS 1 - 2 NPS 1.5, 2 NPS 1.5, 2 NPS 1.5, 2 NPS	Elow Area 0.038 in ² 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ² 0.098 in ² 0.125 in ² 0.223 in ²	Orifice [0] [designator] dia. [0] [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.295 in [I] 0.358 in [I] 0.358 in [I] 0.4 in [D] 0.4 in [E] 0.533 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in 0.0895 in 0.1 in 0.1 in 0.134 in	Set Pressure 15-16000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-2900 psi	Media Air Steam	Designator UV	
Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1 NPS 1 NPS 1.5-2 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75, 2 NPS .75, 1 NPS .75, 2 NPS 1 - 2 NPS 1 - 2 NPS 1.5, 2 NPS 1.5, 2 NPS 2, 2.5 NPS	Elow Area 0.038 in ² 0.038 in ² 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ² 0.125 in ² 0.125 in ² 0.223 in ² 0.223 in ² 0.35 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.295 in [D] 0.4 in [D] 0.4 in [E] 0.533 in [E] 0.533 in [F] 0.668 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in 0.0895 in 0.1 in 0.1 ai 0.1 ai 0.134 in 0.134 in	Set Pressure Range 15-16000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV	
Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1 NPS 0.5-2 NPS 0.5-2 NPS 1 NPS 1.5-2 NPS 1.5-2 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75, 2 NPS .75, 1 NPS .75, 2 NPS 1.2 NPS 1.5, 2 NPS 1.5, 2 NPS 2, 2.5 NPS 2, 2.5 NPS	Elow Area 0.038 in ² 0.038 in ² 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ² 0.098 in ² 0.125 in ² 0.125 in ² 0.223 in ² 0.223 in ² 0.35 in ²	Orifice [Gesignator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.295 in [C] 0.295 in [C] 0.295 in [D] 0.4 in [C] 0.533 in [E] 0.533 in [C] 0.533 in [F] 0.668 in [F] 0.668 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in 0.0895 in 0.1 in 0.1 in 0.1 in 0.1 34 in 0.134 in 0.134 in 0.167 in	Set Pressure Range 15-16000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi	MediaAirSteamAirSteamAirSteamAirSteamSteamAirSteamAirAirSteamAirSteamAirSteamAirSteamSteamSteamSteamSteamSteamSteam	Designator UV UV	
Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1 NPS 1 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75, 2 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS 1 - 2 NPS 1 - 2 NPS 1 .5, 2 NPS 1.5, 2 NPS 2, 2.5 NPS 2, 2.5 NPS 2., 3 NPS	Elow Area 0.038 in ² 0.038 in ² 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ² 0.098 in ² 0.125 in ² 0.125 in ² 0.223 in ² 0.35 in ² 0.35 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.295 in [I] 0.358 in [I] 0.668 in [E] 0.533 in [E] 0.533 in [E] 0.668 in [F] 0.668 in [G] 0.855 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in 0.0895 in 0.1 in 0.1 a 0.1 a 0.134 in 0.134 in 0.134 in 0.167 in 0.167 in	Set Pressure 15-16000 psi 15-2900 psi 15-10000 psi 15-2900 psi	Media Air Steam	Designator UV UV	
Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa 0.5-1 NPS 0.5-1 NPS 0.5-1.5 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1 NPS 1 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	lishing Relieving Cap 0.878 Unitless 7/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 1 NPS .75, 2 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS 1 - 2 NPS 1 - 2 NPS 1 .5, 2 NPS 1 .5, 2 NPS 2, 2.5 NPS 2, 2.5 NPS 2., 3 NPS 2., 3 NPS	Elow Area 0.038 in ² 0.038 in ² 0.038 in ² 0.068 in ² 0.068 in ² 0.098 in ² 0.098 in ² 0.125 in ² 0.125 in ² 0.223 in ² 0.35 in ² 0.35 in ² 0.573 in ²	Orifice [designator] dia. [B] 0.22 in [B] 0.22 in [C] 0.295 in [C] 0.295 in [C] 0.295 in [C] 0.295 in [D] 0.4 in [C] 0.358 in [D] 0.4 in [C] 0.533 in [E] 0.533 in [C] 0.533 in [E] 0.533 in [C] 0.668 in [E] 0.6585 in [C] 0.855 in	Lift 0.05 in 0.05 in 0.074 in 0.074 in 0.0895 in 0.0895 in 0.1 in 0.1 in 0.134 in 0.134 in 0.134 in 0.167 in 0.167 in 0.215 in	Set Pressure 15-16000 psi 15-2900 psi 15-10000 psi 15-2900 psi	Media Air Steam Air Air	Designator UV UV	

2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-2900 psi	Steam	UV
3 NPS	4 NPS	1.47 in²	[J] 1.368 in	0.342 in	15-3000 psi	Air	UV
Design Name	e: 2700L, 370	00L (Liquid	s)	NBCert ;	# 57248		
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Manufacturer			NV, -Class	s 1, -Class 2, -Class	s 3, UV 10	0/18/2024	
Design Type							
[Relief Valve] 2700L, 3700L (Liquids) Capacity Tests: Sec. UV at Farris Engineering on September 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.676 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TEQ}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Water	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Water	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.089 in	15-10000 psi	Water	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Water	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Water	UV
1.5 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Water	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Water	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Water	UV
3 NPS	4 NPS	1.47 in²	[J] 1.368 in	0.342 in	15-3000 psi	Water	UV
Design Name	e: 2850R06-1	M20/S4/SP		NBCert ;	# 57103		
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Manufacturer			NV		09	9/23/2026	
Design Type							
[Relief Valve] 2850R06-M20/S4/SP HolderDesignation: Capacity Tests: Sec. NV, -Class 2, -Class 3 at Farris Engineering on July 28, 2020 Method of Establishing Relieving Capacity: Flow Capacity, 1 valve method Certified Value:312.00 SCFM; (alternate medium): 0.000 Media - Test: Air; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Farris Engineering, Division of Curtiss-Wright Flow Control Corporation {EIC}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5-1.5 NPS	2.5 NPS	0.961 in ²	1.5 in	0.204 in	12-12 psi	Air	NV, -Class 2, -Class 3

Design Nam	e: 4200 / 440	00		NBCert	# 57282		
Manufacturer/A	Assembler		Designat	ors	E	xpiration Date)
Manufacturer		_	UV, V		1()/15/2027	
Design Type							
[Safety Valve] 4 Capacity Tests: Method of Estat Certified Value: Media - Test: S Set Pressure De Blowdown Char Flow Area Confi Designed by: Fa	4200 / 4400 Sec. UV, V at Nation olishing Relieving Ca 0.872 Unitless team; Certified: Air, C efinition: Pop racteristics: Adjustabl iguration: Nozzle/Full arris Engineering {TF	al Board Testin pacity: Flow Ca Gas, Steam e (Dual Ring) I Lift O}	g Lab on June 9, 2005 pacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25 NPS	1.5 NPS	0.316 in ²	[F] 0.634 in	0.159 in	15-1480 psi	Steam	UV, V
1.25 NPS	1.5 NPS	0.518 in ²	[G] 0.812 in	0.203 in	15-1480 psi	Steam	UV, V
1.5 NPS	2.5 NPS	0.809 in ²	[H] 1.015 in	0.254 in	15-1480 psi	Steam	UV, V
1.5 NPS	2.5 NPS	1.325 in ²	[J] 1.299 in	0.325 in	15-1480 psi	Steam	UV, V
2 NPS	3 NPS	1.897 in²	[K] 1.554 in	0.389 in	15-1480 psi	Steam	UV, V
2.5 NPS	4 NPS	2.938 in ²	[L] 1.934 in	0.484 in	15-1480 psi	Steam	UV, V
3 NPS	4 NPS	3.822 in ²	[M] 2.206 in	0.552 in	15-1480 psi	Steam	UV, V
4 NPS	6 NPS	4.471 in ²	[N] 2.386 in	0.597 in	15-1480 psi	Steam	UV, V
4 NPS	6 NPS	6.573 in ²	[P] 2.893 in	0.723 in	15-1480 psi	Steam	UV, V
6 NPS	8 NPS	11.389 in²	[Q] 3.808 in	0.952 in	15-1480 psi	Steam	UV, V
Design Nam	e: 4700L (liq	uids)		NBCert	# 57259		
Manufacturer/A	Assembler		Designat	ors	E	xpiration Date)
Manufacturer			NV, UV		09	9/10/2026	
Design Type							
[Relief Valve] 4 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: Fa	[Relief Valve] 4700L (liquids) Capacity Tests: Sec. NV, UV at National Board Testing Lab (Picaway) on May 21, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.654 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Annular Designed by: Earris Engineering, Division of Curtiss Wright Flow Central Corporation (FIC)						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1, 1.5 NPS	0.028 in ²	[B] 0.395 in	0.047 in	15-6000 psi	Water	UV
0.5-1 NPS	.75, 1, 1.5 NPS	0.049 in ²	[C] 0.395 in	0.062 in	15-6000 psi	Water	UV
1 NPS	1.5 NPS	0.062 in ²	[C] 0.395 in	0.062 in	15-6000 psi	Water	UV
0.5-1 NPS	.75, 1, 1.5 NPS	0.123 in ²	[D] 0.66 in	0.099 in	15-6000 psi	Water	UV

[E] 0.66 in

15-6000 psi

0.134 in

0.225 in²

0.5-1 NPS

.75, 1, 1.5 NPS

UV

Water
NBCert

57046

Manufacture	/Assembler		Designat	Designators			Expiration Date		
Manufacturer			UV, V	UV, V 06/24/2027					
Design Type									
[Safety Valve] 6400/6600 (previously 2500 & 4600) Capacity Tests: Sec. UV, V at Ohio State University (Robinson Laboratory) on January 28, 1972 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Air	UV		
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	V		
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV		
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Air	UV		
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	V		
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV		
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Air	UV		
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	V		
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV		
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Air	UV		
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Steam	V		
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Steam	UV		
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Air	UV		
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Steam	V		
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Steam	UV		
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Air	UV		
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Steam	V		
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Steam	UV		
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Air	UV		
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Steam	V		
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Steam	UV		
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Air	UV		
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Steam	V		
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Steam	UV		
3-4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.564 in	15-2900 psi	Air	UV		
3-4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.564 in	15-2900 psi	Steam	V		
3-4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.564 in	15-2900 psi	Steam	UV		
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Air	UV		
3-4 NPS	6 NPS	4 822 in ²	[N] 2 478 in	0.62 in	15-2900 psi	Steam	V		

3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Steam	UV			
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Air	UV			
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Steam	V			
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Steam	UV			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Air	UV			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Steam	V			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Steam	UV			
6 NPS	8 , 10 NPS	17.78 in²	[R] 4.758 in	1.19 in	15-2000 psi	Air	UV			
6 NPS	8 , 10 NPS	17.78 in²	[R] 4.758 in	1.19 in	15-2000 psi	Steam	V			
6 NPS	8 , 10 NPS	17.78 in²	[R] 4.758 in	1.19 in	15-2000 psi	Steam	UV			
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Air	UV			
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Steam	V			
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Steam	UV			
	Design Name: 954C55 NBCert # 57440									
Design Name	e: 954C55			NBCert #	# 57440					
Design Name Manufacturer/A	e: 954C55 ssembler		Designato	NBCert ≉ rs	# 57440 Ex	piration Date				
Design Name Manufacturer/A Manufacturer	e: 954C55 ssembler	-	Designato	NBCert ≉ rs	# 57440 Ex 12	piration Date				
Design Name Manufacturer/A Manufacturer Design Type	e: 954C55 ssembler		Designato NV	NBCert ≉ rs	# 57440 Ex 12	piration Date /11/2025				
Design Name Manufacturer/A Manufacturer Design Type [Vacuum Relief N Capacity Tests: S Method of Estab Certified Value:2 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	e: 954C55 ssembler /alve] 954C55 Sec. NV, -Class 2, -C lishing Relieving Cap 3.300 SCFM/F(P*(P- //Gas; Certified: Air, C finition: Start-to-Leak acteristics: Fixed guration: Curtain Area rris Engineering, Divi	lass 3 at Natio pacity: Flow Ca Po)^.5 Gas c a ision of Curtiss	Designato NV nal Board Testing Lab { pacity, Slope	NBCert # rs junknown test date	# 57440 Ex 12	piration Date /11/2025				
Design Name Manufacturer/A Manufacturer Design Type [Vacuum Relief V Capacity Tests: S Method of Estab Certified Value:2 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	e: 954C55 ssembler /alve] 954C55 Sec. NV, -Class 2, -C lishing Relieving Cap 3.300 SCFM/F(P*(P- ć/Gas; Certified: Air, /Gas; Certified: Air, /Gas; Certified: Air, /Gas; Certified: Air, /Gas; Certified: Air, /Gas; Certified: Air, /Gas; Certified: Air, //Gas; Certified: Air, /	lass 3 at Natio pacity: Flow Ca Po)^.5 Sas s ision of Curtiss Flow Area	Designato NV nal Board Testing Lab { pacity, Slope -Wright Flow Control C Orifice [designator] dia.	NBCert # rs junknown test date; orporation {FIC} Lift	# 57440 Ex 12/ } Set Pressure Range	piration Date /11/2025 Media	Designator			

Flow Safe Inc. (FSS)

Houston, TX 77070United States

Design Name:	F7100, F7300, F7400, F7500	(Liquids)	NBCert # 280	
Manufacturer/Assen	nbler	Designators		Expiration Date
Manufacturer		UV		04/25/2026

[Pilot Operated Pressure Relief Valve] F7100, F7300, F7400, F7500 (Liquids) Capacity Tests: Sec. UV at National Board Testing Lab on January 5, 1996 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.634 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Flow Safe Inc. {FLW}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2 NPS	0.522 in ²	0.815 in	0.43 in	2221-6000 psi	Water	UV
1 NPS	2 NPS	0.719 in ²	0.957 in	0.43 in	15-2220 psi	Water	UV
1.5 NPS	3 NPS	0.95 in ²	1.1 in	0.665 in	3706-6000 psi	Water	UV
1.5 NPS	3 NPS	1.404 in ²	1.337 in	0.665 in	1481-3705 psi	Water	UV
1.5 NPS	3 NPS	1.767 in ²	1.5 in	0.665 in	15-1480 psi	Water	UV
2 NPS	3 NPS	1.774 in²	1.503 in	0.865 in	3706-6000 psi	Water	UV
2 NPS	3 NPS	2.24 in ²	1.689 in	0.865 in	1481-3705 psi	Water	UV
2 NPS	3 NPS	2.953 in ²	1.939 in	0.865 in	15-1480 psi	Water	UV
3 NPS	4 NPS	5.408 in ²	2.624 in	1.235 in	1481-3705 psi	Water	UV
3 NPS	4 NPS	6.605 in ²	2.9 in	1.235 in	15-1480 psi	Water	UV
4 NPS	6 NPS	10.315 in²	3.624 in	1.53 in	1481-3705 psi	Water	UV
4 NPS	6 NPS	11.437 in²	3.816 in	1.53 in	15-1480 psi	Water	UV
6 NPS	8 NPS	26.06 in ²	5.76 in	2.2 in	15-1480 psi	Water	UV
8 NPS	10 NPS	45.66 in ²	7.625 in	2.86 in	15-1480 psi	Water	UV
10 NPS	12 NPS	71.85 in ²	9.565 in	3.64 in	15-750 psi	Water	UV
12 NPS	16 NPS	111.87 in²	11.935 in	4.17 in	15-285 psi	Water	UV

Design Name: F8100, F8200, F8300, F8400, F

0.134 in²

0.235 in²

[D] 0.957 in

[E] 0.957 in

1 NPS

1 NPS

2 NPS

2 NPS

28022

15-2220 psi

15-2220 psi

Manufacturer/Assembler Designators **Expiration Date** Manufacturer UV 06/14/2024 Design Type [Pilot Operated Pressure Relief Valve] F8100, F8200, F8300, F8400, F8500 Capacity Tests: Sec. UV at National Board Testing Lab on August 30, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition(1): Initial Audible Discharge; (3): Pop Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Flow Safe Inc. {FLW} Orifice **Set Pressure Inlet Size Outlet Size** Flow Area Lift Media Designator [designator] dia. Range 1 NPS 2 NPS 0.134 in² [D] 0.815 in 0.43 in 2221-6000 psi Air UV 1 NPS 2 NPS 0.235 in² [E] 0.815 in 0.43 in 2221-6000 psi Air UV 0.358 in² UV 1 NPS 2 NPS [F] 0.815 in 0.43 in 2221-3705 psi Air

0.43 in

0.43 in

UV

UV

Air

Air

1 NPS	2 NPS	0.358 in ²	[F] 0.957 in	0.43 in	15-2220 psi	Air	UV
1.5 NPS	3 NPS	0.358 in ²	[F] 1.1 in	0.665 in	3706-6000 psi	Air	UV
1.5 NPS	3 NPS	0.588 in ²	[G] 1.1 in	0.665 in	3706-6000 psi	Air	UV
1.5 NPS	3 NPS	0.916 in ²	[H] 1.1 in	0.665 in	3706-6000 psi	Air	UV
1.5 NPS	3 NPS	0.588 in ²	[G] 1.337 in	0.665 in	1481-3705 psi	Air	UV
1.5 NPS	3 NPS	0.358 in ²	[F] 1.337 in	0.665 in	1481-3705 psi	Air	UV
1.5 NPS	3 NPS	0.916 in ²	[H] 1.337 in	0.665 in	1481-3705 psi	Air	UV
1.5 NPS	3 NPS	0.358 in ²	[F] 1.5 in	0.665 in	15-1480 psi	Air	UV
1.5 NPS	3 NPS	0.588 in ²	[G] 1.5 in	0.665 in	15-1480 psi	Air	UV
1.5 NPS	3 NPS	0.916 in ²	[H] 1.5 in	0.665 in	15-1480 psi	Air	UV
2 NPS	3, 3 dual NPS	0.916 in ²	[H] 1.503 in	0.865 in	3706-6000 psi	Air	UV
2 NPS	3, 3 dual NPS	1.503 in ²	[J] 1.503 in	0.865 in	3706-6000 psi	Air	UV
2 NPS	3, 3 dual NPS	0.588 in ²	[G] 1.503 in	0.865 in	3706-6000 psi	Air	UV
2 NPS	3, 3 dual NPS	0.916 in ²	[H] 1.689 in	0.865 in	1481-3705 psi	Air	UV
2 NPS	3, 3 dual NPS	0.588 in ²	[G] 1.689 in	0.865 in	1481-3705 psi	Air	UV
2 NPS	3, 3 dual NPS	1.503 in ²	[J] 1.689 in	0.865 in	1481-3705 psi	Air	UV
2 NPS	3, 3 dual NPS	0.588 in ²	[G] 1.939 in	0.865 in	15-1480 psi	Air	UV
2 NPS	3, 3 dual NPS	0.916 in ²	[H] 1.939 in	0.865 in	15-1480 psi	Air	UV
2 NPS	3, 3 dual NPS	1.503 in ²	[J] 1.939 in	0.865 in	15-1480 psi	Air	UV
3 NPS	4, 4 dual NPS	3.277 in ²	[L] 2.624 in	1.235 in	1481-3705 psi	Air	UV
3 NPS	4, 4 dual NPS	2.147 in ²	[K] 2.624 in	1.235 in	1481-3705 psi	Air	UV
3 NPS	4, 4 dual NPS	1.503 in ²	[J] 2.624 in	1.235 in	1481-3705 psi	Air	UV
3 NPS	4, 4 dual NPS	1.503 in ²	[J] 2.9 in	1.235 in	15-1480 psi	Air	UV
3 NPS	4, 4 dual NPS	2.147 in ²	[K] 2.9 in	1.235 in	15-1480 psi	Air	UV
3 NPS	4, 4 dual NPS	3.277 in ²	[L] 2.9 in	1.235 in	15-1480 psi	Air	UV
4 NPS	6, 6 dual NPS	4.147 in ²	[M] 3.624 in	1.53 in	1481-3705 psi	Air	UV
4 NPS	6, 6 dual NPS	3.277 in ²	[L] 3.624 in	1.53 in	1481-3705 psi	Air	UV
4 NPS	6, 6 dual NPS	7.397 in ²	[P] 3.624 in	1.53 in	1481-3705 psi	Air	UV
4 NPS	6, 6 dual NPS	5.014 in ²	[N] 3.624 in	1.53 in	1481-3705 psi	Air	UV
4 NPS	6, 6 dual NPS	3.277 in ²	[L] 3.816 in	1.53 in	15-1480 psi	Air	UV
4 NPS	6, 6 dual NPS	4.147 in ²	[M] 3.816 in	1.53 in	15-1480 psi	Air	UV
4 NPS	6, 6 dual NPS	5.014 in ²	[N] 3.816 in	1.53 in	15-1480 psi	Air	UV
4 NPS	6, 6 dual NPS	7.397 in ²	[P] 3.816 in	1.53 in	15-1480 psi	Air	UV
6 NPS	8, 8 dual NPS	12.913 in ²	[Q] 5.76 in	2.2 in	15-1480 psi	Air	UV
6 NPS	8, 8 dual NPS	18.704 in²	[R] 5.76 in	2.2 in	15-1480 psi	Air	UV
8 NPS	10, 8 dual, 10 dual NPS	30.409 in ²	[T] 7.625 in	2.86 in	15-1480 psi	Air	UV
8 NPS	10 NPS	16.53 in ²	[R-1] 7.625 in	2.86 in	15-1480 psi	Air	UV
10 NPS	12 NPS	51 in ²	[V] 9.565 in	3.64 in	15-750 psi	Air	UV
12 NPS	16 NPS	78.81 in ²	[W] 11.935 in	4.17 in	15-285 psi	Air	UV

Design Nam	e: F8100, F8 Sizes) (Lie	3300, F8500 quid)) (High Beta Rati	o NBCe	rt # 2815	6				
Manufacturer/	Assembler		Designat	tors		Expiration Da	ite			
Manufacturer	/anufacturer					07/21/2027				
Design Type										
Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure D Blowdown Char Flow Area Conf Designed by: Fl	[Pilot Operated Pressure Relief Valve] F8100, F8300, F8500 (High Beta Ratio Sizes) (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on March 12, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.730 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Flow Safe Inc. (FLW)									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
3 NPS	4 NPS	3.277 in ²	[L] 2.624 in	1.235 in	15-3705 psi	Water	UV			
4 NPS	6 NPS	7.397 in ²	[P] 3.816 in	1.53 in	15-3705 psi	Water	UV			
6 NPS	8 NPS	18.704 in ²	[R] 5.76 in	2.2 in	15-1480 psi	Water	UV			
8 NPS	10 NPS	30.409 in ²	[T] 7.625 in	2.86 in	15-1480 psi	Water	UV			

Design Name: E8100 E8300 E8500 (liquid)

51 in²

78.81 in²

[V] 9.565 in

[W] 10.017 in

Cert #

2809

UV

UV

Water

Water

		\circ	U

15-750 psi

15-285 psi

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/25/2026
Design Type		
[Pilot Operated Pressure Relief Valve] F8100, F8300, F8500 (Capacity Tests: Sec. LIV at National Board Testing Lab on Feb	liquid) Juary 12, 2008	

3.64 in

4.17 in

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.830 Unitless

10 NPS

12 NPS

Media - Test: Water/Liquid; Certified: Liquid

12 NPS

16 NPS

Set Pressure Definition: First Steady Stream

Blowdown Characteristics: Fixed

Flow Area Configuration: Nozzle/Full Lift

Designed by: Flow Safe Inc. {FLW}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2 NPS	0.134 in ²	[D] 0.815 in	0.43 in	2221-6000 psi	Water	UV
1 NPS	2 NPS	0.235 in ²	[E] 0.815 in	0.43 in	2221-6000 psi	Water	UV
1 NPS	2 NPS	0.134 in ²	[D] 0.957 in	0.43 in	15-2220 psi	Water	UV
1 NPS	2 NPS	0.235 in ²	[E] 0.957 in	0.43 in	15-2220 psi	Water	UV
1 NPS	2 NPS	0.358 in ²	[F] 0.957 in	0.43 in	15-2220 psi	Water	UV
1.5 NPS	3 NPS	0.358 in ²	[F] 1.1 in	0.665 in	3706-6000 psi	Water	UV
1.5 NPS	3 NPS	0.358 in ²	[F] 1.337 in	0.665 in	1481-3705 psi	Water	UV
1.5 NPS	3 NPS	0.588 in ²	[G] 1.337 in	0.665 in	1481-3705 psi	Water	UV
1.5 NPS	3 NPS	0.358 in ²	[F] 1.5 in	0.665 in	15-1480 psi	Water	UV
1.5 NPS	3 NPS	0.588 in ²	[G] 1.5 in	0.665 in	15-1480 psi	Water	UV

1.5 NPS	3 NPS	0.916 in ²	[H] 1.5 in	0.665 in	15-1480 psi	Water	UV		
2 NPS	3 NPS	0.588 in ²	[G] 1.503 in	0.865 in	3706-6000 psi	Water	UV		
2 NPS	3 NPS	0.916 in ²	[H] 1.503 in	0.865 in	3706-6000 psi	Water	UV		
2 NPS	3 NPS	0.588 in ²	[G] 1.689 in	0.865 in	1481-3705 psi	Water	UV		
2 NPS	3 NPS	0.916 in ²	[H] 1.689 in	0.865 in	1481-3705 psi	Water	UV		
2 NPS	3 NPS	0.588 in ²	[G] 1.939 in	0.865 in	15-1480 psi	Water	UV		
2 NPS	3 NPS	0.916 in ²	[H] 1.939 in	0.865 in	15-1480 psi	Water	UV		
2 NPS	3 NPS	1.503 in ²	[J] 1.939 in	0.865 in	15-1480 psi	Water	UV		
3 NPS	4 NPS	1.503 in ²	[J] 2.624 in	1.235 in	1481-3705 psi	Water	UV		
3 NPS	4 NPS	2.147 in ²	[K] 2.624 in	1.235 in	1481-3705 psi	Water	UV		
3 NPS	4 NPS	1.503 in ²	[J] 2.9 in	1.235 in	15-1480 psi	Water	UV		
3 NPS	4 NPS	2.147 in ²	[K] 2.9 in	1.235 in	15-1480 psi	Water	UV		
3 NPS	4 NPS	3.277 in ²	[L] 2.9 in	1.235 in	15-1480 psi	Water	UV		
4 NPS	6 NPS	3.277 in ²	[L] 3.624 in	1.53 in	1481-3705 psi	Water	UV		
4 NPS	6 NPS	4.147 in ²	[M] 3.624 in	1.53 in	1481-3705 psi	Water	UV		
4 NPS	6 NPS	5.014 in ²	[N] 3.624 in	1.53 in	1481-3705 psi	Water	UV		
4 NPS	6 NPS	3.277 in ²	[L] 3.816 in	1.53 in	15-1480 psi	Water	UV		
4 NPS	6 NPS	4.147 in ²	[M] 3.816 in	1.53 in	15-1480 psi	Water	UV		
4 NPS	6 NPS	5.014 in ²	[N] 3.816 in	1.53 in	15-1480 psi	Water	UV		
6 NPS	8 NPS	12.913 in ²	[Q] 5.76 in	2.2 in	15-1480 psi	Water	UV		
			Design Name: F84L, F88 (liquids) NBCert # 28055						
Design Name	e: F84L, F88	(liquids)		NBCert #	¥ 28055				
Design Name Manufacturer/A	e: F84L, F88 .ssembler	(liquids)	Designato	NBCert # rs	¥ 28055 E	cpiration Date			
Design Name Manufacturer/A Manufacturer	e: F84L, F88 .ssembler	(liquids)	Designato	NBCert / rs	# 28055 E: 04	xpiration Date			
Design Name Manufacturer/A Manufacturer Design Type	e: F84L, F88 .ssembler	(liquids)	Designato UV	NBCert / rs	# 28055 E: 04	xpiration Date			
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Flo	e: F84L, F88 (liqui sec. UV at National E lishing Relieving Cap 0.798 Unitless ater/Liquid; Certified: ofinition: 93% of pop acteristics: Fixed guration: Nozzle/Full bow Safe Inc. {FLW}	(liquids) ds) Board Testing L bacity: Flow Ca Liquid Lift	Designato UV ab on August 26, 1996 pacity, K	NBCert #	# 28055 E: 04	xpiration Date			
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Flo	e: F84L, F88 ssembler alve] F84L, F88 (liqui Sec. UV at National E lishing Relieving Cap 0.798 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full bw Safe Inc. {FLW} Outlet Size	(liquids) ds) Board Testing L Dacity: Flow Ca Liquid Lift Flow Area	Designato UV ab on August 26, 1996 pacity, K Orifice [designator] dia.	NBCert #	# 28055	kpiration Date	Designator		
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Flo Inlet Size 0.75-1 NPS	e: F84L, F88 ssembler alve] F84L, F88 (liqui Sec. UV at National E lishing Relieving Cap 0.798 Unitless ater/Liquid; Certified: ateristics: Fixed guration: Nozzle/Full bw Safe Inc. {FLW} Outlet Size 1 NPS	(liquids) ds) Board Testing L bacity: Flow Ca Liquid Lift Flow Area 0.261 in ²	Designato UV ab on August 26, 1996 pacity, K Orifice [designator] dia. [#8] 0.577 in	NBCert # rs Lift 0.27 in	# 28055 E: 04 04 04 04 04 04 04 04 04 04 04 04 04	kpiration Date 1/25/2026 Media Water	Designator		
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure Des Blowdown Chara Flow Area Config Designed by: Flo Inlet Size 0.75-1 NPS 1.5 NPS	e: F84L, F88 assembler alve] F84L, F88 (liqui Sec. UV at National E lishing Relieving Cap 0.798 Unitless ater/Liquid; Certified: ater/Liquid; Certified: ater/Liquid; Certified: guration: Nozzle/Full bw Safe Inc. {FLW} Outlet Size 1 NPS 2 NPS	(liquids) ds) Board Testing L bacity: Flow Ca Liquid Lift Flow Area 0.261 in ² 0.663 in ²	Designato UV ab on August 26, 1996 pacity, K Orifice [designator] dia. [#8] 0.577 in [G] 0.919 in	NBCert # rs Lift 0.27 in 0.34 in	 28055 E 04 30-4292 psi 30-3705 psi 	<pre>kpiration Date l/25/2026 Media Water Water Water</pre>	Designator UV UV UV		
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Flo Inlet Size 0.75-1 NPS 1.5 NPS 2 NPS	e: F84L, F88 ssembler alve] F84L, F88 (liqui Sec. UV at National B lishing Relieving Car 0.798 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full bw Safe Inc. {FLW} Outlet Size 1 NPS 2 NPS 3 NPS	(liquids) ds) Board Testing L bacity: Flow Ca Liquid Lift Flow Area 0.261 in ² 0.663 in ² 1.69 in ²	Designato UV ab on August 26, 1996 pacity, K Orifice [designator] dia. [#8] 0.577 in [G] 0.919 in [J] 1.467 in	NBCert # rs Lift 0.27 in 0.34 in 0.6 in	 28055 E 04 304292 psi 30-3705 psi 30-2700 psi 	<pre>kpiration Date //25/2026 //25/202 //25/20 //20 /</pre>	Designator UV UV		
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Flo Inlet Size 0.75-1 NPS 1.5 NPS 2 NPS Design Name	e: F84L, F88 Assembler Alve] F84L, F88 (liqui Sec. UV at National E lishing Relieving Cap 0.798 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full bw Safe Inc. {FLW} Outlet Size 1 NPS 2 NPS 3 NPS e: F84L-2	(liquids) ds) Board Testing L Dacity: Flow Ca Liquid Lift Flow Area 0.261 in ² 0.663 in ² 1.69 in ²	Designato UV ab on August 26, 1996 pacity, K Orifice [designator] dia. [#8] 0.577 in [G] 0.919 in [J] 1.467 in	NBCert #	 28055 E 04 30-4292 psi 30-3705 psi 30-2700 psi 28123 	kpiration Date k/25/2026 k/25/2026 </td <td>Designator UV UV UV</td>	Designator UV UV UV		
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Flo Inlet Size 0.75-1 NPS 1.5 NPS 2 NPS Design Name Manufacturer/A	e: F84L, F88 ssembler alve] F84L, F88 (liqui Sec. UV at National E lishing Relieving Cap 0.798 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full bw Safe Inc. {FLW} Outlet Size 1 NPS 2 NPS 3 NPS e: F84L-2 ssembler	(liquids) ds) Board Testing L Dacity: Flow Ca Liquid Lift Flow Area 0.261 in ² 0.663 in ² 1.69 in ²	Designator UV ab on August 26, 1996 pacity, K Crifice [designator] dia. [#8] 0.577 in [G] 0.919 in [J] 1.467 in Designator	NBCert # rs Lift 0.27 in 0.34 in 0.6 in NBCert #	# 28055 E: 04 04 04 Set Pressure 1 30-4292 psi 4 30-3705 psi 4 30-2700 psi 4 28123 E:	<pre> kpiration Date k/25/2026 km km</pre>	Designator UV UV UV		

Design Type									
[Safety Relief Valve] F84L-2 Capacity Tests: Sec. UV at National Board Testing Lab on October 5, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 0.353 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: 93% of pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Flow Safe Inc. {FLW}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 NPS	.5 - 1 NPS	0.015 in ²	[-2] 0.138 in	0.07 in	200-24277 psi	Water	UV		
Design Name	e: F84L-3, F8	88-3 (Liquid		NBCert	# 28145				
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date			
Manufacturer			UV		0	8/10/2027			
Design Type									
[Safety Relief Valve] F84L-3, F88-3 (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on August 12, 2014 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 2.070 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: 93% of pop Blowdown Characteristics: Fixed Flow Area Configuration: Annulus Designed by: Flow Safe Inc. {FLW}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 in	1 in	0.065 in ²	[-3] 0.577 in	0.27 in	50-8382 psi	Water	UV		
Design Name	e: F84L-4, F8	8-4 (Liquio	ds)	NBCert	# 28044				
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date			
Manufacturer			UV		0	4/25/2026			
Design Type									
[Relief Valve] F8 Capacity Tests: 3 Method of Estab Certified Value: 3 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Flo	34L-4, F88-4 (Liquids Sec. UV at National E lishing Relieving Cap 3.790 GPM/SQ.RT. P ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Annular bw Safe Inc. {FLW}	s) Board Testing L bacity: Flow Ca SID Liquid	ab on December 18, 1 pacity, Flow Factor	996					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 NPS	1 NPS	0.116 in ²	[4] 0.577 in	0.27 in	30-8382 psi	Water	UV		
Design Name	e: F88-3			NBCert	# 28134				
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date			
Manufacturer			UV		0	8/10/2027			

[Safety Valve] F Capacity Tests: S Method of Estab Certified Value: Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Flo	88-3 Sec. UV at National E lishing Relieving Cap 1.060 SCFM/PSIA r/Gas; Certified: Air, (finition: Pop acteristics: Fixed guration: Annulus ow Safe Inc. {FLW}	Board Testing L bacity: Flow Ca Gas	ab on September 4, 2 pacity, Slope	014					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 in	1 in	0.065 in²	[-3] 0.546 in	0.27 in	50-4292 psi	Air	UV		
Design Name	e: F88-4			NBCert	# 2808	38			
Manufacturer/A	ssembler		Designate	ors		Expiration Date	2		
Manufacturer			UV			04/25/2026			
Design Type									
[Safety Relief Valve] F88-4 Capacity Tests: Sec. UV at National Board Testing Lab on October 20, 2004 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.870 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Annulus Designed by: Flow Safe Inc. {FLW}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 NPS	1 NPS	0.116 in²	0.577 in	0.27 in	50-4292 psi	Air	UV		
Design Name	e: F88-8			NBCert	# 2807	77			
Manufacturer/A	ssembler		Designate	ors		Expiration Date	2		
Manufacturer			UV			04/25/2026			
Design Type									
[Safety Relief Valve] F88-8 Capacity Tests: Sec. UV at National Board Testing Lab on October 20, 2004 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 4.200 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Flow Cafe Inter (FLW)									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.75-1 NPS	1 NPS	0.261 in ²	0.577 in	0.27 in	- 50-4292 psi	Air	UV		
Design Name	e: F88-G			NBCert	# 281 <i>°</i>	12			
Manufacturer/A	ssembler		Designate	ors		Expiration Date			
Manufacturer			UV			04/25/2026			

Design Type									
[Safety Valve] F8 Capacity Tests: S Method of Establ Certified Value:10 Media - Test: Air, Set Pressure Def Blowdown Chara Flow Area Config Designed by: Flo	38-G Sec. UV at National B ishing Relieving Cap 0.300 SCFM/PSIA /Gas; Certified: Air, G finition: Pop cteristics: Fixed juration: Nozzle/Full I w Safe Inc. {FLW}	oard Testing La acity: Flow Cap as Lift	ab on November 15, 20 bacity, Slope	010					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1.5 NPS	2 NPS	0.663 in ²	[G] 0.919 in	0.34 in	50-3705 psi	Air	UV		
Design Name	:: F88-J			NBCert ‡	\$ 28101				
Manufacturer/As	ssembler		Designato	rs	Ex	piration Date			
Manufacturer			UV		04	/25/2026			
Design Type									
[Safety Valve] F8 Capacity Tests: S Method of Establ Certified Value:27 Media - Test: Air Set Pressure Def Blowdown Chara Flow Area Config Designed by: Flo	Safety Valve] F88-J Capacity Tests: Sec. UV at National Board Testing Lab on November 15, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value:27.100 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
2 NPS	3 NPS	1.69 in ²	[J] 1.467 in	0.6 in	50-2700 psi	Air	UV		

Fukui Seisakusho Company, Limited (FKI)

Hirakata, Osaka, 573-1132Japan

This Company Manufactures or Assembles:

Design Name: PCV	NBCert # 271	88
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	V	09/27/2024
Design Type		
[Power Actuated Relief Valve] PCV Capacity Tests: Sec. V at National Board Testing Lab on Septe Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.818 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Power Actuated Blowdown Characteristics: Adjustable	mber 27, 2012	

Blowdown Characteristics: Adjustable

Flow Area Configuration: Nozzle/Full Lift Designed by: Fukui Seisakusho Company, Limited {FKI}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1.5 NPS	3 NPS	0.486 in ²	0.787 in	0.276 in	150-5500 psi	Steam	V		
1.5 NPS	3 NPS	0.701 in ²	0.945 in	0.331 in	150-5500 psi	Steam	V		
1.5 NPS	3 NPS	1.095 in ²	1.181 in	0.629 in	150-5500 psi	Steam	V		
2 NPS	4 NPS	1.711 in²	1.476 in	0.787 in	150-5500 psi	Steam	V		
2.5 NPS	4 NPS	2.922 in ²	1.929 in	1.023 in	150-5500 psi	Steam	V		
3 NPS	6 NPS	4.382 in ²	2.362 in	1.259 in	150-5500 psi	Steam	V		
4 NPS	6 NPS	6.847 in ²	2.953 in	1.574 in	150-5500 psi	Steam	V		
6 NPS	8 NPS	15.407 in ²	4.429 in	2.362 in	150-3000 psi	Steam	V		
8 NPS	10 NPS	27.39 in²	5.906 in	3.149 in	150-800 psi	Steam	V		
Design Name	e: PSH 2-1/2	2 K 4		NBCert ‡	¢ 27098	3			
Manufacturer/A	ssembler		Designato	ors	E	Expiration Date			
Manufacturer			V		1	0/09/2027			
Design Type									
[Power Actuated Relief Valve] PSH 2-1/2 K 4 Capacity Tests: Sec. V at National Board Testing Lab on October 26, 1999 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value:87.900 PPH/PSIA Media - Test: Steam; Certified: Steam Set Pressure Definition: Power Actuated Flow Area Configuration: Nozzle/Full Lift Designed by: Fukui Scienckupbe Company Limited (EKI)									
0 ,	-	pany, Ennica (i Nij						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
Inlet Size	Outlet Size 4 NPS	Flow Area 2.006 in ²	Orifice [designator] dia. [K] 1.598 in	Lift 0.511 in	Set Pressure Range 500-5000 psi	Media Steam	Designator V		
Inlet Size 2.5 NPS Design Name	Outlet Size 4 NPS 2: PSH 2-1/2	Flow Area 2.006 in ²	Orifice [designator] dia. [K] 1.598 in	Lift 0.511 in NBCert #	Set Pressure Range 500-5000 psi ¢ 27100	Media Steam	Designator V		
Inlet Size 2.5 NPS Design Name Manufacturer/A	Outlet Size 4 NPS 2: PSH 2-1/2 ssembler	Flow Area 2.006 in ²	Orifice [designator] dia. [K] 1.598 in Designato	Lift 0.511 in NBCert #	Set Pressure Range 500-5000 psi # 27100	Media Steam	Designator V		
Inlet Size 2.5 NPS Design Name Manufacturer/A Manufacturer	Outlet Size 4 NPS e: PSH 2-1/2 ssembler	Flow Area 2.006 in ²	Orifice [designator] dia. [K] 1.598 in Designato	Lift 0.511 in NBCert #	Set Pressure Range 500-5000 psi # 27100 E 1	Media Steam	Designator V		
Inlet Size 2.5 NPS Design Name Manufacturer/A Manufacturer Design Type	Outlet Size 4 NPS :: PSH 2-1/2 ssembler	Flow Area 2.006 in ²	Orifice [designator] dia. [K] 1.598 in Designato	Lift 0.511 in NBCert #	Set Pressure Range 500-5000 psi # 27100 # 1	Media Steam	Designator V		
Inlet Size 2.5 NPS Design Name Manufacturer/A Manufacturer Design Type [Power Actuated Capacity Tests: S Method of Establ Certified Value:1 Media - Test: Sta Set Pressure De Flow Area Config Designed by: Ful	Outlet Size 4 NPS 4 NPS PSH 2-1/2 ssembler Relief Valve] PSH 2 Sec. V at National Bo lishing Relieving Cap 21.90 PPH/PSIA eam; Certified: Steam finition: Power Actuat guration: Nozzle/Full kui Seisakusho Com	Flow Area 2.006 in ² 2.1/2 L 4 ard Testing Lal acity: Flow Cal h ted Lift pany, Limited {	Orifice [designator] dia. [K] 1.598 in Designato V o on October 26, 1999 pacity, Slope	Lift 0.511 in NBCert #	Set Pressure Range 500-5000 psi # 27100 # 1	Media Steam	Designator V		
Inlet Size 2.5 NPS Design Name Manufacturer/A Manufacturer Design Type [Power Actuated Capacity Tests: S Method of Establ Certified Value:1 Media - Test: Sta Set Pressure De Flow Area Config Designed by: Ful Inlet Size	Outlet Size 4 NPS 4 NPS PSH 2-1/2 ssembler Relief Valve] PSH 2 Sec. V at National Bo lishing Relieving Cap 21.90 PPH/PSIA eam; Certified: Steam finition: Power Actuat juration: Nozzle/Full I kui Seisakusho Comp Outlet Size	Flow Area 2.006 in ² 2.1/2 L 4 ard Testing Lat acity: Flow Cap ted Lift pany, Limited {	Orifice [designator] dia. [K] 1.598 in Designato V po on October 26, 1999 pacity, Slope FKI} Orifice [designator] dia.	Lift 0.511 in NBCert # Irs	Set Pressure Range 500-5000 psi # 27100 # 27100 E 1 1 1 1 1	Media Steam C Expiration Date 10/09/2027	Designator V Designator		
Inlet Size 2.5 NPS Design Name Manufacturer/A Manufacturer Design Type [Power Actuated Capacity Tests: St Method of Establ Certified Value:1 Media - Test: Sta Set Pressure De Flow Area Config Designed by: Ful Inlet Size 2.5 NPS	Outlet Size 4 NPS 2 PSH 2-1/2 ssembler Relief Valve] PSH 2 Sec. V at National Bo ishing Relieving Cap 21.90 PPH/PSIA eam; Certified: Steam finition: Power Actuat juration: Nozzle/Full kui Seisakusho Comp Outlet Size 4 NPS	Flow Area 2.006 in ² 2.006 in ² 2.L 4 2.L 4 2.	Orifice [designator] dia. [K] 1.598 in Designato V boon October 26, 1999 pacity, Slope FKI} Orifice [designator] dia. [L] 1.928 in	Lift 0.511 in NBCert # ors	Set Pressure 500-5000 psi 277100 277100 E C Set Pressure Range 500-5000 psi	Media Steam D Expiration Date 10/09/2027	Designator V Designator		
Inlet Size 2.5 NPS Design Name Manufacturer/A Manufacturer Design Type [Power Actuated Capacity Tests: S Method of Establ Certified Value:1 Media - Test: Sta Set Pressure De Flow Area Config Designed by: Ful Inlet Size 2.5 NPS Design Name	Outlet Size 4 NPS 2 PSH 2-1/2 ssembler Relief Valve] PSH 2 Sec. V at National Bo Sec. V at National Bo Dishing Relieving Cap 21.90 PPH/PSIA Seam; Certified: Steam finition: Power Actuat Juration: Nozzle/Full kui Seisakusho Comp Outlet Size 4 NPS 2 PSL Series	Flow Area 2.006 in ² 2 L 4 2	Orifice [designator] dia. [K] 1.598 in Designato V bo on October 26, 1999 pacity, Slope FKI} Orifice [designator] dia. [L] 1.928 in	Lift 0.511 in NBCert # ors Lift 0.59 in NBCert #	Set Pressure 500-5000 psi # 27100 # 27100 # 27100 # 27100 # 27100 # 27100 # 27100 # 27100 # 27002	Media Steam C Expiration Date 10/09/2027 Media Steam	Designator V Designator		
Inlet Size 2.5 NPS Design Name Manufacturer/A Manufacturer Design Type [Power Actuated Capacity Tests: S Method of Establ Certified Value:1 Media - Test: Sta Set Pressure De Flow Area Config Designed by: Ful Inlet Size 2.5 NPS Design Name Manufacturer/A	Outlet Size 4 NPS 2 PSH 2-1/2 ssembler Relief Valve] PSH 2 Sec. V at National Bo ishing Relieving Cap 21.90 PPH/PSIA eam; Certified: Steam finition: Power Actuat juration: Nozzle/Full I kui Seisakusho Comp Outlet Size 4 NPS 2 PSL Series ssembler	Flow Area 2.006 in ² L 4 L 4 2-1/2 L 4 ard Testing Lal acity: Flow Cal hed Lift pany, Limited { Flow Area 2.922 in ²	Orifice [designator] dia. [K] 1.598 in Designato V bo on October 26, 1999 pacity, Slope FKI} Orifice [designator] dia. [L] 1.928 in Designato	Lift 0.511 in NBCert # ors Lift 0.59 in NBCert #	Set Pressure 500-5000 psi # 27100 # 27100 # 27100 # 27100 # 27100 # 27100 # 27100 # 27000 # 2702 # 2702	Media Steam Conspiration Date 0/09/2027	Designator V Designator V V V V V V V V V V V V V V V V V V V		

[Pilot Operated Pressure Relief Valve] PSL Series Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on February 22, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.843 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift

Designed by: Fukui Seisakusho Company, Limited {FKI}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
2 NPS	3 NPS	2.466 in ²	1.772 in	0.552 in	15-740 psi	Air	UV
2.5 NPS	3 NPS	4.094 in ²	2.283 in	0.709 in	15-740 psi	Air	UV
3 NPS	4 NPS	6.136 in ²	2.795 in	0.867 in	15-740 psi	Air	UV
4 NPS	6 NPS	10.3 in²	3.622 in	1.103 in	15-740 psi	Air	UV
6 NPS	8 NPS	22.19 in ²	5.315 in	1.615 in	15-740 psi	Air	UV
8 NPS	10 NPS	39.45 in²	7.087 in	2.126 in	15-740 psi	Air	UV
10 NPS	12 NPS	56.8 in²	8.504 in	2.56 in	15-740 psi	Air	UV
12 NPS	16 NPS	90.07 in ²	10.709 in	3.228 in	15-740 psi	Air	UV
14 NPS	18 NPS	115.48 in²	12.126 in	3.759 in	15-740 psi	Air	UV
16 NPS	18 NPS	161.3 in²	14.331 in	4.443 in	15-740 psi	Air	UV
18 NPS	24 NPS	202.65 in ²	16.063 in	4.98 in	15-740 psi	Air	UV
20 NPS	24 NPS	246.53 in ²	17.717 in	5.492 in	15-740 psi	Air	UV

Design Name: 🔹 RE Serie

NBCert #

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<u> 27032</u>
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/29/2024

Design Type

[Safety Relief Valve] RE Series Capacity Tests: Sec. UV at unknown lab on October 1, 1979 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.869 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Fukui Seisakusho Company, Limited {FKI}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-2 NPS	1-3 NPS	0.1053 in ²	[DS] 0.3661 in	0.0945 in	15-10000 psi	Air	UV
0.75-2 NPS	1-3 NPS	0.1053 in ²	[DS] 0.3661 in	0.0945 in	15-6000 psi	Steam	UV
0.75-2 NPS	1-3 NPS	0.1368 in ²	[D] 0.4173 in	0.106 in	15-10000 psi	Air	UV
0.75-2 NPS	1-3 NPS	0.1368 in ²	[D] 0.4173 in	0.106 in	15-6000 psi	Steam	UV
15-15 mm	1-3 NPS	0.1368 in ²	[D] 0.4173 in	0.106 in	15-10000 psi	Air	UV
15-15 mm	1-3 NPS	0.1368 in ²	[D] 0.4173 in	0.106 in	15-6000 psi	Steam	UV
0.75-2 NPS	1-3 NPS	0.1872 in ²	[ES] 0.4882 in	0.122 in	15-10000 psi	Air	UV
0.75-2 NPS	1-3 NPS	0.1872 in ²	[ES] 0.4882 in	0.122 in	15-6000 psi	Steam	UV
0.75-2 NPS	1-3 NPS	0.2812 in ²	[E] 0.5984 in	0.15 in	15-10000 psi	Air	UV

0.75-2 NPS	1-3 NPS	0.2812 in ²	[E] 0.5984 in	0.15 in	15-6000 psi	Steam	UV
1-2 NPS	2-3 NPS	0.3772 in ²	[F] 0.693 in	0.174 in	15-10000 psi	Air	UV
1-2 NPS	2-3 NPS	0.3772 in ²	[F] 0.693 in	0.174 in	15-6000 psi	Steam	UV
1.5-2 NPS	2-4 NPS	0.5217 in ²	[GS] 0.815 in	0.205 in	15-10000 psi	Air	UV
1.5-2 NPS	2-4 NPS	0.5217 in ²	[GS] 0.815 in	0.205 in	15-6000 psi	Steam	UV
1.5-2 NPS	2-4 NPS	0.5945 in ²	[G] 0.87 in	0.221 in	15-10000 psi	Air	UV
1.5-2 NPS	2-4 NPS	0.5945 in ²	[G] 0.87 in	0.221 in	15-6000 psi	Steam	UV
1.5-2 NPS	2-4 NPS	0.9212 in ²	[H] 1.083 in	0.272 in	15-10000 psi	Air	UV
1.5-2 NPS	2-4 NPS	0.9212 in ²	[H] 1.083 in	0.272 in	15-6000 psi	Steam	UV
2-3 NPS	3-6 NPS	1.089 in ²	[JS] 1.177 in	0.295 in	15-3000 psi	Air	UV
2-3 NPS	3-6 NPS	1.089 in ²	[JS] 1.177 in	0.295 in	15-3000 psi	Steam	UV
1.5-2 NPS	2-4 NPS	1.095 in ²	[H2] 1.181 in	0.295 in	15-10000 psi	Air	UV
1.5-2 NPS	2-4 NPS	1.095 in ²	[H2] 1.181 in	0.295 in	15-6000 psi	Steam	UV
2-3 NPS	3-6 NPS	1.491 in ²	[J] 1.378 in	0.346 in	15-3000 psi	Air	UV
2-3 NPS	3-6 NPS	1.491 in ²	[J] 1.378 in	0.346 in	15-3000 psi	Steam	UV
2.5-3 NPS	3-6 NPS	2.128 in ²	[K] 1.646 in	0.413 in	15-3000 psi	Air	UV
2.5-3 NPS	3-6 NPS	2.128 in ²	[K] 1.646 in	0.413 in	15-3000 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.517 in	15-3500 psi	Air	UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.517 in	15-3500 psi	Steam	UV
4 NPS	6 NPS	3.643 in ²	[MS] 2.154 in	0.539 in	15-3000 psi	Air	UV
4 NPS	6 NPS	3.643 in ²	[MS] 2.154 in	0.539 in	15-3000 psi	Steam	UV
4 NPS	6 NPS	4.165 in ²	[M] 2.303 in	0.579 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.165 in ²	[M] 2.303 in	0.579 in	15-3000 psi	Steam	UV
4 NPS	6 NPS	5.063 in ²	[N] 2.539 in	0.638 in	15-1500 psi	Air	UV
4 NPS	6 NPS	5.063 in ²	[N] 2.539 in	0.638 in	15-1500 psi	Steam	UV
4 NPS	6 NPS	7.407 in ²	[P] 3.071 in	0.768 in	15-2000 psi	Steam	UV
4 NPS	6 NPS	7.407 in ²	[P] 3.071 in	0.768 in	15-2000 psi	Air	UV
6 NPS	8, 10 NPS	10.918 in ²	[QS] 3.728 in	0.933 in	15-800 psi	Air	UV
6 NPS	8, 10 NPS	10.918 in ²	[QS] 3.728 in	0.933 in	15-800 psi	Steam	UV
6 NPS	8, 10 NPS	13.042 in ²	[Q] 4.075 in	1.02 in	15-800 psi	Air	UV
6 NPS	8, 10 NPS	13.042 in ²	[Q] 4.075 in	1.02 in	15-800 psi	Steam	UV
6 NPS	8, 10 NPS	15.353 in²	[RS] 4.421 in	1.106 in	15-800 psi	Air	UV
6 NPS	8, 10 NPS	15.353 in²	[RS] 4.421 in	1.106 in	15-800 psi	Steam	UV
6 NPS	8, 10 NPS	18.505 in ²	[R] 4.854 in	1.216 in	15-800 psi	Air	UV
6 NPS	8, 10 NPS	18.505 in ²	[R] 4.854 in	1.216 in	15-800 psi	Steam	UV
8 NPS	10 NPS	29.244 in ²	[T] 6.102 in	1.528 in	15-600 psi	Air	UV
8 NPS	10 NPS	29.244 in ²	[T] 6.102 in	1.528 in	15-600 psi	Steam	UV
8 NPS	10 NPS	32.98 in ²	[Ts] 6.48 in	1.622 in	15-600 psi	Air	UV
8 NPS	10 NPS	32.98 in ²	[Ts] 6.48 in	1.622 in	15-600 psi	Steam	UV
10 NPS	14 NPS	47.97 in²	[V] 7.815 in	1.957 in	15-500 psi	Air	UV
10 NPS	14 NPS	47.97 in ²	[V] 7.815 in	1.957 in	15-500 psi	Steam	UV

12 NPS	16 NPS	68.96 in ²	[W] 9.37 in	2.343 in	15-500 psi	Air	UV		
12 NPS	16 NPS	68.96 in ²	[W] 9.37 in	2.343 in	15-500 psi	Steam	UV		
14 NPS	18 NPS	94.08 in ²	[Y] 10.945 in	2.737 in	15-500 psi	Air	UV		
14 NPS	18 NPS	94.08 in ²	[Y] 10.945 in	2.737 in	15-500 psi	Steam	UV		
16 NPS	18 NPS	103.8 in ²	[Z] 11.496 in	2.753 in	15-500 psi	Air	UV		
16 NPS	18 NPS	103.8 in ²	[Z] 11.496 in	2.753 in	15-500 psi	Steam	UV		
16 NPS	18 NPS	123.49 in ²	[Z2] 12.539 in	3.138 in	15-500 psi	Air	UV		
16 NPS	18 NPS	123.49 in ²	[Z2] 12.539 in	3.138 in	15-500 psi	Steam	UV		
18 NPS	24 NPS	155.15 in²	[A] 14.055 in	3.516 in	15-500 psi	Air	UV		
18 NPS	24 NPS	155.15 in²	[A] 14.055 in	3.516 in	15-500 psi	Steam	UV		
20 NPS	24 NPS	191.87 in²	[B] 15.63 in	3.91 in	15-500 psi	Air	UV		
20 NPS	24 NPS	191.87 in²	[B] 15.63 in	3.91 in	15-500 psi	Steam	UV		
Design Name	e: RECL & RI	EBL (Liquic	ls)	NBCert ‡	# 27043				
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	_		
Manufacturer			UV, V		05	/29/2024			
Design Type									
[Relief Valve] RECL & REBL (Liquids) Capacity Tests: Sec. UV, V at unknown lab on January 14, 1986 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.717 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Fukui Seisakusho Company, Limited {FKI}									
Set Pressure De Blowdown Chara Flow Area Config Designed by: Ful	finition: First Steady acteristics: Fixed guration: Nozzle/Full kui Seisakusho Com	Stream Lift pany, Limited {	FKI}						
Set Pressure De Blowdown Chara Flow Area Config Designed by: Ful Inlet Size	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Com Outlet Size	Stream Lift pany, Limited { Flow Area	FKI} Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
Set Pressure Def Blowdown Chara Flow Area Config Designed by: Ful Inlet Size 0.5-0.5 NPS	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in	Lift 0.069 in	Set Pressure Range 15-10000 psi	Media Water	Designator UV, V		
Set Pressure De Blowdown Chara Flow Area Config Designed by: Ful Inlet Size 0.5-0.5 NPS 0.75-2 NPS	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ² 0.1053 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in	Lift 0.069 in 0.0945 in	Set Pressure Range 15-10000 psi 15-10000 psi	Media Water Water	Designator UV, V UV		
Set Pressure De Blowdown Chara Flow Area Config Designed by: Ful Inlet Size 0.5-0.5 NPS 0.75-2 NPS 0.75-2 NPS	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Comp Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ² 0.1053 in ² 0.1368 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in	Lift 0.069 in 0.0945 in 0.106 in	Set Pressure Range 15-10000 psi 15-10000 psi 15-10000 psi	Media Water Water Water	Designator UV, V UV UV		
Set Pressure De Blowdown Chara Flow Area Config Designed by: Ful Inlet Size 0.5-0.5 NPS 0.75-2 NPS 0.75-2 NPS 15-15 mm	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Comp Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ² 0.1053 in ² 0.1368 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [D] 0.4173 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in	Set Pressure Range Image 15-10000 psi Image 15-10000 psi Image 15-10000 psi Image 15-10000 psi Image	Media Water Water Water Water	Designator UV, V UV UV UV, V UV, V		
Set Pressure De Blowdown Chara Flow Area Config Designed by: Ful 0.5-0.5 NPS 0.75-2 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Comp Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ² 0.1053 in ² 0.1368 in ² 0.1368 in ² 0.1368 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [D] 0.4173 in [ES] 0.4882 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in	Set Pressure Range Image 15-10000 psi Image	Media Water Water Water Water Water	Designator UV, V UV UV, V UV, V UV, V UV, V UV, V UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Ful 	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ² 0.1053 in ² 0.1368 in ² 0.1368 in ² 0.1372 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [D] 0.4173 in [ES] 0.4882 in [E] 0.5984 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.15 in	Set Pressure Range Image 15-10000 psi Image	Media Water Water Water Water Water Water	Designator UV, V UV UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Ful Inlet Size 0.75-2 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS 0.75-2 NPS 0.75-2 NPS	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-3 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ² 0.1053 in ² 0.1368 in ² 0.1368 in ² 0.1872 in ² 0.2812 in ² 0.3772 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [D] 0.4173 in [ES] 0.4882 in [ES] 0.5984 in [F] 0.693 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.15 in 0.174 in	Set Pressure Range Image 15-10000 psi Image	Media Water Water Water Water Water Water Water	Designator UV, V UV UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Ful 	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Comp Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-3 NPS 2-4 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ² 0.1053 in ² 0.1368 in ² 0.1368 in ² 0.1368 in ² 0.2812 in ² 0.3772 in ² 0.5217 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [D] 0.4173 in [ES] 0.4882 in [ES] 0.5984 in [F] 0.693 in [GS] 0.815 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.15 in 0.174 in	Set Pressure 15-10000 psi	Media Water Water Water Water Water Water Water	Designator UV, V UV UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Ful 0.5-0.5 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS 1.2 NPS 1.5-2 NPS 1.5-2 NPS	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-3 NPS 2-4 NPS 2-4 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ² 0.1053 in ² 0.1368 in ² 0.1368 in ² 0.1368 in ² 0.1367 in ² 0.2812 in ² 0.2812 in ² 0.5217 in ² 0.5945 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [D] 0.4173 in [E] 0.4882 in [ES] 0.4882 in [E] 0.5984 in [F] 0.693 in [GS] 0.815 in [G] 0.87 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.122 in 0.15 in 0.174 in 0.205 in 0.221 in	Set Pressure 15-10000 psi	Media Water Water Water Water Water Water Water Water	Designator UV, V UV UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Full Inlet Size 0.5-0.5 NPS 0.75-2 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS 0.75-2 NPS 1.5-15 mm 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	finition: First Steady s acteristics: Fixed guration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-3 NPS 2-4 NPS 2-4 NPS 2-4 NPS	Stream Lift pany, Limited { Flow Area 0.06 in ² 0.1053 in ² 0.1368 in ² 0.1368 in ² 0.1368 in ² 0.1372 in ² 0.2812 in ² 0.3772 in ² 0.5217 in ² 0.5945 in ²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [DS] 0.3661 in [D] 0.4173 in [D] 0.4173 in [ES] 0.4882 in [ES] 0.4882 in [ES] 0.4882 in [G] 0.5984 in [F] 0.693 in [GS] 0.815 in [G] 0.87 in [H] 1.083 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.15 in 0.174 in 0.205 in 0.221 in	Set Pressure 15-10000 psi	Media Water Water Water Water Water Water Water Water Water	Designator UV, V UV UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Full Inlet Size 0.5-0.5 NPS 0.75-2 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2.3 NPS	finition: First Steady s acteristics: Fixed yuration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-4 NPS 2-4 NPS 2-4 NPS 2-4 NPS 3-6 NPS	Stream Lift pany, Limited { Flow Area 0.06 in² 0.1053 in² 0.1368 in² 0.1368 in² 0.1372 in² 0.2812 in² 0.5217 in² 0.5945 in² 0.9212 in² 1.089 in²	FKI} Orifice [designator] dia. [C] 0.2756 in [D] 0.3661 in [D] 0.4173 in [C] 0.5984 in [G] 0.693 in [G] 0.87 in [G] 0.87 in [J] 1.083 in [JS] 1.177 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.15 in 0.174 in 0.205 in 0.221 in 0.221 in	Set Pressure 15-10000 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV, V UV UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Ful Inlet Size 0.5-0.5 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS 15-15 mm 1.5-2 NPS	finition: First Steady s acteristics: Fixed yuration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-4 NPS 2-4 NPS 2-4 NPS 3-6 NPS 2-4 NPS	Stream Lift pany, Limited { Flow Area 0.06 in² 0.1053 in² 0.1368 in² 0.5217 in² 0.5945 in² 1.089 in² 1.095 in²	FKI} Orifice (designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [C] 0.5984 in [G] 0.87 in [G] 0.87 in [J] 1.083 in [JS] 1.177 in [H2] 1.181 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.122 in 0.174 in 0.205 in 0.221 in 0.221 in 0.225 in	Set Pressure 15-10000 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV, V UV UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Full Inlet Size 0.5-0.5 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS 15-15 mm 0.75-2 NPS 15-15 mm 1.5-2 NPS 2-3 NPS 1.5-2 NPS	finition: First Steady S acteristics: Fixed yuration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-4 NPS 2-4 NPS 2-4 NPS 2-4 NPS 3-6 NPS 3-6 NPS	Stream Lift pany, Limited { Flow Area 0.06 in² 0.1053 in² 0.1368 in² 0.5217 in² 0.5945 in² 0.9212 in² 1.089 in² 1.095 in² 1.491 in²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [D] 0.4173 in [D] 0.4173 in [E] 0.5984 in [E] 0.5984 in [GS] 0.815 in [G] 0.87 in [J] 1.083 in [J] 1.378 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.122 in 0.174 in 0.205 in 0.221 in 0.221 in 0.225 in 0.295 in 0.295 in	Set Pressure 15-10000 psi 15-3000 psi 15-3000 psi	MediaWater	Designator UV, V UV UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Full Inlet Size 0.5-0.5 NPS 0.75-2 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS 0.75-2 NPS 1.5-15 mm 1.5-2 NPS 2.3 NPS 2.3 NPS 2.5-3 NPS	finition: First Steady S acteristics: Fixed yuration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-4 NPS 2-4 NPS 2-4 NPS 2-4 NPS 2-4 NPS 3-6 NPS 3-6 NPS 3-6 NPS	Stream Lift pany, Limited { Flow Area 0.06 in² 0.1053 in² 0.1368 in² 0.13772 in² 0.5217 in² 0.5945 in² 1.089 in² 1.095 in² 1.491 in² 2.128 in²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [ES] 0.4882 in [G] 0.5984 in [F] 0.693 in [G] 0.87 in [J] 1.083 in [JS] 1.177 in [J] 1.378 in [K] 1.646 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.122 in 0.15 in 0.215 in 0.221 in 0.221 in 0.225 in 0.295 in 0.295 in 0.346 in 0.413 in	Set Pressure 15-10000 psi 15-3000 psi 15-3000 psi 15-3000 psi	MediaWater	Designator UV, V UV UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Full Inlet Size 0.5-0.5 NPS 0.75-2 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS 15-15 mm 0.75-2 NPS 15-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 2.5-3 NPS 2.5-3 NPS 3-4 NPS	finition: First Steady 5 acteristics: Fixed yuration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-4 NPS 2-4 NPS 2-4 NPS 2-4 NPS 3-6 NPS 3-6 NPS 3-6 NPS 3-6 NPS 3-6 NPS	Stream Lift pany, Limited { Flow Area 0.06 in² 0.1053 in² 0.1368 in² 0.1368 in² 0.1368 in² 0.1368 in² 0.1372 in² 0.2812 in² 0.5217 in² 0.5945 in² 1.089 in² 1.491 in² 2.128 in² 3.317 in²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [GS] 0.4882 in [G] 0.5984 in [G] 0.693 in [G] 0.87 in [J] 1.083 in [J] 1.177 in [J] 1.378 in [K] 1.646 in [K] 1.645 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.122 in 0.15 in 0.275 in 0.221 in 0.225 in 0.295 in 0.295 in 0.346 in 0.346 in 0.413 in	Set Pressure 15-10000 psi 15-3000 psi 15-3000 psi 15-3000 psi 15-3000 psi 15-3000 psi	MediaWater	Designator UV, V		
Set Pressure Dei Blowdown Chara Flow Area Config Designed by: Full Inlet Size 0.5-0.5 NPS 0.75-2 NPS 15-15 mm 0.75-2 NPS 15-15 mm 0.75-2 NPS 15-15 mm 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2.3 NPS 1.5-2 NPS 2.5-3 NPS 3-4 NPS 4 NPS	finition: First Steady i acteristics: Fixed yuration: Nozzle/Full kui Seisakusho Com Outlet Size 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 1-3 NPS 2-4 NPS 2-4 NPS 2-4 NPS 2-4 NPS 3-6 NPS 3-6 NPS 3-6 NPS 3-6 NPS 4-6 NPS 4-6 NPS	Stream Lift pany, Limited { Flow Area 0.06 in² 0.1053 in² 0.1368 in² 0.2812 in² 0.5217 in² 0.5945 in² 1.089 in² 1.095 in² 1.491 in² 2.128 in² 3.317 in² 3.643 in²	FKI} Orifice [designator] dia. [C] 0.2756 in [DS] 0.3661 in [D] 0.4173 in [D] 0.4173 in [D] 0.4173 in [D] 0.4173 in [E] 0.5984 in [E] 0.5984 in [GS] 0.815 in [G] 0.87 in [J] 1.083 in [J] 1.378 in [J] 2.055 in [L] 2.055 in [MS] 2.154 in	Lift 0.069 in 0.0945 in 0.106 in 0.106 in 0.122 in 0.122 in 0.174 in 0.205 in 0.221 in 0.221 in 0.225 in 0.295 in 0.295 in 0.295 in 0.346 in 0.346 in 0.517 in 0.539 in	Set Pressure 15-10000 psi 15-3000 psi	MediaWater	Designator UV, V UV UV, V UV, V		

4-4 NPS	6 NPS	5.063 in ²	[N] 2.539 in	0.638 in	15-1500 psi	Water	UV, V			
4-4 NPS	6 NPS	7.407 in ²	[P] 3.071 in	0.768 in	15-2000 psi	Water	UV, V			
6 NPS	8-10 NPS	10.918 in ²	[QS] 3.728 in	0.933 in	15-800 psi	Water	UV			
6-6 NPS	8-10 NPS	13.042 in ²	[Q] 4.075 in	1.02 in	15-800 psi	Water	UV, V			
6 NPS	8-10 NPS	15.353 in ²	[RS] 4.421 in	1.106 in	15-800 psi	Water	UV			
6-6 NPS	8-10 NPS	18.505 in ²	[R] 4.854 in	1.216 in	15-800 psi	Water	UV, V			
8-8 NPS	10 NPS	29.244 in ²	[T] 6.102 in	1.528 in	15-600 psi	Water	UV, V			
8-8 NPS	10 NPS	32.979 in ²	[Ts] 6.48 in	1.622 in	15-600 psi	Water	UV, V			
10-10 NPS	14 NPS	47.97 in ²	[V] 7.815 in	1.957 in	15-500 psi	Water	UV, V			
12-12 NPS	16 NPS	68.96 in ²	[W] 9.37 in	2.343 in	15-500 psi	Water	UV, V			
14-14 NPS	18 NPS	94.08 in ²	[Y] 10.945 in	2.737 in	15-500 psi	Water	UV, V			
16-16 NPS	18 NPS	103.8 in ²	[Z] 11.496 in	2.753 in	15-500 psi	Water	UV, V			
16-16 NPS	18 NPS	123.49 in ²	[Z2] 12.539 in	3.138 in	15-500 psi	Water	UV, V			
18-18 NPS	24 NPS	155.15 in²	[A] 14.055 in	3.516 in	15-500 psi	Water	UV, V			
20-20 NPS	24 NPS	191.87 in²	[B] 15.63 in	3.91 in	15-500 psi	Water	UV, V			
Design Name	e: RP Series			NBCert	# 27054					
					-					
Manufacturer/A	ssembler		Designato	ors	E	Expiration Date				
Manufacturer			UV		09	9/09/2024				
Design Type										
[Pilot Operated Pressure Relief Valve] RP Series Capacity Tests: Sec. UV at unknown lab on February 21, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift										
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu	Pressure Relief Valve Sec. UV at unknown lishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I and Fixed for Lift pany, Limited {	y 21, 1980 pacity, K Discharge Mod. Pilot FKI}							
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full ikui Seisakusho Com	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited {	y 21, 1980 pacity, K Discharge Mod. Pilot [FKI] Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS	P] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ²	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in	Lift 0.1 in	Set Pressure Range 15-10000 psi	Media Air	Designator			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ² 0.124 in ²	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in	Lift 0.1 in 0.1 in	Set Pressure Range 15-10000 psi 15-6000 psi	Media Air Steam	Designator UV UV			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1-2 NPS	Pressure Relief Valve Sec. UV at unknown lishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ² 0.124 in ² 0.219 in ²	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [D] 0.397 in	Lift 0.1 in 0.1 in 0.134 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-10000 psi	Media Air Steam Air	Designator UV UV UV			
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full ikui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ² 0.124 in ² 0.219 in ²	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [D] 0.528 in [E] 0.528 in	Lift 0.1 in 0.1 in 0.134 in 0.134 in	Set Pressure Range Content 15-10000 psi 15-6000 psi 15-10000 psi 15-6000 psi	Media Air Steam Air Steam	Designator UV UV UV UV			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ² 0.124 in ² 0.219 in ² 0.219 in ² 0.343 in ²	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [E] 0.528 in [E] 0.528 in [E] 0.528 in	Lift 0.1 in 0.1 in 0.134 in 0.134 in 0.136 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-10000 psi 15-10000 psi 15-6000 psi 15-10000 psi	Media Air Steam Air Air Steam	Designator UV UV UV UV UV			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, O finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ² 0.219 in ² 0.219 in ² 0.343 in ²	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [E] 0.528 in [E] 0.528 in [F] 0.661 in	Lift 0.1 in 0.1 in 0.134 in 0.134 in 0.136 in	Set Pressure Range Content 15-10000 psi 15-6000 psi 15-10000 psi 15-10000 psi 15-6000 psi 15-6000 psi 15-10000 psi 15-10000 psi	Media Air Steam Air Steam Air Steam	Designator UV UV UV UV UV UV			
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless //Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3, 4 NPS	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ² 0.219 in ² 0.219 in ² 0.343 in ² 0.343 in ² 0.562 in ²	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [D] 0.397 in [E] 0.528 in [E] 0.528 in [F] 0.661 in [F] 0.661 in	Lift 0.1 in 0.1 in 0.1 34 in 0.134 in 0.166 in 0.166 in 0.212 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-10000 psi 15-6000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-10000 psi	Media Air Steam Air Steam Air Steam Air Air	Designator UV			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS	Pressure Relief Valve Sec. UV at unknown Jishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3, 4 NPS 3, 4 NPS	 P) RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in² 0.124 in² 0.219 in² 0.219 in² 0.343 in² 0.343 in² 0.562 in² 0.562 in² 	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [D] 0.397 in [E] 0.528 in [E] 0.528 in [F] 0.661 in [F] 0.661 in [G] 0.846 in	Lift 0.1 in 0.1 in 0.1 34 in 0.134 in 0.166 in 0.166 in 0.212 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-6000 psi	Media Air Steam Air Steam Air Steam Air Steam	Designator UV			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1.25-3 NPS 1.25-3 NPS 1.5-2 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ² 0.124 in ² 0.219 in ² 0.219 in ² 0.343 in ² 0.343 in ² 0.562 in ² 0.874 in ²	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [E] 0.528 in [E] 0.528 in [E] 0.661 in [F] 0.661 in [G] 0.846 in [G] 0.846 in	Lift 0.1 in 0.1 in 0.1 34 in 0.134 in 0.136 in 0.166 in 0.166 in 0.212 in 0.212 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-10000 psi 15-6000 psi 15-10000 psi 15-6000 psi 15-6000 psi 15-6000 psi 15-6000 psi 15-6000 psi 15-6000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-6000 psi	Media Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1-2 NPS 1.25-3 NPS 1.25-3 NPS 1.5-2 NPS 1.5-2 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ² 0.219 in ² 0.219 in ² 0.343 in ² 0.343 in ² 0.562 in ² 0.874 in ²	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [E] 0.528 in [E] 0.528 in [F] 0.661 in [F] 0.661 in [G] 0.846 in [G] 0.846 in [G] 0.846 in [H] 1.055 in	Lift 0.1 in 0.1 in 0.134 in 0.134 in 0.136 in 0.166 in 0.212 in 0.212 in 0.212 in 0.264 in	Set Pressure 15-10000 psi 15-6000 psi 15-10000 psi 15-6000 psi 15-6000 psi 15-10000 psi 15-6000 psi 15-6000 psi 15-6000 psi 15-6000 psi	Media Air Steam Air Steam Air Steam Air Steam Air Air	Designator UV			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1.25-3 NPS 1.5-2 NPS 1.5-2 NPS 1.5-3 NPS	Pressure Relief Valve Sec. UV at unknown Jishing Relieving Cap 0.877 Unitless //Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS 3, 4 NPS	e] RP Series lab on Februar bacity: Flow Ca Gas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in ² 0.219 in ² 0.219 in ² 0.343 in ² 0.343 in ² 0.562 in ² 0.874 in ² 1.35 in ²	y 21, 1980 pacity, K Charge Mod. Pilot FKI} Crifice [designator] dia. [D] 0.397 in [D] 0.397 in [D] 0.397 in [D] 0.397 in [E] 0.528 in [E] 0.528 in [E] 0.661 in [F] 0.661 in [G] 0.846 in [G] 0.846 in [H] 1.055 in [H] 1.055 in [I] 1.311 in	Lift 0.1 in 0.1 in 0.1 34 in 0.134 in 0.136 in 0.166 in 0.212 in 0.212 in 0.212 in 0.264 in	Set Pressure 15-10000 psi 15-6000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-10000 psi 15-6000 psi	Media Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1.25-3 NPS 1.5-2 NPS 1.5-3 NPS 1.5-3 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3, 4 NPS	 P) RP Series lab on Februar bacity: Flow Ca Sas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in² 0.124 in² 0.219 in² 0.219 in² 0.343 in² 0.343 in² 0.562 in² 0.874 in² 1.35 in² 1.35 in² 	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [D] 0.397 in [D] 0.397 in [E] 0.528 in [E] 0.528 in [E] 0.528 in [F] 0.661 in [F] 0.661 in [F] 0.661 in [G] 0.846 in [G] 0.846 in [H] 1.055 in [H] 1.055 in [H] 1.311 in	Lift 0.1 in 0.1 in 0.1 in 0.134 in 0.134 in 0.166 in 0.166 in 0.212 in 0.212 in 0.212 in 0.264 in 0.264 in 0.328 in	Set Pressure Range 15-10000 psi 15-6000 psi 15-10000 psi 15-10000 psi 15-6000 psi	Media Air Steam Air Steam Air Steam Air Steam Air Steam Air Air	Designator UV UV			
[Pilot Operated F Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu Inlet Size 1-2 NPS 1-2 NPS 1.25-3 NPS 1.5-2 NPS 1.5-2 NPS 1.5-3 NPS 1.5-3 NPS 1.5-3 NPS 1.5-3 NPS 2-3 NPS	Pressure Relief Valve Sec. UV at unknown dishing Relieving Cap 0.877 Unitless r/Gas; Certified: Air, C finition(1): Pop; (3): acteristics: Adjustable guration: Nozzle/Full kui Seisakusho Com Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3, 4 NPS	 P) RP Series lab on Februar bacity: Flow Ca Sas, Steam Initial Audible I e and Fixed for Lift pany, Limited { Flow Area 0.124 in² 0.124 in² 0.219 in² 0.219 in² 0.219 in² 0.343 in² 0.362 in² 0.562 in² 0.874 in² 1.35 in² 1.431 in² 	y 21, 1980 pacity, K Discharge Mod. Pilot FKI} Orifice [designator] dia. [D] 0.397 in [D] 0.397 in [D] 0.397 in [E] 0.528 in [E] 0.528 in [E] 0.528 in [E] 0.661 in [F] 0.661 in [G] 0.846 in [G] 0.846 in [G] 0.846 in [I] 1.055 in [H] 1.055 in [I] 1.311 in [J] 1.311 in [J] 1.35 in	Lift 0.1 in 0.1 in 0.1 in 0.134 in 0.134 in 0.166 in 0.166 in 0.212 in 0.212 in 0.212 in 0.264 in 0.264 in 0.328 in	Set Pressure 15-10000 psi 15-6000 psi 15-10000 psi 15-6000 psi	Media Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV UV			

2-3 NPS	3, 4 NPS	2.046 in ²	[K] 1.614 in	0.404 in	15-10000 psi	Air	UV
2-3 NPS	3, 4 NPS	2.046 in ²	[K] 1.614 in	0.404 in	15-6000 psi	Steam	UV
2 NPS	3, Dual 3 NPS	2.53 in ²	[2] 1.795 in	0.449 in	15-4000 psi	Air	UV
2 NPS	3, Dual 3 NPS	2.53 in ²	[2] 1.795 in	0.449 in	15-4000 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.179 in ²	[L] 2.012 in	0.503 in	15-5000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.179 in ²	[L] 2.012 in	0.503 in	15-5000 psi	Steam	UV
3-4 NPS	6 NPS	4.011 in ²	[M] 2.26 in	0.565 in	15-4000 psi	Air	UV
3-4 NPS	6 NPS	4.011 in ²	[M] 2.26 in	0.565 in	15-4000 psi	Steam	UV
3-4 NPS	6 NPS	4.83 in ²	[N] 2.48 in	0.62 in	15-4000 psi	Air	UV
3-4 NPS	6 NPS	4.83 in ²	[N] 2.48 in	0.62 in	15-4000 psi	Steam	UV
3 NPS	4, Dual 4 NPS	5.628 in ²	[3] 2.677 in	0.67 in	15-4000 psi	Air	UV
3 NPS	4, Dual 4 NPS	5.628 in ²	[3] 2.677 in	0.67 in	15-4000 psi	Steam	UV
4 NPS	6 NPS	7.116 in ²	[P] 3.01 in	0.753 in	15-4000 psi	Air	UV
4 NPS	6 NPS	7.116 in ²	[P] 3.01 in	0.753 in	15-4000 psi	Steam	UV
4 NPS	6, Dual 6 NPS	9.621 in ²	[4] 3.5 in	0.875 in	15-2000 psi	Air	UV
4 NPS	6, Dual 6 NPS	9.621 in ²	[4] 3.5 in	0.875 in	15-2000 psi	Steam	UV
6 NPS	8 NPS	12.3 in ²	[Q] 3.957 in	0.99 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.3 in ²	[Q] 3.957 in	0.99 in	15-2000 psi	Steam	UV
6 NPS	8, 10 NPS	17.8 in ²	[R] 4.76 in	1.19 in	15-2000 psi	Air	UV
6 NPS	8, 10 NPS	17.8 in ²	[R] 4.76 in	1.19 in	15-2000 psi	Steam	UV
6 NPS	Dual 8 NPS	21.53 in ²	[5] 5.236 in	1.309 in	15-2000 psi	Air	UV
6 NPS	Dual 8 NPS	21.53 in ²	[5] 5.236 in	1.309 in	15-2000 psi	Steam	UV
8 NPS	10 NPS	28.91 in ²	[T] 6.067 in	1.517 in	15-1500 psi	Air	UV
8 NPS	10 NPS	28.91 in²	[T] 6.067 in	1.517 in	15-1500 psi	Steam	UV
8 NPS	Dual 8 NPS	29.43 in ²	[6] 6.122 in	1.531 in	15-1500 psi	Air	UV
8 NPS	Dual 8 NPS	29.43 in ²	[6] 6.122 in	1.531 in	15-1500 psi	Steam	UV
8-10 NPS	Dual 10, 14 NPS	44.18 in ²	[V, 7] 7.5 in	1.875 in	15-1500 psi	Air	UV
8-10 NPS	Dual 10, 14 NPS	44.18 in ²	[V, 7] 7.5 in	1.875 in	15-1500 psi	Steam	UV
10-12 NPS	14, 16 NPS	63.62 in ²	[W] 9 in	2.25 in	15-500 psi	Air	UV
10-12 NPS	14, 16 NPS	63.62 in ²	[W] 9 in	2.25 in	15-500 psi	Steam	UV
12-14 NPS	16, 18 NPS	86.59 in ²	[Y] 10.5 in	2.625 in	15-500 psi	Air	UV
12-14 NPS	16, 18 NPS	86.59 in ²	[Y] 10.5 in	2.625 in	15-500 psi	Steam	UV
14-16 NPS	20 NPS	95.38 in ²	[Z] 11.02 in	2.753 in	15-500 psi	Air	UV
14-16 NPS	20 NPS	95.38 in ²	[Z] 11.02 in	2.753 in	15-500 psi	Steam	UV
14-16 NPS	20 NPS	113.1 in ²	[Z1] 12 in	3 in	15-500 psi	Air	UV
14-16 NPS	20 NPS	113.1 in²	[Z1] 12 in	3 in	15-500 psi	Steam	UV
16-18 NPS	24 NPS	143.1 in ²	[A] 13.5 in	3.375 in	15-500 psi	Air	UV
16-18 NPS	24 NPS	143.1 in ²	[A] 13.5 in	3.375 in	15-500 psi	Steam	UV
18-20 NPS	24 NPS	176.7 in ²	[B] 15 in	3.75 in	15-500 psi	Air	UV
18-20 NPS	24 NPS	176.7 in ²	[B] 15 in	3.75 in	15-500 psi	Steam	UV
20 NPS	24 NPS	227 in ²	[B2] 17 in	4.25 in	15-500 psi	Air	UV

20 NPS	24 NPS	227 in ²	[B2] 17 in	4.25 in	15-500 psi	Steam	UV			
Design Name	e: RPSL (Liqu	uids)		NBCert ‡	\$ 27065					
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date				
Manufacturer			UV		0	9/09/2024				
Design Type										
[Pilot Operated Pressure Relief Valve] RPSL (Liquids) Capacity Tests: Sec. UV at unknown lab on January 15, 1986 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.743 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Designed by: Fukui Seisakusho Company, Limited {FKI}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-2 NPS	2 NPS	0.124 in ²	[D] 0.397 in	0.1 in	15-10000 psi	Water	UV			
1-2 NPS	2 NPS	0.219 in ²	[E] 0.528 in	0.134 in	15-10000 psi	Water	UV			
1-2 NPS	2 NPS	0.343 in ²	[F] 0.661 in	0.166 in	15-10000 psi	Water	UV			
1.25-3 NPS	3, 4 NPS	0.562 in ²	[G] 0.846 in	0.212 in	15-10000 psi	Water	UV			
1.5-2 NPS	3, 4 NPS	0.874 in²	[H] 1.055 in	0.264 in	15-10000 psi	Water	UV			
1.5-3 NPS	3, 4 NPS	1.35 in ²	[1] 1.311 in	0.328 in	15-6000 psi	Water	UV			
2-3 NPS	3, 4 NPS	1.431 in ²	[J] 1.35 in	0.338 in	15-10000 psi	Water	UV			
2-3 NPS	3, 4 NPS	2.046 in ²	[K] 1.614 in	0.404 in	15-10000 psi	Water	UV			
2 NPS	3, Dual 3 NPS	2.53 in ²	[2] 1.795 in	0.449 in	15-4000 psi	Water	UV			
3-4 NPS	4, 6 NPS	3.179 in ²	[L] 2.012 in	0.503 in	15-5000 psi	Water	UV			
3-4 NPS	6 NPS	4.011 in ²	[M] 2.26 in	0.565 in	15-4000 psi	Water	UV			
3-4 NPS	6 NPS	4.83 in ²	[N] 2.48 in	0.62 in	15-4000 psi	Water	UV			
3 NPS	4, Dual 4 NPS	5.628 in ²	[3] 2.677 in	0.67 in	15-4000 psi	Water	UV			
4 NPS	6 NPS	7.116 in ²	[P] 3.01 in	0.753 in	15-4000 psi	Water	UV			
4 NPS	6, Dual 6 NPS	9.621 in ²	[4] 3.5 in	0.875 in	15-2000 psi	Water	UV			
6 NPS	8 NPS	12.3 in ²	[Q] 3.957 in	0.99 in	15-2000 psi	Water	UV			
6 NPS	8, 10 NPS	17.8 in ²	[R] 4.76 in	1.19 in	15-2000 psi	Water	UV			
6 NPS	Dual 8 NPS	21.53 in ²	[5] 5.236 in	1.309 in	15-2000 psi	Water	UV			
8 NPS	10 NPS	28.91 in²	[T] 6.067 in	1.517 in	15-1500 psi	Water	UV			
8 NPS	Dual 8 NPS	29.43 in ²	[6] 6.122 in	1.531 in	15-1500 psi	Water	UV			
8-10 NPS	Dual 10, 14 NPS	44.18 in ²	[V, 7] 7.5 in	1.875 in	15-1500 psi	Water	UV			
10-12 NPS	14, 16 NPS	63.62 in ²	[W] 9 in	2.25 in	15-500 psi	Water	UV			
12-14 NPS	16, 18 NPS	86.59 in ²	[Y] 10.5 in	2.625 in	15-500 psi	Water	UV			
14-16 NPS	20 NPS	95.38 in²	[Z] 11.02 in	2.753 in	15-500 psi	Water	UV			
14-16 NPS	20 NPS	113.1 in ²	[Z1] 12 in	3 in	15-500 psi	Water	UV			
16-18 NPS	24 NPS	143.1 in ²	[A] 13.5 in	3.375 in	15-500 psi	Water	UV			
18-20 NPS	24 NPS	176.7 in ²	[B] 15 in	3.75 in	15-500 psi	Water	UV			
20 NPS	24 NPS	227 in ²	[B2] 17 in	4.25 in	15-500 psi	Water	UV			

Design Name	e: RTE			NBCert	# 2714	14		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer			UV			02/22/2027		
Design Type								
[Safety Relief Va Capacity Tests: 5 Method of Estab Certified Value: 2 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu	Ive] RTE Sec. UV at National E Jishing Relieving Cap 2.200 SCFM/PSIA; (a r/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full Ikui Seisakusho Com	Board Testing L bacity: Flow Ca alternate mediu ad: Air, Gas, St Lift pany, Limited {	ab on October 27, 200 pacity, Slope m): 6.180 PPH/PSIA eam FKI}	04				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75-1 NPS	1, 2 NPS	0.137 in ²	0.417 in	0.106 in	50-15000 psi	Air	UV	
0.75-1 NPS	1, 2 NPS	0.137 in ²	0.417 in	0.106 in	50-2900 psi	Steam	UV	
Design Name	e: RTE Liquio	b		NBCert	# 2713	33		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer			UV			02/22/2027		
Design Type								
[Relief Valve] R Capacity Tests: S Method of Estab Certified Value: S Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Fu	TE Liquid Sec. UV at National E Iishing Relieving Cap 3.980 GPM/SQ.RT. F ater/Liquid; Certified: finition: Heavy Flow acteristics: Fixed guration: Nozzle/Full ikui Seisakusho Com	Board Testing L bacity: Flow Ca SID Liquid Lift pany, Limited {	ab on October 26, 200 pacity, Flow Factor FKI})4				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75-1 NPS	1, 2 NPS	0.137 in ²	0.417 in	0.106 in	50-15000 psi	Water	UV	
Design Name	e: SL Series			NBCert	# 2707	76		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer			UV, V			06/05/2024		
Design Type								
[Safety Valve] SL Series Capacity Tests: Sec. UV, V at National Board Testing Lab (Picaway) on November 16, 1979 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Etikui Sejakusho Company Limited /EKI)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75-1 NPS	1-2 NPS	0.122 in ²	[D] 0.394 in	0.098 in	15-5500 psi	Steam	UV, V	

0.75-1 NPS	1-2 NPS	0.216 in ²	[E] 0.524 in	0.134 in	15-5500 psi	Steam	UV, V
1-2 NPS	2-4 NPS	0.336 in ²	[F] 0.654 in	0.165 in	15-5500 psi	Steam	UV, V
1-2 NPS	2-4 NPS	0.336 in ²	[F1] 0.654 in	0.0906 in	15-5500 psi	Steam	UV, V
1-2 NPS	2-4 NPS	0.439 in ²	[19] 0.748 in	0.189 in	15-5500 psi	Steam	UV, V
1.25-2 NPS	2.5-4 NPS	0.548 in ²	[G1] 0.835 in	0.146 in	15-5500 psi	Steam	UV, V
1.25-2 NPS	2.5-4 NPS	0.548 in ²	[G] 0.835 in	0.209 in	15-5500 psi	Steam	UV, V
1.25-2 NPS	2.5-4 NPS	0.701 in ²	[24] 0.945 in	0.236 in	15-5500 psi	Steam	UV, V
1.5-2 NPS	3-4 NPS	0.861 in ²	[H] 1.047 in	0.264 in	15-5500 psi	Steam	UV, V
1.5-2 NPS	3-4 NPS	1.095 in ²	[30] 1.181 in	0.295 in	15-5500 psi	Steam	UV, V
2-3 NPS	3-6 NPS	1.408 in ²	[J] 1.339 in	0.335 in	15-5500 psi	Steam	UV, V
2-3 NPS	3-6 NPS	1.758 in ²	[38] 1.496 in	0.374 in	15-5500 psi	Steam	UV, V
2-3 NPS	3-6 NPS	1.804 in ²	[J3] 1.515 in	0.38 in	15-5500 psi	Steam	UV, V
2.5-4 NPS	4-8 NPS	2.006 in ²	[K] 1.598 in	0.402 in	15-5500 psi	Steam	UV, V
2.5-4 NPS	4-8 NPS	2.676 in ²	[K2] 1.846 in	0.465 in	15-5500 psi	Steam	UV, V
2.5-4 NPS	4-8 NPS	2.863 in ²	[K3] 1.909 in	0.477 in	15-5500 psi	Steam	UV, V
2.5-4 NPS	4-8 NPS	2.922 in ²	[49] 1.929 in	0.484 in	15-5500 psi	Steam	UV, V
2.5-4 NPS	4-8 NPS	3.117 in ²	[L] 1.992 in	0.5 in	15-5500 psi	Steam	UV, V
3-4 NPS	4-6 NPS	3.819 in ²	[56] 2.205 in	0.551 in	15-5500 psi	Steam	UV, V
3-4 NPS	4-6 NPS	3.927 in ²	[M] 2.236 in	0.559 in	15-5500 psi	Steam	UV, V
3-4 NPS	6-8 NPS	4.008 in ²	[M2] 2.259 in	0.565 in	15-5500 psi	Steam	UV, V
3-4 NPS	6-8 NPS	4.741 in ²	[N] 2.457 in	0.614 in	15-3500 psi	Steam	UV, V
3.5-4 NPS	6-8 NPS	5.143 in ²	[65] 2.559 in	0.642 in	15-3500 psi	Steam	UV, V
3.5-4 NPS	6-8 NPS	5.301 in ²	[N2] 2.598 in	0.65 in	15-3500 psi	Steam	UV, V
4-6 NPS	6-8 NPS	6.487 in ²	[73] 2.874 in	0.72 in	15-3500 psi	Steam	UV, V
4-6 NPS	6-8 NPS	6.793 in ²	[74.7] 2.941 in	0.736 in	15-3500 psi	Steam	UV, V
4-6 NPS	6-8 NPS	6.975 in ²	[P] 2.98 in	0.748 in	15-3500 psi	Steam	UV, V
4-6 NPS	6-8 NPS	7.388 in ²	[77.9] 3.067 in	0.768 in	15-3500 psi	Steam	UV, V
4.5-6 NPS	8-10 NPS	8.184 in ²	[82] 3.228 in	0.807 in	15-3500 psi	Steam	UV, V
4.5-6 NPS	8-10 NPS	8.465 in ²	[Q0] 3.283 in	0.823 in	15-3500 psi	Steam	UV, V
5-6 NPS	8-10 NPS	9.43 in ²	[88] 3.465 in	0.866 in	15-2000 psi	Steam	UV, V
5-6 NPS	8-10 NPS	9.948 in ²	[Q1] 3.559 in	0.89 in	15-1500 psi	Steam	UV, V
5.5-6 NPS	8-10 NPS	12.07 in ²	[Q] 3.921 in	0.98 in	15-1500 psi	Steam	UV, V
6 NPS	8-10 NPS	13.422 in ²	[105] 4.134 in	1.035 in	15-1500 psi	Steam	UV, V
6 NPS	8-10 NPS	13.914 in²	[106.9] 4.209 in	1.055 in	15-1500 psi	Steam	UV, V
6 NPS	8-10 NPS	16.1 in²	[115] 4.528 in	1.134 in	15-1500 psi	Steam	UV, V
6 NPS	8-10 NPS	17.48 in ²	[R] 4.717 in	1.181 in	15-1500 psi	Steam	UV, V
6 NPS	10 NPS	19.67 in ²	[RR] 5.004 in	1.251 in	15-1500 psi	Steam	UV, V
8 NPS	10-12 NPS	28.43 in ²	[T] 6.016 in	1.504 in	15-800 psi	Steam	UV, V
8 NPS	10-12 NPS	28.5 in ²	[153] 6.024 in	1.507 in	15-800 psi	Steam	UV, V
10 NPS	14 NPS	52.82 in ²	[V] 8.201 in	2.051 in	15-300 psi	Steam	UV, V
12 NPS	16 NPS	76.03 in ²	[W] 9.839 in	2.461 in	15-300 psi	Steam	UV, V

Design Nam	e: SL-xxxx P	A		NBCert	# 27199		
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	9
Manufacturer			V		09	9/30/2027	
Design Type							
[Power Actuated Capacity Tests: Method of Estal Certified Value: Media - Test: S Set Pressure D Blowdown Char Flow Area Conf Designed by: Fr	d Relief Valve] SL-xx Sec. V at National Bo blishing Relieving Ca 0.878 Unitless team; Certified: Stea efinition: Power Actua acteristics: Adjustabl iguration: Nozzle/Full ukui Seisakusho Con	exx PA oard Testing La pacity: Flow Ca m ated e Lift npany, Limited	ab on September 24, 2 apacity, K {FKI}	015			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS	1-2 NPS	0.122 in ²	[D] 0.394 in	0.098 in	15-5500 psi	Steam	V
0.75-1 NPS	1-2 NPS	0.216 in ²	[E] 0.524 in	0.134 in	15-5500 psi	Steam	V
1-2 NPS	2-4 NPS	0.336 in ²	[F1] 0.654 in	0.096 in	15-5500 psi	Steam	V
1-2 NPS	2-4 NPS	0.336 in ²	[F] 0.654 in	0.165 in	15-5500 psi	Steam	V
1-2 NPS	2-4 NPS	0.439 in ²	[19] 0.748 in	0.189 in	15-5500 psi	Steam	V
1.25-2 NPS	2.5-4 NPS	0.548 in ²	[G] 0.835 in	0.209 in	15-5500 psi	Steam	V
1.25-2 NPS	2.5-4 NPS	0.548 in ²	[G1] 0.835 in	0.146 in	15-5500 psi	Steam	V
1.25-2 NPS	2.5-4 NPS	0.701 in ²	[24] 0.945 in	0.236 in	15-5500 psi	Steam	V
1.5-2 NPS	3-4 NPS	0.861 in ²	[H] 1.047 in	0.264 in	15-5500 psi	Steam	V
1.5-2 NPS	3-4 NPS	1.095 in ²	[30] 1.181 in	0.295 in	15-5500 psi	Steam	V
2-3 NPS	3-6 NPS	1.408 in ²	[J] 1.339 in	0.335 in	15-5500 psi	Steam	V
2-3 NPS	3-6 NPS	1.758 in ²	[38] 1.496 in	0.374 in	15-5500 psi	Steam	V
2-3 NPS	3-6 NPS	1.804 in ²	[J3] 1.515 in	0.38 in	15-5500 psi	Steam	V
2.5-4 NPS	4-8 NPS	2.006 in ²	[K] 1.598 in	0.402 in	15-5500 psi	Steam	V
2.5-4 NPS	4-8 NPS	2.676 in ²	[K2] 1.846 in	0.465 in	15-5500 psi	Steam	V
2.5-4 NPS	4-8 NPS	2.863 in ²	[K3] 1.909 in	0.477 in	15-5500 psi	Steam	V
2.5-4 NPS	4-8 NPS	2.922 in ²	[49] 1.929 in	0.484 in	15-5500 psi	Steam	V
2.5-4 NPS	4-8 NPS	3.117 in ²	[L] 1.992 in	0.5 in	15-5500 psi	Steam	V
3-4 NPS	4-6 NPS	3.819 in ²	[56] 2.205 in	0.551 in	15-5500 psi	Steam	V
3-4 NPS	4-6 NPS	3.927 in ²	[M] 2.236 in	0.559 in	15-5500 psi	Steam	V
3-4 NPS	6-8 NPS	4.008 in ²	[M2] 2.259 in	0.565 in	15-5500 psi	Steam	V
3.5-4 NPS	6-8 NPS	4.741 in ²	[N] 2.457 in	0.614 in	15-3000 psi	Steam	V
3.5-4 NPS	6-8 NPS	5.143 in ²	[65] 2.559 in	0.642 in	15-3000 psi	Steam	V
3.5-4 NPS	6-8 NPS	5.301 in ²	[N2] 2.598 in	0.65 in	15-3000 psi	Steam	V

0.72 in

0.736 in

0.748 in

0.768 in

0.807 in

15-3000 psi

15-3000 psi

15-3000 psi

15-3000 psi

15-3000 psi

Steam

Steam

Steam

Steam

Steam

V V

V

V

V

4-6 NPS

4-6 NPS

4-6 NPS

4-6 NPS

4.5-6 NPS

6-8 NPS

6-8 NPS

6-8 NPS

6-8 NPS

8-10 NPS

6.487 in²

6.793 in²

6.975 in²

7.388 in²

8.184 in²

[73] 2.874 in

[74.7] 2.941 in

[77.9] 3.067 in

[82] 3.228 in

[P] 2.98 in

4.5-6 NPS	8-10 NPS	8.465 in ²	[Q0] 3.283 in	0.823 in	15-3000 psi	Steam	V
5-6 NPS	8-10 NPS	9.43 in ²	[88] 3.465 in	0.866 in	15-2000 psi	Steam	V
5-6 NPS	8-10 NPS	9.948 in ²	[Q1] 3.559 in	0.89 in	15-1500 psi	Steam	V
5.5-6 NPS	8-10 NPS	12.07 in ²	[Q] 3.921 in	0.98 in	15-1500 psi	Steam	V
6 NPS	10 NPS	13.422 in ²	[105] 4.134 in	1.035 in	15-1500 psi	Steam	V
6 NPS	10 NPS	13.914 in ²	[106.9] 4.209 in	1.055 in	15-1500 psi	Steam	V
6 NPS	10 NPS	16.1 in ²	[115] 4.528 in	1.134 in	15-1500 psi	Steam	V
6 NPS	10 NPS	17.48 in ²	[R] 4.717 in	1.181 in	15-1500 psi	Steam	V
6 NPS	10 NPS	19.67 in²	[RR] 5.004 in	1.251 in	15-1500 psi	Steam	V
8 NPS	10, 12 NPS	28.43 in ²	[T] 6.016 in	1.504 in	15-800 psi	Steam	V
8 NPS	10, 12 NPS	28.5 in ²	[153] 6.024 in	1.507 in	15-800 psi	Steam	V
10 NPS	14 NPS	52.82 in ²	[V] 8.201 in	2.051 in	15-300 psi	Steam	V
12 NPS	16 NPS	76.03 in ²	[W] 9.839 in	2.461 in	15-300 psi	Steam	V

GRISS S.A. (SPG)

BP159, Armentieres, 59428France

Design Name: 8100				NBCert #	NBCert # 49047			
Manufacturer/A	ssembler		Designato	ors	E	Expiration Date		
Manufacturer			UV		0	6/23/2027		
Design Type								
[Safety Valve] 8100 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on April 5, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.867 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: GRISS S.A. {SPG}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
4 NPS	6 NPS	4.6951 in²	[N] 0.2445 in	0.733 in	15-1000 psi	Air	UV	
4 NPS	6 NPS	4.6951 in ²	[N] 0.2445 in	0.733 in	15-1000 psi	Steam	UV	
1-1.5 NPS	2-3 NPS	0.1219 in ²	[D] 0.394 in	0.118 in	15-2900 psi	Steam	UV	
1-1.5 NPS	2-3 NPS	0.1219 in ²	[D] 0.394 in	0.118 in	15-6000 psi	Air	UV	
1-1.5 NPS	2 - 3 NPS	0.2157 in ²	[E] 0.524 in	0.145 in	15-2900 psi	Steam	UV	
1-1.5 NPS	2 - 3 NPS	0.2157 in ²	[E] 0.524 in	0.145 in	15-6000 psi	Air	UV	
1.5 NPS	2 - 3 NPS	0.3318 in ²	[F] 0.65 in	0.195 in	15-2900 psi	Steam	UV	
1.5 NPS	2 - 3 NPS	0.3318 in ²	[F] 0.65 in	0.195 in	15-5000 psi	Air	UV	
1.5-2 NPS	2.5, 3 NPS	0.5476 in ²	[G] 0.835 in	0.25 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2.5, 3 NPS	0.5476 in ²	[G] 0.835 in	0.25 in	15-3500 psi	Air	UV	

1.5-2 NPS	3 NPS	0.8544 in ²	[H] 1.043 in	0.314 in	15-2500 psi	Air	UV
1.5-2 NPS	3 NPS	0.8544 in ²	[H] 1.043 in	0.314 in	15-2500 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.3998 in ²	[J] 1.335 in	0.441 in	15-2500 psi	Air	UV
2-3 NPS	3, 4 NPS	1.3998 in ²	[J] 1.335 in	0.441 in	15-2500 psi	Steam	UV
3 NPS	4, 6 NPS	1.9956 in ²	[K] 1.594 in	0.478 in	15-2000 psi	Air	UV
3 NPS	4, 6 NPS	1.9956 in ²	[K] 1.594 in	0.478 in	15-2000 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.0915 in ²	[L] 1.984 in	0.595 in	15-1500 psi	Air	UV
3-4 NPS	4, 6 NPS	3.0915 in ²	[L] 1.984 in	0.595 in	15-1500 psi	Steam	UV
4 NPS	6 NPS	3.9127 in ²	[M] 2.232 in	0.671 in	15-1100 psi	Air	UV
4 NPS	6 NPS	3.9127 in ²	[M] 2.232 in	0.671 in	15-1100 psi	Steam	UV
4 NPS	6 NPS	6.9046 in ²	[P] 2.965 in	0.89 in	15-1000 psi	Air	UV
4 NPS	6 NPS	6.9046 in ²	[P] 2.965 in	0.89 in	15-1000 psi	Steam	UV
6 NPS	8 NPS	11.9337 in ²	[Q] 3.898 in	1.169 in	15-600 psi	Air	UV
6 NPS	8 NPS	11.9337 in ²	[Q] 3.898 in	1.169 in	15-600 psi	Steam	UV
6 NPS	8, 10 NPS	16.7784 in ²	[R] 4.622 in	1.386 in	15-300 psi	Air	UV
6 NPS	8, 10 NPS	16.7784 in ²	[R] 4.622 in	1.386 in	15-300 psi	Steam	UV
8 NPS	10 NPS	28.2743 in ²	[T] 6 in	1.799 in	15-300 psi	Air	UV
8 NPS	10 NPS	28.2743 in ²	[T] 6 in	1.799 in	15-300 psi	Steam	UV
10 NPS	14 NPS	45.105 in ²	[V] 7.578 in	1.895 in	15-180 psi	Air	UV
10 NPS	14 NPS	45.105 in ²	[V] 7.578 in	1.895 in	15-180 psi	Steam	UV
		67 2235 in ²	[W] 9 2516 in	2.313 in	15-160 psi	Air	UV
12 NPS	12 X 2 NPS	07.2255 11	[11] 0.2010	2101011	10 100 poi		-
12 NPS 12 NPS	12 x 2 NPS	67.2235 in ²	[W] 9.2516 in	2.313 in	15-160 psi	Steam	UV
12 NPS 12 NPS	12 x 2 NPS	67.2235 in ²	[W] 9.2516 in	2.313 in	15-160 psi	Steam	UV
12 NPS 12 NPS Design Name	12 x 2 NPS 12 x 2 NPS e: 81P (Liquio	67.2235 in ²	[W] 9.2516 in	2.313 in NBCert #	15-160 psi 4 01102	Steam	UV
12 NPS 12 NPS Design Name Manufacturer/A	12 x 2 NPS 12 x 2 NPS e: 81P (Liquio ssembler	67.2235 in ²	[W] 9.2516 in Designate	2.313 in NBCert #	15-160 psi 4 01102 Ex	Steam piration Date	UV
12 NPS 12 NPS Design Name Manufacturer/A Manufacturer	12 x 2 NPS 12 x 2 NPS e: 81P (Liquid sssembler	67.2235 in ²	[W] 9.2516 in Designato	2.313 in NBCert #	15-160 psi 4 01102 Ex 04	Steam piration Date /27/2027	UV
12 NPS 12 NPS Design Name Manufacturer/A Manufacturer Design Type	12 x 2 NPS 12 x 2 NPS e: 81P (Liquid sssembler	67.2235 in ²	[W] 9.2516 in Designato	2.313 in NBCert #	15-160 psi 4 01102 Ex 04/	Steam piration Date /27/2027	UV
12 NPS 12 NPS Design Name Manufacturer/A Manufacturer Design Type [Relief Valve] 81 Capacity Tests: S Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En	12 x 2 NPS 12 x 2 NPS 12 x 2 NPS ater (Liquids) Sec. NV, UV, V at Cro lishing Relieving Cap 0.720 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full nerson Automation S	67.2235 in ² 67.2235 in ² ds) bsby Valve, LL0 bacity: Flow Ca Liquid Lift olutions Final 0	[W] 9.2516 in Designate UV C on November 26, 198 pacity, K	2.313 in NBCert #	15-160 psi 4 01102 Ex 04/	Steam piration Date /27/2027	
12 NPS 12 NPS Design Name Manufacturer/A Manufacturer Design Type [Relief Valve] 81 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En	12 x 2 NPS 12 x 2 NPS 12 x 2 NPS a: 81P (Liquid ssembler 1P (Liquids) Sec. NV, UV, V at Cro lishing Relieving Cap 0.720 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size	67.2235 in ² 67.2235 in ² ds) bosby Valve, LLO bacity: Flow Ca Liquid Lift olutions Final O Flow Area	[W] 9.2516 in [W] 9.2516 in Designato UV C on November 26, 198 pacity, K Control US LP {AGC} Orifice [designator] dia.	2.313 in NBCert #	15-160 psi 4 01102 Ex 04/	Steam piration Date (27/2027 Media	UV
12 NPS 12 NPS Design Name Manufacturer/A Manufacturer Design Type [Relief Valve] 81 Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS	12 x 2 NPS 12 x 2 NPS 12 x 2 NPS ater 81P (Liquid ssembler 1P (Liquids) Sec. NV, UV, V at Cro lishing Relieving Cap 0.720 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size 1 - 2 NPS	67.2235 in ² 67.2235 in ² ds) osby Valve, LLO bacity: Flow Ca Liquid Lift olutions Final O Flow Area 0.049 in ²	[W] 9.2516 in [W] 9.2516 in Designato UV C on November 26, 198 pacity, K Control US LP {AGC} Orifice [designator] dia. [-4] 0.25 in	2.313 in NBCert # ors 35 Lift 0.09 in	15-160 psi 4 01102 Ex 04/ Set Pressure Range 50-5000 psi	Steam piration Date /27/2027 Media Water	UV U
12 NPS 12 NPS Design Name Manufacturer/A Manufacturer Design Type [Relief Valve] 81 Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS 0.5-2 NPS	12 x 2 NPS 12 x 2 NPS 12 x 2 NPS a: 81P (Liquid ssembler 1P (Liquids) Sec. NV, UV, V at Cro lishing Relieving Cap 0.720 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size 1 - 2 NPS 1 - 2 NPS	67.2235 in ² 67.2235 in ² ds) ds) bsby Valve, LL0 bacity: Flow Ca Liquid Lift olutions Final O Flow Area 0.049 in ² 0.049 in ²	[W] 9.2516 in [W] 9.2516 in Designato UV C on November 26, 198 pacity, K Control US LP {AGC} Orifice [designator] dia. [-4] 0.25 in [-4] 0.25 in	2.313 in NBCert # ors 35 Lift 0.09 in 0.09 in	15-160 psi 15-160 psi 4 01102 Ex 04/ 04/ 04/ 04/ 04/ 04/ 04/ 04/	Steam piration Date (27/2027 /	UV U
12 NPS 12 NPS 12 NPS Design Name Manufacturer/A Manufacturer Design Type [Relief Valve] 81 Capacity Tests: 8 Method of Estab Certified Value: 0 Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS 0.5-2 NPS 0.75-2 NPS	12 x 2 NPS 12 x 2 NPS 12 x 2 NPS a: 81P (Liquid ssembler 1P (Liquids) Sec. NV, UV, V at Cro lishing Relieving Cap 0.720 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size 1 - 2 NPS 1 - 2 NPS 1 - 2 NPS 1 - 2 NPS	67.2235 in ² 67.2235 in ² ds) ds) bsby Valve, LLO bacity: Flow Ca Liquid Lift olutions Final O Flow Area 0.049 in ² 0.049 in ² 0.11 in ²	[W] 9.2516 in [W] 9.2516 in UV C on November 26, 198 pacity, K Control US LP {AGC} Orifice [designator] dia. [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in	2.313 in NBCert 7 ors 35 Lift 0.09 in 0.09 in 0.13 in	15-160 psi 15-160 psi 4 01102 Ex 04/ 04/ 04/ 04/ 04/ 04/ 04/ 04/	Steam piration Date /27/2027 //2027 ///////////////////////	UV U
12 NPS 12 NPS 12 NPS Design Name Manufacturer/A Manufacturer Design Type [Relief Valve] 81 Capacity Tests: S Method of Estab Certified Value: 0 Method of Estab Capacity Tests: 9 Method of Estab Capacity	12 x 2 NPS 12 x 2 NPS 12 x 2 NPS a: 81P (Liquid ssembler 1P (Liquids) Sec. NV, UV, V at Cro lishing Relieving Cap 0.720 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size 1 - 2 NPS 1 - 2 NPS	67.2235 in ² 67.2235 in ² ds) bsby Valve, LLO bacity: Flow Ca Liquid Lift olutions Final O Flow Area 0.049 in ² 0.049 in ² 0.11 in ² 0.196 in ²	[W] 9.2516 in [W] 9.2516 in UV C on November 26, 198 pacity, K Control US LP {AGC} Orifice [designator] dia. [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-8] 0.5 in	2.313 in NBCert # ors 35 Lift 0.09 in 0.09 in 0.13 in 0.16 in	15-160 psi 15-160 psi 4 01102 Ex 04/ 04/ 04/ 04/ 04/ 04/ 04/ 04/	Steam piration Date 27/2027 Media Water Water Water Water Water Water	UV U
12 NPS 12 NPS 12 NPS Design Name Manufacturer/A Manufacturer Design Type [Relief Valve] 81 Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS 0.75-2 NPS 0.75-2 NPS 0.75-2 NPS	12 x 2 NPS 12 x 2 NPS 12 x 2 NPS ater (Liquids) Sec. NV, UV, V at Cro lishing Relieving Cap 0.720 Unitless ater/Liquid; Certified: finition: 93% of pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size 1 - 2 NPS 1 - 2 NPS	67.2235 in ² 67.2235 in ² ds) bsby Valve, LLO bacity: Flow Ca Liquid Lift olutions Final O Flow Area 0.049 in ² 0.049 in ² 0.196 in ² 0.196 in ²	[W] 9.2516 in [W] 9.2516 in UV C on November 26, 198 pacity, K Control US LP {AGC} Orifice [designator] dia. [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-8] 0.5 in [-8] 0.5 in	2.313 in NBCert # ors 35 Lift 0.09 in 0.09 in 0.13 in 0.16 in 0.16 in	15-160 psi 15-160 psi 4 01102 Ex 04/ Carbor of the second of the se	Steam piration Date /27/2027 Media Water Water Water Water Water Water Water Water	UV U
12 NPS 12 NPS 12 NPS Design Name Manufacturer/A Manufacturer Design Type [Relief Valve] 81 Capacity Tests: 8 Method of Estab Certified Value: 0 Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.5-2 NPS 0.5-2 NPS 0.75-2 NPS 0.75-2 NPS 0.75-2 NPS 1.5-2 NPS	12 x 2 NPS 12 x 2 NPS 12 x 2 NPS ater (Liquids) Sec. NV, UV, V at Cro lishing Relieving Cap 0.720 Unitless ater/Liquid; Certified: ofinition: 93% of pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size 1 - 2 NPS 1 - 2 NPS	67.2235 in² 67.2235 in² ds) ds) ds) bsby Valve, LLO bacity: Flow Ca Liquid Lift olutions Final O Flow Area 0.049 in² 0.049 in² 0.11 in² 0.196 in² 0.196 in² 0.503 in²	[W] 9.2516 in [W] 9.2516 in Designato UV C on November 26, 198 pacity, K Control US LP {AGC} Orifice [designator] dia. [-4] 0.25 in [-4] 0.25 in [-6] 0.375 in [-8] 0.5 in [-8] 0.5 in [-8] 0.5 in [-8] 0.5 in	2.313 in NBCert # ors 35 Lift 0.09 in 0.09 in 0.13 in 0.16 in 0.16 in 0.34 in	15-160 psi 15-160 psi 4 01102 Ex 04/ Control (1) 150-5000 psi 50-6000 psi 50-5000 psi	Steam piration Date (27/2027 (27/2027) (27/20) (27	UV U

Design Name: 8200	NBCert # 490	58
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	02/22/2025
Design Type		
[Relief Valve] 8200		

Capacity Tests: Sec. UV at National Board Testing Lab on May 5, 1992 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.719 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: GRISS S.A. {SPG}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1219 in ²	[D] 0.394 in	0.118 in	20-1500 psi	Water	UV
1-1.5 NPS	2 - 3 NPS	0.2157 in ²	[E] 0.524 in	0.145 in	20-1500 psi	Water	UV
1.5 NPS	2 - 3 NPS	0.3318 in ²	[F] 0.65 in	0.195 in	20-1500 psi	Water	UV
1.5-2 NPS	2.5, 3 NPS	0.5476 in ²	[G] 0.835 in	0.25 in	20-1500 psi	Water	UV
1.5-2 NPS	3 NPS	0.8544 in ²	[H] 1.043 in	0.314 in	20-1500 psi	Water	UV
2-3 NPS	3, 4 NPS	1.3998 in ²	[J] 1.335 in	0.441 in	20-1500 psi	Water	UV
3 NPS	4, 6 NPS	1.9956 in ²	[K] 1.594 in	0.478 in	20-1500 psi	Water	UV
3-4 NPS	4, 6 NPS	3.0915 in ²	[L] 1.984 in	0.595 in	20-1500 psi	Water	UV
4 NPS	6 NPS	3.9127 in ²	[M] 2.232 in	0.671 in	20-1000 psi	Water	UV
4 NPS	6 NPS	4.6951 in ²	[N] 2.445 in	0.733 in	20-1000 psi	Water	UV
4 NPS	6 NPS	6.9046 in ²	[P] 2.965 in	0.89 in	20-1000 psi	Water	UV
6 NPS	8 NPS	11.9337 in ²	[Q] 3.898 in	1.169 in	20-600 psi	Water	UV

Design Name: 900 Series (Liquid), 7700, SNC

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/11/2027

Design Type

[Relief Valve] 900 Series (Liquid), 7700, SNC Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 9, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.661 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	NV
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	UV, V

0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	NV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	UV, V
1-1.5 NPS	1.5 - 2 NPS	0.2951 in²	0.613 in	0.265 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	NV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV, V
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	NV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV, V

Design Name: 900 Series, 7700, SNC	NBCert # 154	
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/12/2027
Design Type		
[Safety Relief Valve] 900 Series, 7700, SNC Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on February Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless	/ 14, 1990	

Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-2900 psi	Steam	NV, UV
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Air	UV
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-2900 psi	Steam	NV, UV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Air	UV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-2900 psi	Steam	NV, UV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-2900 psi	Steam	NV, UV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Air	UV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-2900 psi	Steam	NV, UV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Air	UV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-2900 psi	Steam	NV, UV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Air	UV
Design Name	e: BP			NBCert #	¥ 15501		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			UV		04	/27/2027	

[Safety Relief Valve] BP Capacity Tests: Sec. UV at Crosby Valve, LLC on August 24, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.841 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS	1 NPS	0.0539 in ²	[#4] 0.262 in	0.06 in	50-3000 psi	Air	UV
0.75-1 NPS	1 NPS	0.0929 in ²	[#5] 0.344 in	0.085 in	50-3000 psi	Air	UV
0.75-1 NPS	1 NPS	0.114 in ²	[#5A] 0.381 in	0.098 in	50-3000 psi	Air	UV
0.75-1 NPS	1 NPS	0.1364 in ²	[#6] 0.417 in	0.112 in	50-3000 psi	Air	UV

Design Name:	BP (Liquids)	NBCert #	15534
Manufacturer/Assen	nbler	Designators	Expiration Date
Manufacturer			04/26/2027

Design Type

[Relief Valve] BP (Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on September 15, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.631 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS	1 NPS	0.0539 in ²	[#4] 0.262 in	0.06 in	50-3000 psi	Water	UV, V
0.75-1 NPS	1 NPS	0.0929 in ²	[#5] 0.344 in	0.085 in	50-3000 psi	Water	UV, V
0.75-1 NPS	1 NPS	0.114 in ²	[#5A] 0.381 in	0.098 in	50-3000 psi	Water	UV, V
0.75-1 NPS	1 NPS	0.1364 in ²	[#6] 0.417 in	0.112 in	50-3000 psi	Water	UV, V

JLT-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABLNBCert

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/27/2027

Design Type

[Safety Relief Valve] JLT-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABL Capacity Tests: Sec. UV at Crosby Valve, LLC on June 28, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.870 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Air	UV		
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Air	UV		
1-1.5 NPS	2 - 3 NPS	0.3473 in²	[F] 0.665 in	0.257 in	15-6170 psi	Air	UV		
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Air	UV		
1.5-2 NPS	3 NPS	0.8874 in²	[H] 1.063 in	0.41 in	15-3705 psi	Air	UV		
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Air	UV		
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Air	UV		
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Air	UV		
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Air	UV		
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Air	UV		
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Air	UV		
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Air	UV		
6 NPS	8, 10 NPS	18.065 in²	[R] 4.796 in	1.852 in	15-1480 psi	Air	UV		
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Air	UV		
JLT-JOS-RL/JLT-JBS-RL/JLT-JDS-RL Design Name: (Liquids) (Restricted lift version of NBCert # 01393 Certification 15095)									
Manufacturer/A	ssembler		Designato	ors	E	cpiration Date	•		
Manufacturer UV 02/13/2025									
Manulacturer			00		02	13/2023			
Design Type			00		02	./13/2023			
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En	alve] JLT-JOS-RL/JL Sec. NV, UV, V at unl lishing Relieving Cap 0.656 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L nerson Automation S	T-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream .ift olutions Final (JDS-RL (Liquids) (Rest Dctober 14, 2015 upacity, K Control US LP {AGC}	ricted lift version of	Certification 1509	5)			
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En	alve] JLT-JOS-RL/JL Sec. NV, UV, V at unl blishing Relieving Cap 0.656 Unitless 'ater/Liquid; Certified: efinition: First Steady guration: Restricted L nerson Automation S Outlet Size	T-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream .ift olutions Final C Flow Area	JDS-RL (Liquids) (Rest Detober 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia.	ricted lift version of	Certification 1509s Set Pressure Range	5) Media	Designator		
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS	alve] JLT-JOS-RL/JL Sec. NV, UV, V at unl lishing Relieving Cap 0.656 Unitless ater/Liquid; Certified: ater/Liquid; Certified: atter/Liquid; Certi	T-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream .ift olutions Final C Flow Area 0.1244 in ²	JDS-RL (Liquids) (Rest Detober 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in	ricted lift version of Lift 0.08 in	Certification 15095 Set Pressure Range 15-6170 psi	5) Media Water	Designator		
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS	alve] JLT-JOS-RL/JL Sec. NV, UV, V at unl blishing Relieving Cap 0.656 Unitless ater/Liquid; Certified: ofinition: First Steady acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	T-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream .ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ²	JDS-RL (Liquids) (Rest Detober 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in	tricted lift version of Lift 0.08 in 0.08 in	Certification 15095 Set Pressure Range 15-6170 psi 15-6170 psi	5) Media Water Water	Designator NV UV, V		
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS	alve] JLT-JOS-RL/JL Sec. NV, UV, V at unl olishing Relieving Cap 0.656 Unitless 'ater/Liquid; Certified: atter/Liquid; Certified: atteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	T-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream .ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ² 0.2214 in ²	JDS-RL (Liquids) (Rest Detober 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in [E] 0.531 in	Lift 0.08 in 0.082 in	Set Pressure Range 15-6170 psi 15-6170 psi 15-6170 psi	Media Water Water Water Water	Designator NV UV, V NV		
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS	alve] JLT-JOS-RL/JL Sec. NV, UV, V at unf Dishing Relieving Cap 0.656 Unitless 'ater/Liquid; Certified: efinition: First Steady guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	T-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ² 0.2214 in ² 0.2214 in ²	JDS-RL (Liquids) (Rest Deteober 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in [E] 0.531 in [E] 0.531 in	rricted lift version of Lift 0.08 in 0.08 in 0.082 in 0.082 in	Set Pressure Range 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi	Media Water Water Water Water Water Water	Designator NV UV, V NV		
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS	alve] JLT-JOS-RL/JL ⁻ Sec. NV, UV, V at unl lishing Relieving Cap 0.656 Unitless later/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	T-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream .ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ²	JDS-RL (Liquids) (Rest Detober 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in [E] 0.531 in [E] 0.531 in [F] 0.665 in	Lift 0.08 in 0.08 in 0.082 in 0.082 in 0.103 in	Set Pressure Range 15-6170 psi	Media Water Water Water Water Water Water Water Water	Designator NV UV, V UV, V UV, V		
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	alve] JLT-JOS-RL/JL Sec. NV, UV, V at uni- olishing Relieving Cap 0.656 Unitless 'ater/Liquid; Certified: 'ater/Liquid; Certified: guration: First Steady guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	F-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream .ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ²	DS-RL (Liquids) (Rest Database 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in	Lift 0.08 in 0.08 in 0.082 in 0.082 in 0.082 in 0.103 in	Set Pressure Range 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi	Media Water Water Water Water Water Water Water Water Water	Designator NV UV, V NV UV, V NV UV, V		
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS	alve] JLT-JOS-RL/JL Sec. NV, UV, V at un olishing Relieving Cap 0.656 Unitless 'ater/Liquid; Certified: ateristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	F-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ²	DS-RL (Liquids) (Rest Detober 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in [G] 0.85 in	Lift 0.08 in 0.082 in 0.082 in 0.103 in 0.103 in 0.131 in	Set Pressure Range 15-6170 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator NV UV, V NV UV, V NV UV, V NV		
Design Type[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: EnInlet Size0.75-1.5 NPS0.75-1.5 NPS1-1.5 NPS1-1.5 NPS1-1.5 NPS1-1.5 NPS1.5-2 NPS1.5-2 NPS	alve] JLT-JOS-RL/JL Sec. NV, UV, V at un ilishing Relieving Cap 0.656 Unitless 'ater/Liquid; Certified: efinition: First Steady guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	F-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ²	UDS-RL (Liquids) (Rest Detober 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in [D] 0.398 in [E] 0.531 in [E] 0.665 in [F] 0.665 in [F] 0.665 in [G] 0.85 in	Lift 0.08 in 0.082 in 0.082 in 0.103 in 0.103 in 0.131 in	Set Pressure Range 15-6170 psi 15-6170 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator NV UV, V NV UV, V NV UV, V NV UV, V		
Design Type[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: EnInlet Size0.75-1.5 NPS0.75-1.5 NPS1-1.5 NPS1-1.5 NPS1-1.5 NPS1-1.5 NPS1.5-2 NPS1.5-2 NPS1.5-2 NPS	Alve] JLT-JOS-RL/JL Sec. NV, UV, V at un dishing Relieving Cap 0.656 Unitless later/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	F-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ² 0.5674 in ² 0.6249 in ²	USV JDS-RL (Liquids) (Rest Detober 14, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in [D] 0.398 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in [G] 0.85 in 0.892 in	tricted lift version of Lift 0.08 in 0.08 in 0.082 in 0.082 in 0.103 in 0.103 in 0.131 in 0.131 in 0.137 in	Set Pressure Range 15-6170 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water Water Water	Designator NV UV, V UV, V UV, V UV, V UV, V UV, V NV UV, V NV UV, V NV		
Design Type[Safety Relief Value: Capacity Tests: 3Method of EstabCertified Value: CMedia - Test: WSet Pressure Designed Value: CBlowdown CharaFlow Area ConfigDesigned by: EnInlet Size0.75-1.5 NPS0.75-1.5 NPS1-1.5 NPS1-1.5 NPS1-1.5 NPS1.5-2 NPS1.5-2 NPS1.5-2 NPS1.5-2 NPS1.5-2 NPS1.5-2 NPS	alve] JLT-JOS-RL/JL Sec. NV, UV, V at uni- blishing Relieving Cap 0.656 Unitless 'ater/Liquid; Certified: 'ateristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3 NPS	F-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream .ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ² 0.6249 in ²	DS-RL (Liquids) (Rest Database 14, 2015 pacity, K Control US LP {AGC} Corifice [designator] dia. [D] 0.398 in [D] 0.398 in [D] 0.398 in [E] 0.531 in [E] 0.531 in [E] 0.665 in [G] 0.85 in [G] 0.85 in 0.892 in 0.892 in	Lift 0.08 in 0.08 in 0.082 in 0.082 in 0.103 in 0.103 in 0.131 in 0.137 in 0.137 in	Certification 15095 Set Pressure Range 15-6170 psi 15-500 psi 15-2500 psi	Media Water Water	Designator NV UV, V NV		
Design Type[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: EnInlet Size0.75-1.5 NPS0.75-1.5 NPS1-1.5 NPS1-1.5 NPS1-1.5 NPS1-1.5 NPS1.5.2 NPS1.5-2 NPS	alve] JLT-JOS-RL/JL Sec. NV, UV, V at un olishing Relieving Cap 0.656 Unitless 'ater/Liquid; Certified: efinition: First Steady guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3 NPS	F-JBS-RL/JLT- known lab on C bacity: Flow Ca Liquid Stream ift olutions Final C Flow Area 0.1244 in ² 0.1244 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ² 0.5674 in ² 0.6249 in ² 0.6249 in ² 0.8874 in ²	DS-RL (Liquids) (Rest Database of the second	Lift 0.08 in 0.082 in 0.082 in 0.103 in 0.103 in 0.131 in 0.137 in 0.164 in	Set Pressure Range 15-6170 psi 15-6170 psi 15-52500 psi 15-53705 psi	Media Media Water Water Water Water Water Water Water Water Water Water Water Water Water Water Water	Designator NV UV, V NV UV, V NV NV NV NV NV NV NV		

2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.21 in	15-3705 psi	Water	NV	
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.21 in	15-3705 psi	Water	UV, V	
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.251 in	15-3705 psi	Water	NV	
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.251 in	15-3705 psi	Water	UV, V	
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.313 in	15-3705 psi	Water	NV	
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.313 in	15-3705 psi	Water	UV, V	
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.351 in	15-2220 psi	Water	NV	
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.351 in	15-2220 psi	Water	UV, V	
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.386 in	15-1480 psi	Water	NV	
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.386 in	15-1480 psi	Water	UV, V	
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	0.468 in	15-1480 psi	Water	NV	
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	0.468 in	15-1480 psi	Water	UV, V	
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	0.493 in	15-1500 psi	Water	UV, V	
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	0.616 in	15-1480 psi	Water	UV, V	
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.741 in	15-1480 psi	Water	NV	
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.741 in	15-1480 psi	Water	UV, V	
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	0.944 in	15-740 psi	Water	NV	
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	0.944 in	15-740 psi	Water	UV, V	
Design Name: (Restricted Lift version of Certification NBCert # 01382 15512)								
Monufacturer/A	ocombler		Designate	10	Ev	nization Data		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Manufacturer/A Manufacturer	ssembler	_	Designato UV	rs	Ex 02	piration Date		
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: En	Alve] JLT-JOS-RL/JL Sec. UV at unknown dishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Restricted L nerson Automation S	F-JBS-RL/JLT- lab on October bacity: Flow Ca Gas ift olutions Final C	Designato UV JDS-RL (Restricted Lift 13, 2015 pacity, K Control US LP {AGC}	version of Certifica	Ex 02/ Ition 15512)	piration Date		
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: En	Assembler Alve] JLT-JOS-RL/JL Sec. UV at unknown Jishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size	F-JBS-RL/JLT- lab on October pacity: Flow Ca Gas .ift olutions Final O Flow Area	Designato UV JDS-RL (Restricted Lift 13, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia.	version of Certifica	Ex 02/ ation 15512) Set Pressure Range	piration Date 113/2025 Media	Designator	
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS	Alve] JLT-JOS-RL/JL Sec. UV at unknown dishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS	F-JBS-RL/JLT- lab on October bacity: Flow Ca Gas ift olutions Final O Flow Area 0.1244 in ²	Designato UV UDS-RL (Restricted Lift 13, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in	version of Certifica	Ex 02/ tion 15512) Set Pressure Range 15-6170 psi	piration Date (13/2025 Media Air	Designator	
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS	Alve] JLT-JOS-RL/JL Sec. UV at unknown dishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, O finition: Pop acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	F-JBS-RL/JLT- lab on October bacity: Flow Ca Gas ift olutions Final O Flow Area 0.1244 in ² 0.2214 in ²	Designato UV UDS-RL (Restricted Lift 13, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [E] 0.531 in	version of Certifica	Ex 02, 15-6170 psi 15-6170 psi	Media Air Air	Designator UV UV	
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 1-1.5 NPS	Alve] JLT-JOS-RL/JL Sec. UV at unknown lishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, C offinition: Pop acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	F-JBS-RL/JLT- lab on October bacity: Flow Ca Bas ift olutions Final O Flow Area 0.1244 in ² 0.2214 in ² 0.3473 in ²	Designato UV UDS-RL (Restricted Lift 13, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.665 in	version of Certifica Lift 0.08 in 0.082 in 0.103 in	Ex 02, 15-6170 psi 15-6170 psi	Media Air Air	Designator UV UV	
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 1-1.5 NPS 1.5-2 NPS	Alve] JLT-JOS-RL/JLT Sec. UV at unknown dishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	F-JBS-RL/JLT- lab on October bacity: Flow Ca Gas ift olutions Final C Flow Area 0.1244 in ² 0.2214 in ² 0.3473 in ² 0.5674 in ²	Designato UV UDS-RL (Restricted Lift 13, 2015 pacity, K Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.665 in [G] 0.85 in	version of Certifica Lift 0.08 in 0.082 in 0.103 in 0.131 in	Ex 02, 102, 105,012) Set Pressure 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi	piration Date (13/2025 (13/2025) (13/2025) (13/2025) (13/20) (Designator UV	
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS	Alve] JLT-JOS-RL/JL Sec. UV at unknown dishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, O finition: Pop acteristics: Fixed guration: Restricted L herson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS	F-JBS-RL/JLT-Clab on October bacity: Flow Ca Bas ift olutions Final C Flow Area 0.1244 in ² 0.2214 in ² 0.3473 in ² 0.5674 in ² 0.6949 in ²	Designato UV US-RL (Restricted Lift 13, 2015 pacity, K Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.665 in [G] 0.85 in 0.892 in	version of Certification Lift 0.08 in 0.082 in 0.103 in 0.131 in 0.137 in	Ex 02. 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi 15-6170 psi	piration Date 13/2025 Media Air Air Air Air Air	Designator UV	
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: En Inlet Size 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS	Alve] JLT-JOS-RL/JL Sec. UV at unknown dishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, O offinition: Pop acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS	F-JBS-RL/JLT- lab on October bacity: Flow Ca Sas ift olutions Final O Flow Area 0.1244 in ² 0.2214 in ² 0.3473 in ² 0.5674 in ² 0.6949 in ² 0.8874 in ²	Designato UV UDS-RL (Restricted Lift 13, 2015 pacity, K UDS-RL (Restricted Lift 13, 2015 Designator ID 0.398 in [D] 0.398 in [E] 0.531 in [F] 0.665 in [G] 0.85 in 0.892 in [H] 1.063 in	version of Certification Lift 0.08 in 0.082 in 0.103 in 0.131 in 0.137 in 0.164 in	Ex 02. 102. 105.012) 15.0170 psi 15.0170 psi 15.017	piration Date 13/2025 Media Air Air Air Air Air Air Air	Designator UV UV	
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: En 0.75-1.5 NPS 1.1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2.3 NPS	Alve] JLT-JOS-RL/JLT Sec. UV at unknown lishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, C offinition: Pop acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3, 4 NPS	F-JBS-RL/JLT- lab on October bacity: Flow Ca Sas ift olutions Final O Flow Area 0.1244 in ² 0.2214 in ² 0.3473 in ² 0.5674 in ² 0.6949 in ² 0.8874 in ² 1.453 in ²	Designato UV UDS-RL (Restricted Lift 13, 2015 pacity, K UDS-RL (Restricted Lift 13, 2015 Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.665 in [G] 0.85 in 0.892 in [H] 1.063 in [J] 1.36 in	version of Certification Lift 0.08 in 0.082 in 0.103 in 0.131 in 0.137 in 0.164 in 0.21 in	Ex 02. 02. 02. 03. 04. 04. 05. 05. 05. 05. 05. 05. 05. 05	piration Date 113/2025 Media Air Air Air Air Air Air Air Air Air	Designator UV	
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: En O.75-1.5 NPS 1.1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2.3 NPS	Alve] JLT-JOS-RL/JLT Sec. UV at unknown dishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, O finition: Pop acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS	F-JBS-RL/JLT lab on October pacity: Flow Ca Gas ift olutions Final C Flow Area 0.1244 in ² 0.2214 in ² 0.3473 in ² 0.5674 in ² 0.6949 in ² 0.8874 in ² 1.453 in ² 2.076 in ²	Designato UV USS-RL (Restricted Lift 13, 2015 pacity, K Control US LP {AGC} Orifice [D] 0.398 in [E] 0.531 in [E] 0.665 in [G] 0.85 in 0.892 in [H] 1.063 in [J] 1.36 in [K] 1.626 in	version of Certification Lift 0.08 in 0.082 in 0.103 in 0.131 in 0.137 in 0.164 in 0.21 in 0.251 in	Ex 02. 02. 03. 04. 04. 05. 05. 05. 05. 05. 05. 05. 05	piration Date (13/2025 Air Air Air Air Air Air Air Air	Designator UV UV	
Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: En Control Config Designed by: En Config Designed by: En Control Config Designed by: En Control Control Control Config Designed by: En Control C	Alve] JLT-JOS-RL/JL Sec. UV at unknown dishing Relieving Cap 0.870 Unitless r/Gas; Certified: Air, O finition: Pop acteristics: Fixed guration: Restricted L nerson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS	F-JBS-RL/JLT- lab on October bacity: Flow Ca Bas ift olutions Final C Flow Area 0.1244 in ² 0.2214 in ² 0.3473 in ² 0.5674 in ² 0.6949 in ² 0.8874 in ² 1.453 in ² 2.076 in ² 3.221 in ²	Designato UV US-RL (Restricted Lift 13, 2015 pacity, K Orifice [D] 0.398 in [E] 0.531 in [F] 0.665 in [G] 0.85 in 0.892 in [H] 1.063 in [J] 1.36 in [K] 1.626 in [L] 2.025 in	brs version of Certification Lift 0.08 in 0.082 in 0.103 in 0.131 in 0.137 in 0.164 in 0.251 in 0.313 in	Ex 02. 102. 105.012) 105.0170 psi 105.0170 psi 105.0	piration Date 13/2025 Media Air Air Air Air Air Air Air Air	Designator UV UV	

4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.386 in	15-1480 psi	Air	UV			
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	0.468 in	15-1480 psi	Air	UV			
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	0.493 in	15-1500 psi	Air	UV			
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	0.616 in	15-1480 psi	Air	UV			
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.741 in	15-1480 psi	Air	UV			
8 NPS	10, 12 NPS	29.359 in ²	[T] 6.114 in	0.944 in	15-740 psi	Air	UV			
Design Name: JOS-E-RL/JBS-E-RL/JDS-E-RL (Restricted NBCert # 01045 Lift version of cert 15208)										
Manufacturer/A	ssembler		Designato	ors		xpiration Date				
Manufacturer			UV		0	2/13/2025				
Design Type										
[Safety Relief Valve] JOS-E-RL/JBS-E-RL/JDS-E-RL (Restricted Lift version of cert 15208) Capacity Tests: Sec. UV at unknown lab on May 26, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.865 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.08 in	15-15000 psi	Air	UV			
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.08 in	15-2000 psi	Steam	UV			
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.08 in	15-2000 psi	Steam	UV			
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.08 in	15-8490 psi	Air	UV			
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.08 in	15-15000 psi	Air	UV			
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.08 in	15-2000 psi	Steam	UV			
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.08 in	15-15000 psi	Air	UV			
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.08 in	15-2000 psi	Steam	UV			
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.08 in	15-15000 psi	Air	UV			
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.08 in	15-2000 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.099 in	15-15000 psi	Air	UV			
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.099 in	15-2000 psi	Steam	UV			
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.127 in	15-10000 psi	Air	UV			
2-3 NPS	3, 4 NPS	1.453 in²	[J] 1.36 in	0.127 in	15-2000 psi	Steam	UV			
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.152 in	15-10000 psi	Air	UV			
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.152 in	15-2000 psi	Steam	UV			
4 NPS	6 NPS	2.714 in ²	1.859 in	0.18 in	15-1000 psi	Steam	UV			
4 NPS	6 NPS	2.714 in ²	1.859 in	0.18 in	15-3000 psi	Air	UV			
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.189 in	15-2000 psi	Steam	UV			
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.189 in	15-5000 psi	Air	UV			
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.213 in	15-2000 psi	Steam	UV			
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.213 in	15-5000 psi	Air	UV			
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.234 in	15-1480 psi	Steam	UV			

4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.234 in	15-3000 psi	Air	UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.255 in	15-2250 psi	Air	UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.255 in	15-2250 psi	Steam	UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.284 in	15-1480 psi	Steam	UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.284 in	15-3000 psi	Air	UV
6 NPS	8 NPS	11.045 in ²	3.75 in	0.373 in	15-1000 psi	Steam	UV
6 NPS	8 NPS	11.045 in ²	3.75 in	0.373 in	15-3750 psi	Air	UV
6 NPS	8 NPS	12.174 in ²	3.937 in	0.373 in	15-2250 psi	Air	UV
6 NPS	8 NPS	12.174 in ²	3.937 in	0.373 in	15-2250 psi	Steam	UV
6 NPS	10 NPS	12.236 in ²	3.947 in	0.449 in	15-2250 psi	Air	UV
6 NPS	10 NPS	12.236 in ²	3.947 in	0.449 in	15-2250 psi	Steam	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	0.373 in	15-1480 psi	Steam	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	0.373 in	15-3000 psi	Air	UV
6 NPS	8 NPS	15.288 in ²	4.412 in	0.424 in	15-2250 psi	Air	UV
6 NPS	8 NPS	15.288 in ²	4.412 in	0.424 in	15-2250 psi	Steam	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.449 in	15-1480 psi	Air	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.449 in	15-1480 psi	Steam	UV
8 NPS	10 NPS	18.254 in ²	4.821 in	0.572 in	15-2250 psi	Air	UV
8 NPS	10 NPS	18.254 in ²	4.821 in	0.572 in	15-2250 psi	Steam	UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	0.572 in	15-740 psi	Air	UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	0.572 in	15-740 psi	Steam	UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	0.592 in	15-740 psi	Air	UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	0.592 in	15-740 psi	Steam	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	0.731 in	15-325 psi	Air	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	0.731 in	15-325 psi	Steam	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	0.933 in	15-325 psi	Air	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	0.933 in	15-325 psi	Steam	UV

Hansen Technologies Corporation (HTL)

Nameplate Abbreviation: HANSEN

Commerce, GA 30529United States

Design Name:	H5600, H5601 & H5602		NBCert # 700	18
Manufacturer/Assen	nbler	Designators		Expiration Date
Manufacturer		UV		09/02/2026

[Safety Relief Valve] H5600, H5601 & H5602 Capacity Tests: Sec. UV at National Board Testing Lab on March 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 2.650 SCFM/PSIA Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Hansen Technologies Corporation {HTL}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	1 NPS	0.208 in ²	0.515 in	0.125 in	150-350 psi	Air	UV

Deelgin Haine	а. пролод			NBCert #	# 7003	50		
Manufacturer/As	ssembler		Designato	ors		Expiration Date	e	
Manufacturer			UV			09/24/2026		
Design Type								
[Safety Relief Valve] H5600A Capacity Tests: Sec. UV at National Board Testing Lab on March 23, 2000 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 2.320 SCFM/PSIA Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Hansen Technologies Corporation {HTL}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5 NPS	.75 NPS	0.172 in ²	0.515 in	0.125 in	150-400 psi	Air	UV	
Design Name	: H5600R, H	15602R		NBCert i	# 7004	.1		
Manufacturer/As	ssembler		Designato	ors		Expiration Date	e	
Manufacturer			UV			09/24/2026		
Design Type								
[Safety Relief Valve] H5600R, H5602R Capacity Tests: Sec. UV at National Board Testing Lab on January 17, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.781 SCFM/PSIA Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Unseren Techenologica (UTL)								
Certified Value: 0 Media - Test: Air, Set Pressure Def Blowdown Chara Flow Area Config Designed by: Ha	.781 SCFM/PSIA /Gas; Certified: Gas finition: Start-to-Leak cteristics: Fixed Juration: Curtain Area nsen Technologies C	a Corporation {HT	L}					
Certified Value: 0 Media - Test: Air. Set Pressure Def Blowdown Chara Flow Area Config Designed by: Har Inlet Size	(/81 SCFM/PSIA (Gas; Certified: Gas iinition: Start-to-Leak cteristics: Fixed juration: Curtain Area nsen Technologies C Outlet Size	a Corporation (HT Flow Area	L} Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
Certified Value: 0 Media - Test: Air, Set Pressure Def Blowdown Chara Flow Area Config Designed by: Ha Inlet Size 0.5-0.75 NPS	.781 SCFM/PSIA /Gas; Certified: Gas finition: Start-to-Leak cteristics: Fixed juration: Curtain Area nsen Technologies C Outlet Size .75 - 1 NPS	a Corporation {HT Flow Area 0.0498 in ²	L} Orifice [designator] dia. 0.515 in	Lift 0.125 in	Set Pressure Range 150-400 psi	Media Air	Designator UV	
Certified Value: 0 Media - Test: Air. Set Pressure Def Blowdown Chara Flow Area Config Designed by: Har Inlet Size 0.5-0.75 NPS Design Name	./81 SCFM/PSIA /Gas; Certified: Gas finition: Start-to-Leak cteristics: Fixed juration: Curtain Area nsen Technologies C Outlet Size .75 - 1 NPS :: H5604	a Corporation {HT Flow Area 0.0498 in ²	L} Orifice [designator] dia. 0.515 in	Lift 0.125 in NBCert #	Set Pressure Range 150-400 psi # 7002	Media Air	Designator UV	

UV

Manufacturer

09/04/2026

[Safety Relief Valve] H5604 Capacity Tests: Sec. UV at National Board Testing Lab on August 25, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.330 SCFM/PSIA Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed

Flow Area Configuration: Curtain Area Designed by: Hansen Technologies Corporation {HTL}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25 NPS		0.441 in ²	0.75 in	0.125 in	150-400 psi	Air	UV

Design Name	e: H5613			NBCert	# 7000		
Manufacturer/A	ssembler		Designate	ors	1	Expiration Date)
Manufacturer			UV			09/04/2026	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 3 Media - Test: Air Set Pressure Der Blowdown Chara Flow Area Config Designed by: Ha	lve] H5613 Sec. UV at National E ishing Relieving Cap 3.920 SCFM/PSIA /Gas; Certified: Gas finition: Start-to-Leak Incteristics: Fixed Juration: Curtain Area nsen Technologies C	Board Testing L bacity: Flow Ca c a Corporation {HT	ab on July 7, 1995 pacity, Slope 'L}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.25 NPS	0.312 in ²	0.75 in	0.125 in	100-400 psi	Air	UV
Design Name	e: H5632R			NBCert	# 7005	2	
Manufacturer/A	ssembler		Designate	ors	1	Expiration Date	9
Manufacturer			UV			09/24/2026	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Air Set Pressure Der Blowdown Chara Flow Area Config Designed by: Ha	lve] H5632R Sec. UV at National E ishing Relieving Cap .630 SCFM/PSIA /Gas; Certified: Gas finition: Start-to-Leak locteristics: Fixed juration: Curtain Area nsen Technologies C	Board Testing L bacity: Flow Ca c a Corporation {HT	ab on April 22, 2003 pacity, Slope 'L}				

Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia. L	Lift	Set Pressur Range	Ð	Media	Designator
0.75 NPS	1 NPS	0.102 in ²	0.515 in	C).125 in	150-400 psi		Air	UV
Design Name	e: H5633R				NBCert #	ŧ 700)63		
Manufacturer/A	ssembler			Designators	5		Exp	piration Date	
Manufacturer				UV			09/2	24/2026	

[Safety Relief Valve] H5633R Capacity Tests: Sec. UV at National Board Testing Lab on January 17, 2003 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 2.100 SCFM/PSIA Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed

Flow Area Configuration: Curtain Area Designed by: Hansen Technologies Corporation {HTL}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.25 NPS	0.138 in ²	0.75 in	0.125 in	150-400 psi	Air	UV
Design Name	e: H5634R			NBCert ;	# 70074		

Manufacturer/A	ssembler		Designate	Designators			Expiration Date			
Manufacturer			UV		09	09/04/2026				
Design Type	Design Type									
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: Ha	Ive] H5634R Sec. UV at National E ishing Relieving Cap .500 SCFM/PSIA /Gas; Certified: Gas finition: Start-to-Leak cteristics: Fixed juration: Curtain Area nsen Technologies C	Board Testing La bacity: Flow Cap c c a Corporation {HT	ab on April 29, 2003 pacity, Slope L}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1.25 NPS	1.5 NPS	0.162 in ²	0.75 in	0.125 in	150-400 psi	Air	UV			

Henry Technologies Ltd (HNL)

Glasgow, Scotland, G52 4XZUnited Kingdom

Design Name: 5230A-S, 5231A-S, 5231B-S		NBCert # C	1911	
Manufacturer/Assembler	Designators		Expiration Date	
Manufacturer	UV		05/08/2025	
Design Type				
[Safety Valve] 5230A-S, 5231A-S, 5231B-S Capacity Tests: Sec. UV at National Board Testing Lab on Octo Method of Establishing Relieving Capacity: Flow Capacity, Slop Certified Value: 0.626 SCFM/PSIA Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Bubble Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Henry Technologies Ltd {HNL}	ober 1, 2018 be			

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
	.50625 NPS	0.0491 in²	0.25 in	0.157 in	203-449.6 psi	Air	UV
Design Name	5230AX, 5 5234AX, 5	231AX, 523 235AX	31BX, 5233AX,	NBCert /	# 29180		
Manufacturer/A	ssembler		Designato	ors	E	piration Date	
Manufacturer			UV		10	/03/2024	
Design Type							
[Relief Valve] 52 Capacity Tests: 5 Method of Establ Certified Value: 0 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: He	30AX, 5231AX, 523 Sec. UV at National E ishing Relieving Cap 0.847 SCFM/PSIA /Gas; Certified: Gas finition: Bubble icteristics: Fixed juration: Nozzle/Full nry Technologies Inc	1BX, 5233AX, 5 Board Testing L bacity: Flow Ca Lift :. {ACR}	5234AX, 5235AX ab on December 1, 20 pacity, Slope	14			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.25-0.5 NPS		0.06 in ²		0.157 in²	150-675 psi	Air	UV
Design Name	e: 5232A-S, (5240-S, 524	42-S, 5340-S, 53	42-S NBCert <i>‡</i>	# 01922		
Manufacturer/A	ssembler		Designate	ors	E	piration Date	
Manufacturer			UV		05	6/08/2025	
Design Type							
[Safety Valve] 52 Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: He	232A-S, 5240-S, 524 Sec. UV at National E ishing Relieving Cap .375 SCFM/PSIA /Gas; Certified: Gas finition: Bubble icteristics: Fixed juration: Nozzle/Full nry Technologies Ltd	2-S, 5340-S, 5 3oard Testing L bacity: Flow Ca Lift I {HNL}	342-S ab on October 2, 2018 pacity, Slope	3			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
	.75 NPS	0.1104 in²	0.375 in	0.197 in	149.4-449.6 psi	Air	UV
Design Name	e: 5244S, 524	44A-S, 534	4S, 5344A-S, 52	44P NBCert <i>‡</i>	# 01696		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			UV		10)/24/2025	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: He	Ive] 5244S, 5244A-S Sec. UV at National E ishing Relieving Cap 2.530 SCFM/PSIA /Gas; Certified: Gas finition: Bubble icteristics: Fixed juration: Nozzle/Full nry Technologies Ltd	S, 5344S, 5344 Board Testing L bacity: Flow Ca Lift I {HNL}	A-S, 5244P ab on May 9, 2019 pacity, Slope				

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS	1 NPS	0.196 in ²	0.5 in	0.197 in	150-400 psi	Air	UV
Design Name	e: 5245-S, 52	246-S, 5345	5-S, 5346-S, B524	46 NBCert <i>‡</i>	¥ 01933		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			UV		10.	/24/2025	
Design Type							
[Safety Valve] 52 Capacity Tests: 5 Method of Establ Certified Value: 5 Media - Test: Air Set Pressure Dei Blowdown Chara Flow Area Config Designed by: He	245-S, 5246-S, 5345 Sec. UV at National E ishing Relieving Cap 5.456 SCFM/PSIA /Gas; Certified: Gas finition: Bubble icteristics: Fixed juration: Nozzle/Full nry Technologies Ltd	-S, 5346-S, B5 Board Testing L bacity: Flow Ca Lift {HNL}	246 ab on October 3, 2018 pacity, Slope				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.25 NPS	1.250 NPS	0.3883 in²	0.703 in	0.197 in	149.4-449.6 psi	Air	UV
Design Name	e: 5600			NBCert #	4 29146		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			UV		05	/08/2025	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: He	Ive] 5600 Sec. UV at National E ishing Relieving Cap 2.290 SCFM/PSIA /Gas; Certified: Gas finition: Bubble icteristics: Fixed juration: Nozzle/Full nry Technologies Ltd	Board Testing L bacity: Flow Ca Lift {HNL}	ab on June 12, 1992 pacity, Slope				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5 NPS	.75 NPS	0.196 in ²	0.5 in		150-450 psi	Air	UV
Design Name	e: 5601 & 560	02		NBCert #	# 29113		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Manufacturer			UV		05	/08/2025	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: He	Ive] 5601 & 5602 Sec. UV at Phillips Pe ishing Relieving Cap .650 SCFM/PSIA /Gas; Certified: Gas finition: Start-to-Leak .cteristics: Fixed juration: Nozzle/Full nry Technologies Ltd	etroleum on Ap pacity: Flow Ca Lift {HNL}	ril 12, 1965 pacity, Slope				

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia	Lift		Set Pressure Range	Media	Designator
0.5-0.75 NPS	1 NPS	0.196 in ²	0.5 in	0.12	5 in	150-450 psi	Air	UV
Design Name	: 5603				NBCert #	ŧ 2912		
Manufacturer/As	ssembler		Desig	nators			Expiration Date	
Manufacturer			UV				10/29/2024	
Design Type								
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Air Set Pressure Def Blowdown Chara Flow Area Config Designed by: Her	ve] 5603 sec. UV at National B ishing Relieving Cap .773 SCFM/PSIA /Gas; Certified: Gas inition: Start-to-Leak cteristics: Fixed uration: Nozzle/Full nry Technologies Ltd	oard Testing L acity: Flow Ca Lift {HNL}	ab (Picaway) on J bacity, Slope	uly 20, 198	39			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia	ı. Lift		Set Pressure Range	Media	Designator
1 NPS	1.25 NPS	0.196 in ²	0.5 in			150-450 psi	Air	UV
Design Name	· 5604 5604	1-YM 5604	-YP		NBCert #	ŧ 2913	5	
		,		_				
Manufacturer/As	ssembler		Desig	nators			Expiration Date	
Manufacturer	_	_	UV		_	_	05/08/2025	
[Relief Valve] 56 Capacity Tests: S Method of Establ Certified Value: 5 Media - Test: Air Set Pressure Def Blowdown Chara Flow Area Config Designed by: Her	04, 5604-YM, 5604- ec. UV at National B ishing Relieving Cap .330 SCFM/PSIA /Gas; Certified: Air, G inition: Bubble cteristics: Fixed uration: Nozzle/Full nry Technologies Ltd	YP board Testing L acity: Flow Cap Gas Lift {HNL}	ab (Picaway) on J bacity, Slope	uly 20, 198	39			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia	ı. Lift		Set Pressure Range	Media	Designator
1.25-1.625 NPS	1.5, 1-7/8 NPS	0.388 in ²	0.703 in			150-450 psi	Air	UV
Design Name	: 5701AX, 5	701GX			NBCert #	ŧ 0177	5	
Manufacturer/As	ssembler		Desig	nators			Expiration Date	
Manufacturer			UV				10/24/2025	
Design Type								
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 0 Media - Test: Air Set Pressure Def Blowdown Chara Flow Area Config Designed by: Her	ve] 5701AX, 5701G sec. UV at National E ishing Relieving Cap .808 SCFM/PSIA /Gas; Certified: Gas înition: Bubble cteristics: Fixed uration: Nozzle/Full nry Technologies I td	X Board Testing L acity: Flow Caj Lift {HNL}	ab on October 2, 2 bacity, Slope	2018				

Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia.	Lift	Set Pressure Range	Media	Designator
0.5 NPS	0.75 NPS	0.0614 in²	0.2795 in		0.0984 in	667-1885 psi	Air	UV
Design Name	e: 5702, 5702	2A, 5702B,	5702C		NBCert #	¢ 0176	64	
Manufacturer/As	ssembler			Designato	ors		Expiration Date	
Manufacturer				UV			05/09/2025	
Design Type								
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: Her	Ive] 5702, 5702A, 57 Sec. UV at National E lishing Relieving Cap 2.016 SCFM/PSIA /Gas; Certified: Gas finition: Bubble acteristics: Fixed guration: Nozzle/Full nry Technologies Ltd	702B, 5702C loard Testing L acity: Flow Ca Lift {HNL}	ab on Octo pacity, Slop	ber 3, 2018 be				
Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.25 NPS	1 NPS	0.134 in²	0.4134 in		0.157 in	449.5-1885 psi	Air	UV

Horizon Valve Services Inc (HVS)

Hominy, OK 74035United States

Design Nam	e: Reyco R, I	RB & RO (F	-ig. 971, 973, 974	4) NBCert	# 73000			
Manufacturer/A	Assembler		Designate	ors	E	Expiration Date		
Assembler			UV		06	6/15/2027		
Design Type								
[Safety Relief V Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure De Blowdown Char Flow Area Confi Designed by: Af	alve] Reyco R, RB & Sec. UV at National E blishing Relieving Cap 0.860 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full RI - Armaturen USA, I	RO (Fig. 971, Board Testing L bacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift _P {TAR}	973, 974) .ab on March 19, 1997 .pacity, K eam	,				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.122 in ²	[D] 0.394 in	0.12 in	15-2900 psi	Steam	UV	
1-1.5 NPS	2 - 3 NPS	0.122 in ²	[D] 0.394 in	0.12 in	15-6250 psi	Air	UV	
1-1.5 NPS	2 - 3 NPS	0.217 in ²	[E] 0.526 in	0.16 in	15-2900 psi	Steam	UV	
1-1.5 NPS	2 - 3 NPS	0.217 in ²	[E] 0.526 in	0.16 in	15-6250 psi	Air	UV	
1.5 NPS	2 - 3 NPS	0.34 in ²	[F] 0.658 in	0.2 in	15-2900 psi	Steam	UV	
4 5 1 5 0								

1.5-2 NPS	2.5, 3 NPS	0.558 in ²	[G] 0.843 in	0.26 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2.5, 3 NPS	0.558 in ²	[G] 0.843 in	0.26 in	15-4905 psi	Air	UV			
1.5-2 NPS	3 NPS	0.869 in ²	[H] 1.052 in	0.32 in	15-2900 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.869 in ²	[H] 1.052 in	0.32 in	15-3300 psi	Air	UV			
2-3 NPS	3, 4 NPS	1.427 in ²	[J] 1.348 in	0.41 in	15-2900 psi	Steam	UV			
2-3 NPS	3, 4 NPS	1.427 in ²	[J] 1.348 in	0.41 in	15-3300 psi	Air	UV			
3 NPS	4, 6 NPS	2.036 in ²	[K] 1.61 in	0.49 in	15-2900 psi	Steam	UV			
3 NPS	4, 6 NPS	2.036 in ²	[K] 1.61 in	0.49 in	15-3300 psi	Air	UV			
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Air	UV			
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Steam	UV			
4 NPS	6 NPS	3.987 in ²	[M] 2.253 in	0.69 in	15-1600 psi	Air	UV			
4 NPS	6 NPS	3.987 in ²	[M] 2.253 in	0.69 in	15-1600 psi	Steam	UV			
4 NPS	6 NPS	4.807 in ²	[N] 2.474 in	0.75 in	15-1600 psi	Air	UV			
4 NPS	6 NPS	4.807 in ²	[N] 2.474 in	0.75 in	15-1600 psi	Steam	UV			
4 NPS	6 NPS	7.07 in ²	[P] 3 in	0.92 in	15-1600 psi	Air	UV			
4 NPS	6 NPS	7.07 in ²	[P] 3 in	0.92 in	15-1600 psi	Steam	UV			
6 NPS	8 NPS	12.24 in ²	[Q] 3.948 in	1.2 in	15-925 psi	Air	UV			
6 NPS	8 NPS	12.24 in ²	[Q] 3.948 in	1.2 in	15-925 psi	Steam	UV			
6 NPS	8, 10 NPS	17.72 in ²	[R] 4.75 in	1.45 in	15-350 psi	Air	UV			
6 NPS	8, 10 NPS	17.72 in ²	[R] 4.75 in	1.45 in	15-350 psi	Steam	UV			
	10 NPS	29.75 in²	[T] 6.155 in	1 84 in	15-325 psi	Air	UV			
8 NPS		2011 0 111	[.]							
8 NPS 8 NPS	10 NPS	29.75 in ²	[T] 6.155 in	1.84 in	15-325 psi	Steam	UV			
8 NPS 8 NPS Design Name	10 NPS B: Reyco R, F 974) (liquic	29.75 in² RB, RO, RE 1)	[T] 6.155 in 3O (Fig. 971, 973	1.84 in ' NBCert #	15-325 psi # 73011	Steam	UV			
8 NPS 8 NPS Design Name Manufacturer/A	10 NPS Reyco R, F 974) (liquic ssembler	29.75 in² RB, RO, RE J)	[T] 6.155 in 3O (Fig. 971, 973 Designate	1.84 in , NBCert #	15-325 psi # 73011 Ex	Steam piration Date	UV			
8 NPS 8 NPS Design Name Manufacturer/A Assembler	10 NPS Reyco R, F 974) (liquic ssembler	29.75 in² RB, RO, RE 1)	[T] 6.155 in 3O (Fig. 971, 973 Designato UV	1.84 in , NBCert #	15-325 psi # 73011 Ex 06.	Steam piration Date /15/2027	UV			
8 NPS 8 NPS Design Name Manufacturer/A Assembler Design Type	10 NPS e: Reyco R, F 974) (liquic ssembler	29.75 in² RB, RO, RE	[T] 6.155 in 3O (Fig. 971, 973 Designato UV	1.84 in 'NBCert #	15-325 psi # 73011 Ex 06	Steam piration Date /15/2027				
8 NPS 8 NPS 8 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: AF	10 NPS 10 NPS Reyco R, F 974) (liquid ssembler eyco R, RB, RO, RBC Gec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L	29.75 in ² RB, RO, RE) O (Fig. 971, 97 Board Testing L bacity: Flow Ca Liquid Stream Lift _P {TAR}	[T] 6.155 in 3O (Fig. 971, 973 Designato UV 3, 974) (liquid) ab on September 27, 2 pacity, K	1.84 in , NBCert # prs	15-325 psi # 73011 Ex 06	Steam piration Date /15/2027				
8 NPS 8 NPS 8 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: AF	10 NPS 10 NPS Reyco R, R 974) (liquid ssembler eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L Outlet Size	29.75 in ² RB, RO, RE) D (Fig. 971, 97 Board Testing L bacity: Flow Ca Liquid Stream Lift P {TAR} Flow Area	[T] 6.155 in 3O (Fig. 971, 973 Designato UV 3, 974) (liquid) ab on September 27, 2 pacity, K	1.84 in , NBCert # prs 2001 Lift	15-325 psi # 73011 Ex 06	Steam piration Date /15/2027 Media	UV			
8 NPS 8 NPS 8 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR Inlet Size 1-1.5 NPS	10 NPS 10 NPS Reyco R, F 974) (liquid ssembler eyco R, RB, RO, RBO Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS	29.75 in ² RB, RO, RE D (Fig. 971, 975 Board Testing L bacity: Flow Ca Liquid Stream Lift P {TAR} Flow Area 0.122 in ²	[T] 6.155 in BO (Fig. 971, 973 Designato UV 3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in	1.84 in , NBCert # prs 2001 Lift 0.12 in	15-325 psi # 73011 Ex 06. Set Pressure Range 15-6250 psi	Steam piration Date (15/2027 Media Water	UV UV UV UV UV UV UV			
8 NPS 8 NPS 8 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] Re Capacity Tests: C Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: AF Inlet Size 1-1.5 NPS 1-1.5 NPS	10 NPS 10 NPS Reyco R, F 974) (liquid ssembler eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS	29.75 in ² RB, RO, RE D (Fig. 971, 97 Board Testing L bacity: Flow Ca Liquid Stream Lift P {TAR} Flow Area 0.122 in ² 0.217 in ²	[T] 6.155 in 30 (Fig. 971, 973 Designato UV 3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in	1.84 in 1.84 in NBCert # 2001 Lift 0.12 in 0.16 in	15-325 psi 4 73011 5 C C C P C C C C C C C C C C C C C C C	Steam piration Date (15/2027 (15/2027) (15/20)	UV UV UV UV UV UV UV			
8 NPS 8 NPS 8 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: (Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: AF Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5 NPS	10 NPS 10 NPS Reyco R, R 974) (liquid ssembler eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full R - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, - 3 NPS	29.75 in ² RB, RO, RE D (Fig. 971, 97 Board Testing L bacity: Flow Ca Liquid Stream Lift .P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ²	[T] 6.155 in 30 (Fig. 971, 973 Designato UV 3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in	1.84 in 1.84 in NBCert # 0.001 Lift 0.12 in 0.16 in 0.2 in	15-325 psi # 73011 Ex 06. 06. 06. 06. 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi	Steam piration Date (15/2027 (15/2027) (15/20)	UV UV UV UV UV UV UV UV			
8 NPS 8 NPS 8 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: AF Inlet Size 1-1.5 NPS 1.51 NPS 1.52 NPS	10 NPS 10 NPS Reyco R, F 974) (liquid ssembler eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2 - 3 NPS 2.5, 3 NPS	29.75 in ² 29.75 in ² RB, RO, RE 30 C (Fig. 971, 97 Board Testing L bacity: Flow Ca Liquid Stream Lift .P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.558 in ²	[T] 6.155 in 30 (Fig. 971, 973 Designato UV 3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [G] 0.843 in	1.84 in 1.84 in NBCert # 2001 Lift 0.12 in 0.16 in 0.2 in 0.26 in	15-325 psi 4 73011 5 C C C Pri C C C C C C C C C C C C C C C C C C C	Steam piration Date (15/2027 Media Water Water Water Water Water	UV UV UV U U U U U U U U U U U U U U U			
8 NPS 8 NPS 8 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] Re Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: AR Inlet Size 1-1.5 NPS 1.5 NPS 1.5-2 NPS 1.5-2 NPS	10 NPS 10 NPS Reyco R, F 974) (liquid ssembler eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full RI - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2.5, 3 NPS 3 NPS	29.75 in ² 29.75 in ² RB, RO, RE (1) 20 (Fig. 971, 975 Board Testing L bacity: Flow Ca Liquid Stream Lift P {TAR} Flow Area 0.122 in ² 0.217 in ² 0.34 in ² 0.558 in ² 0.869 in ²	[T] 6.155 in BO (Fig. 971, 973 Designato UV 3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [G] 0.843 in [H] 1.052 in	1.84 in 1.84 in NBCert # rs 2001 Lift 0.12 in 0.16 in 0.2 in 0.26 in 0.32 in	15-325 psi 4 73011 5 C C C Psi 5 C C C C S S S S S S S S S S S S S S S	Steam	UV UV UV U U U U U U U U U U U U U U U			
8 NPS 8 NPS 8 NPS 2 Solution 2 So	10 NPS 10 NPS Reyco R, F 974) (liquid ssembler eyco R, RB, RO, RBC Sec. UV at National E lishing Relieving Cap 0.724 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full A - Armaturen USA, L Outlet Size 2, 2.5, 3 NPS 2, 2.5, 3 NPS 2, 2.5, 3 NPS 3, 4 NPS 3, 4 NPS	29.75 in ² 29.75 in ² RB, RO, RE 3 20.75 in ² RB, RO, RE 3 20.71, 97 30.000 Car 10.000 Car 1.22 in ² 0.217 in ² 0.34 in ² 0.369 in ² 1.427 in ²	[T] 6.155 in BO (Fig. 971, 973 Designato UV 3, 974) (liquid) ab on September 27, 2 pacity, K Orifice [designator] dia. [D] 0.394 in [E] 0.526 in [F] 0.658 in [G] 0.843 in [H] 1.052 in [J] 1.348 in	1.84 in 1.84 in NBCert # ors 2001 Lift 0.12 in 0.16 in 0.26 in 0.32 in 0.41 in	15-325 psi 4 73011 5 25 psi 6 20 7 3011 6 20 6 20 7 301 7 301 7 301 7 300 7 301 7 300 7 400 7 7 400 7 7 400 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Steam piration Date (15/2027 Media Water Water Water Water Water Water Water	UV UV UV U U U U U U U U U U U U U U U			
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Water	UV			
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4 NPS	6 NPS	3.987 in ²	[M] 2.253 in	0.69 in	15-1600 psi	Water	UV			
4 NPS	6 NPS	4.807 in ²	[N] 2.474 in	0.75 in	15-1600 psi	Water	UV			
4 NPS	6 NPS	7.07 in ²	[P] 3 in	0.92 in	15-1600 psi	Water	UV			
6 NPS	8 NPS	12.24 in ²	[Q] 3.948 in	1.2 in	15-925 psi	Water	UV			
6 NPS	8, 10 NPS	17.72 in ²	[R] 4.75 in	1.45 in	15-350 psi	Water	UV			
8 NPS	10 NPS	29.75 in ²	[T] 6.155 in	1.84 in	15-325 psi	Water	UV			
Design Name: RL-14 & RLO-14 (0.315 in. orifice) NBCert # 73044										
Manufacturer/Assembler Designators Expiration Date										
Assembler			UV		0	6/15/2027				
Design Type										
[Safety Relief Valve] RL-14 & RLO-14 (0.315 in. orifice) Capacity Tests: Sec. UV at National Board Testing Lab on June 8, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.230 SCFM/PSIA; (alternate medium): 3.460 PPH/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: ARI - Armaturen USA, LP {TAR}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	1 NPS	0.078 in ²	0.315 in	0.078 in	15-2900 psi	Steam	UV			
0.5-1 NPS	1 NPS	0.078 in ²	0.315 in	0.078 in	15-5000 psi	Air	UV			
Design Name	e: RL-14 & R	LO-14 (0.3	15 in. orifice) (Lic	juids) NBCert a	# 73055					
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date				
Assembler			UV		0	06/15/2027				
Design Type										
[Relief Valve] RI Capacity Tests: S Method of Estab Certified Value: ' Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: AR	Design Type [Relief Valve] RL-14 & RLO-14 (0.315 in. orifice) (Liquids) Capacity Tests: Sec. UV at National Board Testing Lab on June 4, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 1.880 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed here Alle Alle Alle CLAP)									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	1 NPS	0.078 in ²	0.315 in	0.078 in	15-5000 psi	Water	UV			
Design Name	e: RL14 & RL	_014 (0.394	4 in. orifice)	NBCert	# 73202					
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date				
Assembler			UV		0	6/15/2027				

Design Type

[Safety Relief Valve] RL14 & RLO14 (0.394 in. orifice) Capacity Tests: Sec. UV at National Board Testing Lab on September 30, 2014 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.637 SCFM/PSIA; (alternate medium): 4.600 PPH/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: ARI - Armaturen USA, LP {TAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	1 NPS	0.122 in ²	0.394 in	0.0985 in	15-2900 psi	Steam	UV				
0.5-1 NPS	1 NPS	0.122 in ²	0.394 in	0.0985 in	15-5000 psi	Air	UV				
Design Name	e: RL14 & RL	_O14 (0.394	4 in. orifice) (Liqu	iid) NBCert ;	# 73213						
Manufacturer/Assembler Designators Expiration Date											
Assembler			UV		06	/15/2027					
Design Type											
[Relief Valve] RI Capacity Tests: \$ Method of Estab Certified Value: \$ Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: AR	[Relief Valve] RL14 & RLO14 (0.394 in. orifice) (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on September 30, 2014 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.021 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	1 NPS	0.122 in ²	0.394 in	0.0985 in	15-5000 psi	Water	UV				

IDC Plumbing & Heating Technology (Beijing) Co., Ltd. (IDC)

Zhuhai, Guangdong, 519170People's Republic of China

This Company Manufactures or Assembles:

Design Name: EUP3/4-150		NBCert #	0029	91
Manufacturer/Assembler	Designators			Expiration Date
Manufacturer	HV			09/20/2027
Design Type				
[Safety Valve] EUP3/4-150 HolderDesignation: Capacity Tests: Sec. HV at National Board Testing Lab on Dec Method of Establishing Relieving Capacity: Flow Capacity, 3 v. Certified Value:630000 BTU/HR; (alternate medium): 0.000 Media - Test: Steam; Certified: Saturated Water Set Pressure Definition: 40 CC Method Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: IDC Plumbing & Heating Technology (Beijing) Co	ember 8, 2020 alve average			

Nameplate Abbreviation: IDC

Inlet Size	Outlet Size	Flow Area	Orifice [designator]	dia. Lift		Set Pressure Range	Media	Designator		
0.75 NPS	0.75 NPS	0.19 in²	0.492 in	0.1	8 in	150-150 psi	Steam	HV		
Design Name	e: EUP3/4-30)			NBCert #	# 00280				
Manufacturer/A	ssembler		De	Designators			Expiration Date			
Manufacturer			H۱	/		06	6/01/2027			
Design Type										
[Safety Valve] E HolderDesignatic Capacity Tests: S Method of Establ Certified Value:4 Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: ID0	[Safety Valve] EUP3/4-30 HolderDesignation: Capacity Tests: Sec. HV at National Board Testing Lab on December 8, 2020 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average Certified Value:419000 BTU/HR; (alternate medium): 0.000 Media - Test: Steam; Certified: Saturated Water Set Pressure Definition: 40 CC Method Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift									
Inlet Size	Outlet Size	Flow Area	Orifice [designator]	dia. Lift		Set Pressure Range	Media	Designator		
0.75 NPS	0.75 NPS	0.312 in ²	0.63 in	0.11	8 in	30-30 psi	Steam	HV		

Industrial Service Solutions, LLC (WSL)

Salt Lake City, UT 84119United States

This Company Manufactures or Assembles:

Design Name	e: 1811, 1511			NBCert #	# 18122				
Manufacturer/A	ssembler		Designato	ors	E	Expiration Date			
Assembler			UV, V		03	8/13/2025			
Design Type									
[Safety Valve] 1811, 1511 Capacity Tests: Sec. UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Steam	UV, V		
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Air	UV		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Steam	UV, V		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Air	UV		
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Steam	UV, V		
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Air	UV		

Nameplate Abbreviation: Industrial Service Solutions

1.5-2.5 NPS	2.5 NPS	1.287 in²	[J] 1.281 in	0.321 in	15-1500 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Air	UV
2-3 NPS	3, 4 NPS	1.84 in²	[K] 1.531 in	0.383 in	15-1500 psi	Steam	UV, V
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Air	UV
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Steam	UV, V
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Air	UV
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Steam	UV, V
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Air	UV
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV
Design Name	e: 1900, 1900 (Liquids))-30 1900-3	35 LA & DALA	NBCert a	# 18784	ļ	
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Assembler			UV		0	3/13/2025	
Design Type							
Capacity Tests: S	Sec. NV, UV, V at Dre	esser, Inc. on J	uly 12, 1995				
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	blishing Relieving Cap 0.670 Unitless 'ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ}	bacity: Flow Ca Liquid Stream Lift	pácity, K				
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	Dishing Relieving Cap 0.670 Unitless dater/Liquid; Certified: offinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size	bacity: Flow Ca Liquid Stream Lift Flow Area	pacity, K Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size	blishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: ofinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS	Dacity: Flow Ca Liquid Stream Lift Flow Area 0.128 in ²	pácity, K Orifice [designator] dia. [D] 0.4036 in	Lift 0.095 in	Set Pressure Range 15-6250 psi	Media Water	Designator NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS	blishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: afinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ²	Orifice [designator] dia. [D] 0.4036 in [E] 0.5387 in	Lift 0.095 in 0.127 in	Set Pressure Range 15-6250 psi 15-6250 psi	Media Water Water	Designator NV, UV, V NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5-1.5 NPS	blishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ²	Orifice [designator] dia. [D] 0.4036 in [E] 0.5387 in [F] 0.674 in	Lift 0.095 in 0.127 in 0.16 in	Set Pressure Range 15-6250 psi 15-6250 psi 15-6250 psi	Media Water Water Water	Designator NV, UV, V NV, UV, V NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS	blishing Relieving Cap 0.670 Unitless later/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2.5, 3 NPS	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.585 in ²	Orifice [designator] dia. [D] 0.4036 in [E] 0.5387 in [F] 0.674 in [G] 0.863 in	Lift 0.095 in 0.127 in 0.16 in 0.205 in	Set Pressure Range 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi	Media Water Water Water Water	Designator NV, UV, V NV, UV, V NV, UV, V NV, UV, V NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS	blishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: ofinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2.5, 3 NPS 3 NPS	Dacity: Flow Ca Liquid Stream Lift Flow Area 0.128 in² 0.228 in² 0.357 in² 0.585 in² 0.913 in²	Drifice [designator] dia. [D] 0.4036 in [E] 0.5387 in [F] 0.674 in [G] 0.863 in [H] 1.078 in	Lift 0.095 in 0.127 in 0.16 in 0.205 in 0.395 in	Set Pressure Range 15-6250 psi	Media Water Water Water Water Water	Designator NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	blishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: ater/Liquid; Certified: ater/Liquid; Certified: ater/Liquid; Certified: ater/Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3, 4 NPS	A city: Flow Ca Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.585 in ² 0.913 in ² 1.496 in ²	Pacity, K Orifice [designator] dia. [D] 0.4036 in [E] 0.5387 in [F] 0.674 in [G] 0.863 in [G] 0.863 in [H] 1.078 in [J] 1.38 in	Lift 0.095 in 0.127 in 0.16 in 0.205 in 0.395 in 0.506 in	Set Pressure Range 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6300 psi 15-3300 psi 15-3100 psi	Media Water Water Water Water Water Water	Designator NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS	Alishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: Ater/Liquid; Certified: Ater/Liquid; Certified: Ater/Liquid; Certified: Ater/Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS	A city: Flow Ca Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.585 in ² 0.913 in ² 1.496 in ² 2.138 in ²	Orifice [designator] dia. [D] 0.4036 in [E] 0.5387 in [F] 0.674 in [G] 0.863 in [J] 1.078 in [J] 1.38 in [K] 1.65 in	Lift 0.095 in 0.127 in 0.16 in 0.205 in 0.395 in 0.506 in 0.605 in	Set Pressure Range 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6300 psi 15-300 psi 15-3100 psi 15-3400 psi	Media Water Water Water Water Water Water Water	Designator NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS 3-4 NPS	Alishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: offinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.913 in ² 1.496 in ² 2.138 in ² 3.317 in ²	Pacity, K Orifice [designator] dia. [D] 0.4036 in [E] 0.5387 in [E] 0.674 in [G] 0.863 in [H] 1.078 in [J] 1.38 in [J] 1.38 in [J] 1.65 in [L] 2.055 in	Lift 0.095 in 0.127 in 0.127 in 0.205 in 0.205 in 0.395 in 0.506 in 0.506 in 0.605 in	Set Pressure 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6300 psi 15-3300 psi 15-3400 psi 15-2900 psi	Media Water Water Water Water Water Water Water Water	Designator NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS 3-4 NPS 4-4 NPS	Alishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: ofinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 6 NPS	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.585 in ² 0.913 in ² 1.496 in ² 2.138 in ² 3.317 in ² 4.186 in ²	Orifice [designator] dia. [D] 0.4036 in [E] 0.5387 in [F] 0.674 in [G] 0.863 in [H] 1.078 in [J] 1.38 in [L] 2.055 in [M] 2.3086 in	Lift 0.095 in 0.127 in 0.16 in 0.205 in 0.395 in 0.506 in 0.506 in 0.605 in 0.753 in 0.846 in	Set Pressure 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6300 psi 15-3100 psi 15-3400 psi 15-2900 psi 15-1600 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS 3-4 NPS 4-4 NPS	blishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 6 NPS 6 NPS	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.357 in ² 0.913 in ² 1.496 in ² 2.138 in ² 3.317 in ² 4.186 in ² 5.047 in ²	Orifice [designator] dia. [D] 0.4036 in [D] 0.5387 in [E] 0.5387 in [G] 0.863 in [H] 1.078 in [J] 1.38 in [K] 1.65 in [L] 2.055 in [M] 2.3086 in [N] 2.535 in	Lift 0.095 in 0.127 in 0.16 in 0.205 in 0.395 in 0.506 in 0.506 in 0.605 in 0.753 in 0.846 in 0.929 in	Set Pressure 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6300 psi 15-3300 psi 15-3400 psi 15-2900 psi 15-1600 psi 15-1600 psi	Media Water Water Water Water Water Water Water Water Water Water Water	Designator NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS 3-4 NPS 4-4 NPS 4-4 NPS	blishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 6 NPS 6 NPS	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.357 in ² 0.913 in ² 1.496 in ² 2.138 in ² 3.317 in ² 4.186 in ² 5.047 in ²	Orifice [designator] dia. [D] 0.4036 in [E] 0.5387 in [F] 0.674 in [G] 0.863 in [H] 1.078 in [J] 1.38 in [L] 2.055 in [L] 2.3086 in [M] 2.3085 in [P] 3.073 in	Lift 0.095 in 0.127 in 0.16 in 0.205 in 0.395 in 0.395 in 0.506 in 0.506 in 0.605 in 0.753 in 0.846 in 0.846 in 0.929 in 1.126 in	Set Pressure Range 15-6250 psi 15-600 psi 15-1600 psi 15-1600 psi 15-1700 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-4 NPS 3-4 NPS 4-4 NPS 4-4 NPS 6-6 NPS	Alishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: offinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 6 NPS 6 NPS 6 NPS 8 NPS	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.357 in ² 0.913 in ² 1.496 in ² 2.138 in ² 3.317 in ² 4.186 in ² 5.047 in ² 12.851 in ²	Orifice [designator] dia. [D] 0.4036 in [D] 0.4036 in [E] 0.5387 in [E] 0.674 in [G] 0.863 in [H] 1.078 in [J] 1.38 in [L] 2.055 in [M] 2.3086 in [N] 2.535 in [P] 3.073 in [Q] 4.045 in	Lift 0.095 in 0.127 in 0.127 in 0.16 in 0.205 in 0.395 in 0.395 in 0.506 in 0.506 in 0.605 in 0.605 in 0.753 in 0.846 in 0.929 in 1.126 in	Set Pressure 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6250 psi 15-6300 psi 15-3100 psi 15-3400 psi 15-1600 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator NV, UV, V
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-3 NPS 3-3 NPS 3-4 NPS 4-4 NPS 4-4 NPS 6-6 NPS 6-6 NPS	Alishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: offinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 6 NPS 6 NPS 6 NPS 8 NPS 8 NPS 8, 10 NPS	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.357 in ² 0.913 in ² 1.496 in ² 2.138 in ² 3.317 in ² 4.186 in ² 5.047 in ² 12.851 in ² 18.604 in ²	Orifice [designator] dia. [D] 0.4036 in [D] 0.4036 in [E] 0.5387 in [E] 0.674 in [G] 0.863 in [H] 1.078 in [J] 1.38 in [L] 2.055 in [M] 2.3086 in [N] 2.535 in [P] 3.073 in [Q] 4.045 in [R] 4.867 in	Lift 0.095 in 0.127 in 0.127 in 0.16 in 0.205 in 0.395 in 0.395 in 0.506 in 0.506 in 0.506 in 0.605 in 0.605 in 0.846 in 0.846 in 0.929 in 1.126 in 1.482 in	Set Pressure 15-6250 psi 15-6000 psi 15-3100 psi 15-3400 psi 15-1600 psi 15-1700 psi 15-9900 psi 15-900 psi 15-900 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water Water Water Water	Designator NV, UV, V
Method of Estab Certified Value: O Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1.5-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 2-3 NPS 3-4 NPS 4-4 NPS 4-4 NPS 4-4 NPS 6-6 NPS 6-6 NPS 8-8 NPS	Alishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: ater/Liquid; Cer	Liquid Stream Lift Flow Area 0.128 in ² 0.228 in ² 0.357 in ² 0.357 in ² 0.357 in ² 0.913 in ² 1.496 in ² 2.138 in ² 3.317 in ² 4.186 in ² 5.047 in ² 12.851 in ² 18.604 in ² 28.624 in ²	Orifice [designator] dia. [D] 0.4036 in [D] 0.4036 in [E] 0.5387 in [E] 0.674 in [G] 0.863 in [H] 1.078 in [J] 1.38 in [K] 1.65 in [L] 2.055 in [M] 2.3086 in [P] 3.073 in [Q] 4.045 in [R] 4.867 in [T] 6.04 in	Lift 0.095 in 0.127 in 0.16 in 0.205 in 0.395 in 0.395 in 0.506 in 0.506 in 0.605 in 0.753 in 0.846 in 0.929 in 1.126 in 1.482 in 1.782 in 2.212 in	Set Pressure 15-6250 psi 15-6000 psi 15-3400 psi 15-2900 psi 15-1600 psi 15-1700 psi 15-900 psi 15-300 psi 15-300 psi 15-300 psi 15-300 psi	MediaWater	Designator NV, UV, V NV, UV, V

8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V				
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V				
12-12 NPS	16 NPS	78.996 in²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V				
Design Name	e: 1900, 1900	0-30, 1900-	-35	NBCert ;	# 18201						
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date					
Assembler UV 03/13/2025											
Design Type											
Design Type [Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser LLC {DR.}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV				
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV				
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV				
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV				
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV				
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV				
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV				
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV				
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV				
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV				
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV				
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV				
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV				
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV				
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV				
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV				
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV				
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV				
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV				
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV				
4 NPS	6 NPS	7.417 in²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV				
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV				
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV				
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV				
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV				
6 NPS	8, 10 NPS	18.6 in²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV				

8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV

Design Name: 19000 Series	NBCert # 187	06
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/02/2028
Design Type		
[Safety Relief Valve] 19000 Series		

Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV

1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV		
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV		
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV		
Design Name: 19000 Series, Liquid NBCert # 18717									
Manufacturer/A	Assembler		Des	signators	E	xpiration Da	ite		
Assembler			UV		0	2/02/2028			
Design Type									
[Relief Valve] 19000 Series, Liquid Capacity Tests: Sec. UV at Dresser, Inc. on August 30, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.673 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] o	dia. Lift	Set Pressure Range	Media	Designator		
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV		
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV		
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV		
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV		
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV		
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV		
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV		
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV		
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV		
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV		
1.5-1.5 NPS	2 NPS	0.357 in²	0.675 in	0.212 in	15-1500 psi	Water	UV		
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV		
Design Nam	Design Name: 1900-DM NBCert # 19066								
Manufacturer/Assembler				signators	E	Expiration Date			
Assembler			UV		0	2/08/2028			

Design Type

[Safety Relief Valve] 1900-DM

HolderDesignation:

Capacity Tests: Sec. UV at Dresser, Inc. on March 15, 2010

Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless; (alternate medium): 0.670 Unitless; Certification Provisions: Multiple Media (Code Case 2787) Media - Test: Air/Gas, Water/Liquid; Certified: Air, Gas, Liquid

Set Pressure Definition(1): Pop; (2): First Steady Stream

Blowdown Characteristics: Fixed

Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-10000 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-10000 psi	Water	UV
1.5-2 NPS	3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-10000 psi	Air	UV
1.5-2 NPS	3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-10000 psi	Water	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.395 in	15-10000 psi	Air	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.395 in	15-10000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-10000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-10000 psi	Air	UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3000 psi	Air	UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3000 psi	Water	UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Air	UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	0.846 in	15-1600 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	0.846 in	15-1600 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.782 in	15-650 psi	Air	UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.782 in	15-650 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-360 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-360 psi	Water	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	2.428 in	15-360 psi	Air	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	2.428 in	15-360 psi	Water	UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Air	UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Air	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	UV

Design Name	e: 1900-DM-I	E		NBCert #	# 1909	9						
Manufacturer/A	ssembler		Designato	ors		Expiration Date	•					
Assembler			UV		(02/08/2028						
Design Type												
[Safety Relief Valve] 1900-DM-E HolderDesignation: Capacity Tests: Sec. UV at National Board Testing Lab on March 10, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 3.558 SCFM/PSIA; (alternate medium): 5.798 GPM/SQ.RT. PSID; Certification Provisions: Multiple Media (Code Case 2787) Media - Test: Air/Gas, Water/Liquid; Certified: Air, Gas, Liquid Set Pressure Definition(1): Pop; (2): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}												
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator					
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 in	0.105 in	15-10000 psi	Air	UV					
Design Name: 19110M & 19110H (Liquids) NBCert # 19077												
Manufacturer/A	ssembler		Designato	Designators			Expiration Date					
Assembler			UV	V 04/09/2025								
Design Type												
[Relief Valve] 19110M & 19110H (Liquids) Capacity Tests: Sec. NV, UV at Dresser, Inc. on July 29, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 2.264 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser LI C (DR I)												
[Relief Valve] 19 Capacity Tests: 5 Method of Establ Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	110M & 19110H (Lic Sec. NV, UV at Dress lishing Relieving Cap 2.264 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ}	juids) ser, Inc. on July bacity: Flow Ca SID Liquid Stream Lift	r 29, 2010 pacity, Flow Factor									
[Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	110M & 19110H (Lic Sec. NV, UV at Dress Lishing Relieving Cap 2.264 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ}	juids) ser, Inc. on July pacity: Flow Ca SID Liquid Stream Lift Flow Area	v 29, 2010 pacity, Flow Factor Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator					
[Relief Valve] 19 Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 0.5-1 NPS	110M & 19110H (Lic Sec. NV, UV at Dress lishing Relieving Cap 2.264 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS	juids) ser, Inc. on July pacity: Flow Ca 'SID Liquid Stream Lift Flow Area 0.11 in ²	29, 2010 pacity, Flow Factor Orifice [designator] dia. 0.375 in	Lift 0.118 in	Set Pressure Range 290-5000 psi	Media Water	Designator					
[Relief Valve] 19 Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 0.5-1 NPS 0.5-1 NPS	110M & 19110H (Lic Sec. NV, UV at Dress lishing Relieving Cap 2.264 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	juids) ser, Inc. on July pacity: Flow Ca SID Liquid Stream Lift Flow Area 0.11 in ² 0.11 in ²	29, 2010 pacity, Flow Factor Orifice [designator] dia. 0.375 in 0.375 in	Lift 0.118 in 0.118 in	Set Pressure Range 290-5000 psi 290-5000 psi	Media Water Water	Designator UV NV					

Integrated Plant Services, Inc. (IPS)

Columbus, OH 43219United States

This Company Manufactures or Assembles:

Design Name:	1900, 1900-30 1900-35 LA & (Liquids)	DALA	NBCert # 187	84
Manufacturer/Assem	bler	Designators		Expiration Date
Assembler		UV		09/23/2025

Nameplate Abbreviation: Integrated Plant Services [Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V	
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V	
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V	
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V	
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V	
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V	
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V	
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V	
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V	
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V	
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V	
6-6 NPS	8 NPS	12.851 in²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V	
6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V	
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V	
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V	
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V	
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V	
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V	
Design Name	e: 1900, 1900)-30, 1900-	35	NBCert ‡	¥ 18201			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Assembler			UV		09/	23/2025		
Design Type								
[Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift								
Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	Sec. NV, UV at Dress lishing Relieving Cap 0.855 Unitless r/Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ}	er, Inc. on Octo pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift	ober 11, 1954 pacity, K eam					
Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	Sec. NV, UV at Dress lishing Relieving Cap 0.855 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ}	er, Inc. on Oct pacity: Flow Ca ed: Air, Gas, St (Single Ring) Lift	ober 11, 1954 pacity, K eam Orifice		Sat Proceuro			
Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size	Sec. NV, UV at Dress lishing Relieving Cap 0.855 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size	er, Inc. on Octo pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift Flow Area	ober 11, 1954 pacity, K eam Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
Inlet Size	Sec. NV, UV at Dress lishing Relieving Cap 0.855 Unitless //Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2-3 NPS	er, Inc. on Octo pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift Flow Area 0.1279 in ²	ober 11, 1954 pacity, K eam Orifice [designator] dia. [D] 0.4035 in	Lift 0.11 in	Set Pressure Range 15-2000 psi	Media Steam	Designator NV, UV	
Inlet Size 1-1.5 NPS	Sec. NV, UV at Dress lishing Relieving Cap 0.855 Unitless //Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2-3 NPS 2-3 NPS	er, Inc. on Octo pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift Flow Area 0.1279 in ² 0.1279 in ²	ober 11, 1954 pacity, K eam Orifice [designator] dia. [D] 0.4035 in [D] 0.4035 in	Lift 0.11 in 0.11 in	Set Pressure Range 15-2000 psi 15-6250 psi	Media Steam Air	Designator NV, UV NV, UV	

1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV
	4000-400						
Design Name	e: 1900, 1900	J-30, 1900-	-35 (R.L.)	NBCert #	# 18223		

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/23/2025

[Safety Relief Valve] 1900, 1900-30, 1900-35 (R.L.) Capacity Tests: Sec. NV, UV at Dresser, Inc. on June 19, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless; Certification Provisions: Restricted Lift (Prev. CC N-394 or 1945) Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2, 3 NPS	0.1279 in ²	[D] 0.4036 in	0.08 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2, 3 NPS	0.1279 in ²	[D] 0.4036 in	0.08 in	15-6250 psi	Steam	NV, UV
1-1.5 NPS	2, 3 NPS	0.2279 in ²	[E] 0.5387 in	0.08 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2, 3 NPS	0.2279 in ²	[E] 0.5387 in	0.08 in	15-6250 psi	Steam	NV, UV
1.5 NPS	2, 3 NPS	0.3568 in ²	[F] 0.674 in	0.08 in	15-6250 psi	Air	NV, UV
1.5 NPS	2, 3 NPS	0.3568 in ²	[F] 0.674 in	0.08 in	15-6250 psi	Steam	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5849 in ²	[G] 0.863 in	0.08 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5849 in ²	[G] 0.863 in	0.08 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.087 in	15-3300 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.087 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.112 in	15-3100 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.112 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.134 in	15-3400 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.134 in	15-2540 psi	Steam	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.167 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.167 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.187 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.187 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.205 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.205 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.249 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.249 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	0.327 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	0.327 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	0.387 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	0.387 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	0.504 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	0.504 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	0.517 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	0.517 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	0.552 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in ²	[U] 6.688 in	0.552 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	0.648 in	15-300 psi	Air	NV, UV

12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	0.757 in	15-300 psi	Steam	NV, UV		
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	0.757 in	15-300 psi	Air	NV, UV		
Design Name	e: 19000 Seri	ies		NBCert #	‡ 18706				
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date			
Assembler			UV		1	0/17/2024			
Design Type									
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV		
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV		
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV		
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV		
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV		
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV		
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV		
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV		
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV		
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV		
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV		
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV		
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV		
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV		
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV		
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV		
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV		
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV		
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV		
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV		
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV		
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV		

0.648 in

15-300 psi

10 NPS

14 NPS

50.26 in²

[V] 8 in

NV, UV

Steam

Design Nam	e: 19000 Sei	ries, Liquid		NBCert	# 18717			
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	•	
Assembler			UV		1	0/17/2024		
Design Type								
[Relief Valve] 1 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Chai Flow Area Conf Designed by: D	9000 Series, Liquid Sec. UV at Dresser, blishing Relieving Ca 0.673 Unitless /ater/Liquid; Certified efinition: First Steady racteristics: Fixed iguration: Nozzle/Full resser, LLC {DRJ}	Inc. on August pacity: Flow Ca : Liquid Stream Lift	30, 1994 apacity, K					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV	
Design Nam	e: 1900D-2,	1900-30D-2	2	NBCert	# 18144			
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	•	
Assembler			UV		0	9/23/2025		
Design Type								
[Safety Relief V Capacity Tests: Method of Esta Certified Value: Media - Test: A Set Pressure D Blowdown Chau Flow Area Conf Designed by: D	[Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	

[D] 0.674 in

0.066 in

0.1279 in²

0.1279 in²

1-1.5 NPS

1-1.5 NPS

2-3 NPS

2-3 NPS

[D] 0.674 in	0.066 in	15-6250 psi	Air	UV	

15-4230 psi

NV, UV

Steam

Design Name: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 1

1-1.5 NPS

2 - 3 NPS

0.2279 in²

[E] 0.674 in

0.093 in

15-6250 psi

Water

Manufacturer/	Assembler		Designat	tors	E	Expiration Date		
Assembler			UV		0	9/23/2025		
Design Type								
[Relief Valve] 1 Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Conf Designed by: D	900D-2, 1900-30D-2 Sec. NV, UV, V at Dr olishing Relieving Ca 3.256 GPM/SQ.RT. I /ater/Liquid; Certified efinition: First Steady racteristics: Fixed iguration: Restricted resser, LLC {DRJ}	LA & DALA (Li resser, Inc. on pacity: Flow Ca PSID I: Liquid 7 Stream Lift	quids) luly 12, 1995 apacity, Flow Factor					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V	
Design Nam	e: 1900E-2,	1900-30E-2	2	NBCe	ert # 18166			
Manufacturer/	Assembler		Designat	tors	E	xpiration Da	te	
Assembler			UV		0	9/23/2025		
Design Type								
Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure De Blowdown Char Flow Area Conf Designed by: D	Sec. NV, UV at Dres olishing Relieving Ca 10.040 PPH/PSIA; (a ir/Gas, Steam; Certifi efinition: Pop racteristics: Adjustabl iguration: Restricted resser, LLC {DRJ}	ser, Inc. on Aug pacity: Flow Ca Ilternate mediuu ied: Air, Gas, Si e (Single Ring) Lift	gust 16, 1977 apacity, Slope m): 3.570 SCFM/PSIA team	À				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV	
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV	
Design Nam	e: 1900E-2,	1900-30E-2	2 LA & DALA (Lic	quids) NBCe	ert # 18762			
Manufacturer/	Assembler		Designat	tors	E	xpiration Da	te	
Assembler			UV		0	9/23/2025		
Design Type [Relief Valve] 1 Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure D Blowdown Char Flow Area Conf Designed by: D	900E-2, 1900-30E-2 Sec. NV, UV, V at Dr blishing Relieving Ca 5.798 GPM/SQ.RT. I /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Restricted resser, LLC {DRJ}	LA & DALA (Lir resser, Inc. on C pacity: Flow Ca PSID I: Liquid v Stream Lift	quids) luly 12, 1995 apacity, Flow Factor					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	

NV, UV, V

Design Name: 19110M & 19110H (Liquid	ds) NB	Cert # 1907 ⁻	7					
Manufacturer/Assembler	Designators	I	Expiration Date					
Assembler	UV	C	9/23/2025					
Design Type								
[Relief Valve] 19110M & 19110H (Liquids) Capacity Tests: Sec. NV, UV at Dresser, Inc. on July 29, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 2.264 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size Outlet Size Flow Area [des	iice Lift signator] dia.	Set Pressure Range	Media	Designator				
0.5-1 NPS 1 NPS 0.11 in ² 0.37	75 in 0.118 in	290-5000 psi	Water	UV				
0.5-1 NPS 1 NPS 0.11 in ² 0.37	75 in 0.118 in	290-5000 psi	Water	NV				

Jiangsu Reliable Mechanical Equipment Co., Ltd. (JRM)

Nanjing, Jiangsu Province, 211316People's Republic of China

This Company Manufactures or Assembles:

Design Name	e: IN-P Serie	s (12"-78" N	NPS)	NB	Cert #	0154	0		
Manufacturer/A	ssembler		Designat	ors			Expiration Dat	e	
Manufacturer			UD				08/28/2024		
Design Type									
[Buckling Pin Non-reclosing Device] IN-P Series (12"-78" NPS) Capacity Tests: Sec. UD at National Board Testing Lab on August 14, 2017 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krg Certified Value: 1.120 Unitless Media - Test: Air/Gas; Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Buckling Pressure Flow Area Configuration: MNFA Designed by: Jiangsu Reliable Mechanical Equipment Co., Ltd. {JRM}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set P Rang	Pressure Je	Media	Designator	
12 NPS	12 NPS	78.776 in ²			0.5-22	250 psi	Air	UD	
14 NPS	14 NPS	97.342 in ²			0.5-2	250 psi	Air	UD	
16 NPS	16 NPS	143.464 in ²			0.5-2	250 psi	Air	UD	
18 NPS	18 NPS	178.071 in ²			0.5-2	250 psi	Air	UD	
20 NPS	20 NPS	224.149 in ²			0.5-2	250 psi	Air	UD	
22 NPS	22 NPS	275.579 in ²			0.5-2	250 psi	Air	UD	
24 NPS	24 NPS	330.358 in ²			0.5-22	250 psi	Air	UD	
26 NPS	26 NPS	381.907 in ²			0.5-1	440 psi	Air	UD	
28 NPS	28 NPS	450.438 in ²			0.5-1	440 psi	Air	UD	

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Nameplate Abbreviation: JRME

0 NPS : 2 NPS : 4 NPS : 6 NPS : 8 NPS : 0 NPS : 2 NPS : 4 NPS :	30 NPS 524.62 in² 32 NPS 604.455 in 34 NPS 689.941 in 36 NPS 781.08 in² 38 NPS 877.87 in² 40 NPS 980.313 in 42 NPS 1088.41 in	2 n ² 2 2 n ² n ² n ²	0.5-1440 psi 0.5-1440 psi 0.5-1440 psi 0.5-1440 psi 0.5-1440 psi 0.5-1440 psi	Air Air Air Air Air Air	UD UD UD UD
2 NPS 3 4 NPS 3 6 NPS 3 8 NPS 3 0 NPS 4 2 NPS 4	32 NPS 604.455 in 34 NPS 689.941 in 36 NPS 781.08 in² 38 NPS 877.87 in² 40 NPS 980.313 in 42 NPS 1088.41 in	n ² n ² 2 n ² n ²	0.5-1440 psi 0.5-1440 psi 0.5-1440 psi 0.5-1440 psi 0.5-1440 psi	Air Air Air Air Air	UD UD UD
4 NPS : 6 NPS : 8 NPS : 0 NPS : 2 NPS :	34 NPS 689.941 in 36 NPS 781.08 in ² 38 NPS 877.87 in ² 40 NPS 980.313 in 42 NPS 1088.41 in	n² ² n² n²	0.5-1440 psi 0.5-1440 psi 0.5-1440 psi 0.5-1440 psi	Air Air Air Air	UD UD UD
6 NPS 3 8 NPS 3 0 NPS 4 2 NPS 4	36 NPS 781.08 in² 38 NPS 877.87 in² 40 NPS 980.313 in 42 NPS 1088.41 in	2 2 n ² n ²	0.5-1440 psi 0.5-1440 psi 0.5-1440 psi	Air Air Air	UD UD
8 NPS 3 0 NPS 4 2 NPS 4	38 NPS 877.87 in² 40 NPS 980.313 in 42 NPS 1088.41 in	² n² n²	0.5-1440 psi 0.5-1440 psi	Air Air	UD
0 NPS	40 NPS 980.313 in 42 NPS 1088.41 in	n²	0.5-1440 psi	Air	
	42 NPS 1088.41 in	n²			UD
			0.5-1440 psi	Air	UD
	44 NPS 1202.15 in	n²	0.5-1440 psi	Air	UD
6 NPS	46 NPS 1321.55 in	n²	0.5-1440 psi	Air	UD
8 NPS	48 NPS 1446.6 in ²	2	0.5-1440 psi	Air	UD
0 NPS 5	50 NPS 1577.31 in	n²	0.5-720 psi	Air	UD
2 NPS	52 NPS 1713.66 in	n²	0.5-720 psi	Air	UD
4 NPS 5	54 NPS 1855.67 in	n²	0.5-720 psi	Air	UD
6 NPS	56 NPS 2003.33 in	n²	0.5-720 psi	Air	UD
8 NPS 5	58 NPS 2156.64 in	n²	0.5-720 psi	Air	UD
0 NPS 6	60 NPS 2315.6 in ²	2	0.5-720 psi	Air	UD
	64 NPS 2650.48 in	n²	0.5-720 psi	Air	UD
4 11 17 5 (n²	0.5-720 psi	Air	UD
8 NPS 6	68 NPS 3007.97 in		0.5.700	Air	UD
4 NPS (8 NPS (2 NPS 7	68 NPS 3007.97 in 72 NPS 3388.07 in	n²	0.5-720 psi	All	00
4 NPS 5 6 NPS 5 8 NPS 5 0 NPS 6	52 NPS 1713.00 m 54 NPS 1855.67 in 56 NPS 2003.33 in 58 NPS 2156.64 in 60 NPS 2315.6 in² 64 NPS 2650.48 in	n ² n ² n ² ² n ² n ²	0.5-720 psi 0.5-720 psi 0.5-720 psi 0.5-720 psi 0.5-720 psi 0.5-720 psi 0.5-720 psi	Air Air Air Air Air Air Air	

LAM VALVES INC. (LMV)

Houston, TX 77023United States

This Company Manufactures or Assembles:

Design Name	e: Kunkle 1, 2	2		NBCert	# 36223	3			
Manufacturer/A	ssembler		Designate	ors	E	Expiration Date	;		
Assembler			UV		C	08/08/2024			
Design Type									
[Safety Valve] Kunkle 1, 2 Capacity Tests: Sec. UV at unknown lab on July 1, 1953 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.823 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Emerson Automation Solutions Final Control US LP {AGC}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-0.75 NPS	.75, Top NPS	0.049 in ²	0.75 in	0.029 in	15-250 psi	Air	UV		
0.5-0.75 NPS	.75, Top NPS	0.049 in ²	0.75 in	0.029 in	15-250 psi	Steam	UV		
1 NPS	1, Top NPS	0.0844 in ²	1 in	0.038 in	15-250 psi	Air	UV		

1 NPS	1, Top NPS	0.0844 in ²	1 in		0.038 in	15-250 psi	Steam	UV
Design Name	e: Kunkle 264	4, 265, 266	& 267		NBCert #	# 3620	67	
Manufacturer/A	ssembler			Designate	ors		Expiration Date	
Assembler				UV			08/07/2024	
Design Type								
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: En	lve] Kunkle 264, 265 Sec. UV at unknown lishing Relieving Cap 0.766 Unitless r/Gas, Steam; Certifie finition: Pop acteristics: Fixed guration: Nozzle/Full herson Automation S	5, 266 & 267 lab on July 20, pacity: Flow Ca ed: Air, Gas, Ste Lift olutions Final C	1956 pacity, K eam Control US I	LP {AGC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designat	tor] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.11 in ²	0.375 in		0.115 in	15-2000 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.11 in ²	0.375 in		0.115 in	15-3300 psi	Air	UV
Design Name	e: Kunkle 33 [°]	7			NBCert i	# 362 [°]	78	
Manufacturer/A	ssembler			Designate	ors		Expiration Date	
Assembler				UV			08/08/2024	
Design Type								
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: En	Ive] Kunkle 337 Sec. UV at unknown lishing Relieving Cap 0.860 Unitless r/Gas; Certified: Air, G finition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S	lab on Februar pacity: Flow Ca Gas Lift olutions Final C	y 22, 1982 pacity, K Control US I	LP {AGC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designat	tor] dia.	Lift	Set Pressure Range	Media	Designator
2 NPS	2 NPS	1.916 in ²	1.562 in		0.612 in	15-60 psi	Air	UV
2.5 NPS	2.5 NPS	2.786 in ²	1.883 in		0.755 in	15-60 psi	Air	UV
3 NPS	3 NPS	4.037 in ²	2.267 in		0.91 in	15-60 psi	Air	UV
Design Name	e: Kunkle 54	1-A/542-A (.295 orif	ice)	NBCert #	# 364	69	
Manufacturer/A	ssembler			Designate	ors		Expiration Date	
Assembler				UV			05/21/2024	
Design Type								
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: Media - Test: Ain Set Pressure De Blowdown Chara Elow Area Copfir	Ive] Kunkle 541-A/5 Sec. UV at unknown lishing Relieving Cap 1.000 SCFM/PSIA //Gas; Certified: Air, (finition: Pop acteristics: Fixed auteristics: Fixed	42-A (.295 orific lab on Decemb bacity: Flow Ca Gas	ce) ber 14, 2010 pacity, Slop))e				

Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.25 NPS		0.068 in ²	0.295 in	0.126 in	15-200 psi	Air	UV
Design Name	: Kunkle 541	I-C/542-C/	548-C (.422 Orific	ce) NBCert #	# 36302		
Manufacturer/As	ssembler		Designato	ors	E	piration Date	
Assembler			UV		05	/21/2024	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 2 Media - Test: Air, Set Pressure Def Blowdown Chara Flow Area Config Designed by: Em	Ive] Kunkle 541-C/54 Sec. UV at unknown I ishing Relieving Cap 2.000 SCFM/PSIA /Gas; Certified: Air, G finition: Pop Interistics: Fixed Juration: Nozzle/Full I Interson Automation Sc	42-C/548-C (.4 ab on May 20, acity: Flow Ca Gas Lift Diutions Final C	22 Orifice) 1988 pacity, Slope Control US LP {AGC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	Side NPS	0.14 in ²	0.422 in	0.2 in	15-400 psi	Air	UV
Design Name	: Kunkle 548	3-A (.295 O	rifice)	NBCert #	# 36290		
Manufacturer/As	ssembler		Designato	ors	E	piration Date	
Assembler			UV		05	/21/2024	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Air Set Pressure Def Blowdown Chara Flow Area Config Designed by: Em	Ive] Kunkle 548-A (.2 Sec. UV at unknown I ishing Relieving Cap .000 SCFM/PSIA /Gas; Certified: Air, G finition: Pop .cteristics: Fixed juration: Nozzle/Full lerson Automation Sc	295 Orifice) ab on May 20, acity: Flow Ca Gas Lift Diutions Final C	1988 pacity, Slope Control US LP {AGC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.25-0.375 NPS	Side NPS	0.068 in²	0.295 in	0.126 in	15-400 psi	Air	UV
Design Name	e: Kunkle 600)0, 6252 Se	eries	NBCert #	# 36324		
Manufacturer/As	ssembler		Designato	ors	E	piration Date	
Assembler			UV, V		05	/21/2024	
Design Type [Safety Valve] Ku Capacity Tests: S Method of Establ Certified Value: 0 Media - Test: Ste Set Pressure Def Blowdown Chara Flow Area Config Designed by: Em	unkle 6000, 6252 Se Sec. UV, V at unknow ishing Relieving Cap 0.878 Unitless eam; Certified: Air, Ga finition: Pop Icteristics: Adjustable juration: Nozzle/Full I iterson Automation So	ries m lab on March acity: Flow Ca as, Steam (Dual Ring) Lift Dutions Final C	n 24, 1982 pacity, K Control US LP {AGC}				

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Air	UV
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	V
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Air	UV
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	V
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Air	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	V
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in²	[G] 0.84 in	0.2 in	15-300 psi	Air	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in²	[G] 0.84 in	0.2 in	15-300 psi	Steam	V
1.25-1.5 NPS	1.5, 2 NPS	0.554 in²	[G] 0.84 in	0.2 in	15-300 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Air	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	V
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in²	[J] 1.342 in	0.32 in	15-300 psi	Air	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in²	[J] 1.342 in	0.32 in	15-300 psi	Steam	V
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in²	[J] 1.342 in	0.32 in	15-300 psi	Steam	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Air	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	V
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Air	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	V
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Air	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	V
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Air	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	V
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Air	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	V
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Air	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	V
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Air	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	V
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	UV

Design Nam	e: Kunkle 91	0 to 919		NBCert	# 36100		
Manufacturer/A	Assembler		Designat	ors	E	xpiration Date	1
Assembler			UV		08	8/07/2024	
Design Type							
[Safety Relief Va Capacity Tests: Method of Estat Certified Value: Media - Test: St Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	alve] Kunkle 910 to 9 Sec. UV at unknown blishing Relieving Ca 0.878 Unitless team; Certified: Air, C efinition: Pop acteristics: Fixed iguration: Nozzle/Full merson Automation S	919 Iab on May 19 pacity: Flow Ca Gas, Steam Lift Solutions Final 9	, 1969 apacity, K Control US LP {AGC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Steam	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Air	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Steam	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Air	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Steam	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Air	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Steam	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Air	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Steam	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Air	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	UV
Design Nam	e: Kunkle 91 and 929 (\$ Assembler	0 to 919 (S Sect. I Liqui	ect. VIII Liquid), 9 id) Designat	928 NBCert ors	# 36111	xpiration Date	,
Assembler					01	8/07/2024	
		_	0V, V			5/01/2024	
[Relief Valve] K Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	unkle 910 to 919 (Se Sec. UV, V at unknow olishing Relieving Ca 0.710 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full merson Automation S	ect. VIII Liquid), wn lab on May pacity: Flow Ca : Liquid Stream Lift Solutions Final 9	928 and 929 (Sect. I L 8, 1985 apacity, K Control US LP {AGC}	_iquid)			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator

Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator
0.5-1 NPS	.75 , 1 NPS	0.1213 in ²	[D] 0.393 in	0.126 in	15-1400 psi	Water	UV, V
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.168 in	15-1000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.21 in	15-700 psi	Water	UV, V
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.268 in	15-600 psi	Water	UV, V

1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.336 in	15-500 psi	Water	UV, V			
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.429 in	15-500 psi	Water	UV, V			
Design Name	e: Kunkle 92(water)), 921, 927	, Agco A (High Te	^{emp.} NBCert i	# 36098 -					
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date				
Assembler			V		30	3/07/2024				
Design Type										
[Safety Valve] Kunkle 920, 921, 927, Agco A (High Temp. water) Capacity Tests: Sec. V at unknown lab on May 19, 1969 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Steam	V			
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Steam	V			
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Steam	V			
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Steam	V			
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Steam	V			

LCM Industries, Inc. (LCL)

Longview, TX 75604United States

This Company Manufactures or Assembles:

Design Name	e: 2600 & 26	00S		NBCert	# 5705	57			
Manufacturer/Assembler Designators Expiration Date									
Assembler			UV	V 05/10/2025					
Design Type									
[Safety Relief Valve] 2600 & 2600S Capacity Tests: Sec. UV at Ohio State University (Robinson Laboratory) on June 11, 1972 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-10000 psi	Air	UV		
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV		

1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-2900 psi	Steam	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-5000 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-2900 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV
10 NPS	14 NPS	49.4 in²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Air	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Air	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Steam	UV
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV
20 NPS	24 NPS	176.7 in²	[Z] 15 in	4.5 in	15-750 psi	Air	UV
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV

Design Nam	e: 2600L (Lic	quids)		NBCert	# 57068		
Manufacturer/A	Assembler		Designat	ors	E	xpiration Date	•
Assembler			UV		0	5/10/2025	
Design Type [Relief Valve] 2 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Confi Designed by: Fa	600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless /ater/Liquid; Certified efinition: First Steady acteristics: Fixed iguration: Nozzle/Full arris Engineering {TF	al Board Testin pacity: Flow Ca : Liquid Stream Lift O}	g Lab (Picaway) on Ja apacity, K	nuary 29, 1985			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Water	UV, V
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-6000 psi	Water	UV, V
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.206 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.326 in	15-3600 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.407 in	15-2750 psi	Water	UV, V
2-3 NPS	2 - 4 NPS	1.43 in ²	[J] 1.35 in	0.521 in	15-2700 psi	Water	UV, V
3 NPS	4, 6 NPS	2.041 in ²	[K] 1.612 in	0.622 in	15-2200 psi	Water	UV, V
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.775 in	15-1500 psi	Water	UV, V
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.871 in	15-1100 psi	Water	UV, V
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.957 in	15-1000 psi	Water	UV, V
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.16 in	15-1000 psi	Water	UV, V
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.525 in	15-900 psi	Water	UV, V
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.837 in	15-600 psi	Water	UV, V
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.339 in	15-300 psi	Water	UV, V
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.47 in	15-300 psi	Water	UV, V
Design Nam	e: 2700, 270	0S, 3700, 3	3700S	NBCert	# 57237	,	
Manufacturer/A	Assembler		Designate	ors	E	xpiration Date)
Assembler			UV		0	5/10/2025	
Design Type [Safety Relief V: Capacity Tests: Method of Estat Certified Value: Media - Test: A Set Pressure De Blowdown Char Flow Area Confi Designed by: Fa	alve] 2700, 2700S, 3 Sec. UV at Farris En blishing Relieving Ca 0.878 Unitless ir/Gas, Steam; Certifi efinition: Pop racteristics: Fixed iguration: Nozzle/Full arris Engineering {TF	9700, 3700S gineering on S pacity: Flow Ca ed: Air, Gas, Si Lift O}	eptember 14, 1994 apacity, K team				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator

0.5-1 NPS

.75, 1 NPS

0.038 in²

[B] 0.22 in

0.05 in

15-16000 psi

Air

UV

0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Air	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-2900 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-10000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-2900 psi	Steam	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Air	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-2900 psi	Steam	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Air	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Air	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-2900 psi	Steam	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Air	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-2900 psi	Steam	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-2900 psi	Steam	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Air	UV

Design Name: 2700L, 3700L (Liquids

NBCert #

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/10/2025

Design Type

[Relief Valve] 2700L, 3700L (Liquids)

Capacity Tests: Sec. UV at Farris Engineering on September 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.676 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Water	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Water	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.089 in	15-10000 psi	Water	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Water	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Water	UV
1.5 NPS	2, 2.5 NPS	0.35 in²	[F] 0.668 in	0.167 in	15-7000 psi	Water	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Water	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Water	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Water	UV

Design Name: 3800	NBCert # 570	24
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/10/2025
Design Type		

[Pilot Operated Pressure Relief Valve] 3800 Capacity Tests: Sec. UV at TELEDYNE FARRIS ENGR on May 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.859 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Air	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-1050 psi	Steam	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Air	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-1050 psi	Steam	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Air	UV
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-1050 psi	Steam	UV
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Air	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-1050 psi	Steam	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Air	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-1050 psi	Steam	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Air	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-1050 psi	Steam	UV

8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Air	UV
Design Name: 3800FP NBCert # 57035							
Manufacturer/A	ssembler		Designato	ors	E>	piration Date	
Assembler			UV		05	/10/2025	
Design Type							
[Pilot Operated Pressure Relief Valve] 3800FP Capacity Tests: Sec. UV at Farris Engineering on April 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2, 3 NPS	0.719 in²	[A] 0.957 in	0.354 in	15-10000 psi	Air	UV
1 NPS	2, 3 NPS	0.719 in ²	[A] 0.957 in	0.354 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-7000 psi	Air	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-1050 psi	Steam	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-7000 psi	Air	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-1050 psi	Steam	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-5000 psi	Air	UV
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-1050 psi	Steam	UV
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-4000 psi	Air	UV
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-2000 psi	Air	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-1050 psi	Steam	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-2000 psi	Air	UV
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1400 psi	Air	UV
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1050 psi	Steam	UV
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Air	UV
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Steam	UV

Design Name: 3800L, PCL, PCM pilot

Cert # 5

 Manufacturer/Assembler
 Designators
 Expiration Date

 Assembler
 UV
 05/10/2025

[Pilot Operated Pressure Relief Valve] 3800L, PCL, PCM pilots Capacity Tests: Sec. UV at Farris Engineering on February 4, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.782 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition(1): Pop; (3): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-10000 psi	Water	UV
1.5-2 NPS	2,3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Water	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Water	UV
3 NPS	4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Water	UV
3-4 NPS	4,6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Water	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Water	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Water	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Water	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Water	UV
8 NPS	10 NPS	28.94 in²	[T] 6.07 in	2.246 in	15-2000 psi	Water	UV

LCM Industries, Inc. (LCM)

Odessa, TX 79763United States

This Company Manufactures or Assembles:

Design Name: 2600 & 2600S	NBCert # 5	7057
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/07/2024
Design Type [Safety Relief Valve] 2600 & 2600S Capacity Tests: Sec. UV at Ohio State University (Robinson La Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering (TEO)	boratory) on June 11, 1972	

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.172 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in²	[G] 0.844 in	0.253 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in²	[H] 1.054 in	0.316 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-2900 psi	Steam	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-5000 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-2900 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV
6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV
6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV
12 NPS	16 NPS	63.62 in²	[W] 9 in	2.7 in	15-1000 psi	Air	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV
16 NPS	18 NPS	104 in ²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV
16 NPS	18 NPS	104 in ²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Air	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Steam	UV
18 NPS	24 NPS	143.1 in ²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV

18 NPS	24 NPS	143.1 in ²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV	
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Air	UV	
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV	
Design Name	e: 2600L (Liq	uids)		NBCert #	¥ 57068			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Assembler			UV		05.	/22/2025		
Design Type								
[Relief Valve] 2600L (Liquids) Capacity Tests: Sec. UV, V at National Board Testing Lab (Picaway) on January 29, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.652 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Water	UV, V	
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-6000 psi	Water	UV, V	
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-5000 psi	Water	UV, V	
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.326 in	15-3600 psi	Water	UV, V	
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.407 in	15-2750 psi	Water	UV, V	
2-3 NPS	2 - 4 NPS	1.43 in ²	[J] 1.35 in	0.521 in	15-2700 psi	Water	UV, V	
3 NPS	4, 6 NPS	2.041 in ²	[K] 1.612 in	0.622 in	15-2200 psi	Water	UV, V	
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.775 in	15-1500 psi	Water	UV, V	
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.871 in	15-1100 psi	Water	UV, V	
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.957 in	15-1000 psi	Water	UV, V	
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.16 in	15-1000 psi	Water	UV, V	
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.525 in	15-900 psi	Water	UV, V	
6-8 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.837 in	15-600 psi	Water	UV, V	
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	2.339 in	15-300 psi	Water	UV, V	
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.47 in	15-300 psi	Water	UV, V	
Design Name	e: 2700, 2700)S, 3700, 3	700S	NBCert #	# 57237			

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/07/2024

Design Type

[Safety Relief Valve] 2700, 2700S, 3700, 3700S Capacity Tests: Sec. UV at Farris Engineering on September 14, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Air	UV	
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-2900 psi	Steam	UV	
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Air	UV	
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-2900 psi	Steam	UV	
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-10000 psi	Air	UV	
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-2900 psi	Steam	UV	
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Air	UV	
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-2900 psi	Steam	UV	
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Air	UV	
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Air	UV	
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Air	UV	
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-2900 psi	Steam	UV	
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV	
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-2900 psi	Steam	UV	
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Air	UV	
Design Name: 2700L, 3700L (Liquids) NBCert # 57248								
Design Name	e: 2700L, 370	0L (Liquids)	5)	NBCert #	\$57248			
Design Name Manufacturer/A	e: 2700L, 370 ssembler	00L (Liquid:	S) Designato	NBCert # rs	ŧ 57248 Ех	piration Date	_	
Design Name Manufacturer/A Assembler	e: 2700L, 370 ssembler	00L (Liquids	5) Designato UV	NBCert # rs	£ 57248 Ex 09/	piration Date /07/2024		
Design Name Manufacturer/A Assembler Design Type	e: 2700L, 370 ssembler	00L (Liquids	S) Designato UV	NBCert #	± 57248 Ex 09/	piration Date /07/2024		
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fai	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady S acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC	yineering on Se pacity: Flow Ca Liquid Stream Lift D}	Designato UV optember 20, 1994 pacity, K	NBCert #	£ 57248 Ex 09/	piration Date		
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Wa Set Pressure Der Blowdown Chara Flow Area Config Designed by: Fai	e: 2700L, 370 ssembler 700L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady S acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size	pineering on Se pacity: Flow Ca Liquid Stream Lift D} Flow Area	Designato UV optember 20, 1994 pacity, K Orifice [designator] dia.	NBCert #	4 57248 Ex 09/ Set Pressure Range	piration Date /07/2024 Media	Designator	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fai Inlet Size 0.5-1 NPS	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady S acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS	pineering on Se pacity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ²	Designato UV optember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in	NBCert # rs Lift 0.05 in	4 57248 Ex 09/ Set Pressure Range 15-16000 psi	piration Date 07/2024 Media Water	Designator	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fai Inlet Size 0.5-1 NPS 0.5-1.5 NPS	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady s acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75 - 2 NPS	pineering on Se bacity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ² 0.068 in ²	Designato UV optember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in [C] 0.295 in	NBCert # rs Lift 0.05 in 0.074 in	4 57248 Ex 09/ Set Pressure Range 15-16000 psi	piration Date /07/2024 Media Water Water	Designator UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fai Inlet Size 0.5-1 NPS 0.5-1.5 NPS	e: 2700L, 370 ssembler 700L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap).676 Unitless ater/Liquid; Certified: finition: First Steady S acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 2 NPS .75, 1 NPS	pineering on Se acity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ² 0.068 in ² 0.098 in ²	Designato UV uv eptember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in [C] 0.295 in [1] 0.358 in	NBCert # rs Lift 0.05 in 0.074 in 0.089 in	 57248 Ex 09/ 30/ Set Pressure 15-16000 psi 15-10000 psi 15-10000 psi 	piration Date /07/2024 //////////////////////////////////	Designator UV UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value] 0 Media - Test: Wa Set Pressure Der Blowdown Chara Flow Area Config Designed by: Fai 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS	e: 2700L, 370 ssembler 700L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap).676 Unitless ater/Liquid; Certified: finition: First Steady S acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75 - 2 NPS .75, 1 NPS 1 - 2 NPS	pineering on Se bacity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.125 in ²	 Designato UV Optember 20, 1994 pacity, K Crifice [designator] dia. [B] 0.22 in [C] 0.295 in [1] 0.358 in [D] 0.4 in 	NBCert # rs Lift 0.05 in 0.074 in 0.089 in 0.1 in	4 57248 Ex 09/ 7 8 8 15-1000 psi 15-10000 psi 15-10000 psi 15-10000 psi	piration Date '07/2024 '07/200 '07/200 '07/200 '07/200 '07/200 '07/200 '07/200 '07/200 '07/200 '07/200	Designator UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fai 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1 NPS	e: 2700L, 370 ssembler 700L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady S acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 2 NPS .75, 1 NPS 1 - 2 NPS 1.5, 2 NPS	pineering on Se bacity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.125 in ² 0.223 in ²	 Designato UV Optember 20, 1994 pacity, K Orifice [designator] dia. [B] 0.22 in [C] 0.295 in [1] 0.358 in [D] 0.4 in [E] 0.533 in 	NBCert # rs Lift 0.05 in 0.074 in 0.089 in 0.1 in 0.134 in	 57248 Ex 09/ 709/ 10000 15-10000 15-10000	piration Date 07/2024 Media Water Water Water Water Water Water	Designator UV UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fai 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1.5 NPS	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap 0.676 Unitless ater/Liquid; Certified: finition: First Steady S acteristics: Fixed guration: Nozzle/Full prris Engineering {TFC Outlet Size .75, 1 NPS .75, 2 NPS .75, 1 NPS 1 - 2 NPS 1.5, 2 NPS 2, 2.5 NPS	pineering on Se acity: Flow Ca Liquid Stream Lift) Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.125 in ² 0.223 in ² 0.35 in ²	 Designato UV UV Pptember 20, 1994 pacity, K Crifice [designator] dia. [B] 0.22 in [C] 0.295 in [1] 0.358 in [D] 0.4 in [E] 0.533 in [F] 0.668 in 	NBCert # rs Lift 0.05 in 0.074 in 0.089 in 0.1 in 0.134 in 0.167 in	 57248 Ex 09/ 79/ 79/	piration Date 207/2024 Media Water Water Water Water Water Water Water	Designator UV UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value: O Media - Test: Wa Set Pressure Der Blowdown Chara Flow Area Config Designed by: Fai O.5-1 NPS 0.5-1.5 NPS 0.5-2 NPS 1.5 NPS 1.5-2 NPS	e: 2700L, 370 ssembler 200L, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap).676 Unitless ater/Liquid; Certified: finition: First Steady S acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 2 NPS .75, 1 NPS 1.5, 2 NPS 1.5, 2 NPS 2, 2.5 NPS 2, 3 NPS	DOL (Liquids pineering on Se acity: Flow Ca Liquid Stream Lift D} Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.125 in ² 0.223 in ² 0.35 in ²	 Designato UV UV Pptember 20, 1994 pacity, K Crifice [designator] dia. [B] 0.22 in [C] 0.295 in [C] 0.358 in [D] 0.4 in [E] 0.533 in [F] 0.668 in [G] 0.855 in 	NBCert # rs Lift 0.05 in 0.074 in 0.089 in 0.134 in 0.134 in 0.135 in	 57248 Ex 09/ 709/ 709/ 709/ 709/ 709/ 7000 psi 75-10000 psi 75-10000 psi 75-10000 psi 75-7000 psi 75-7000 psi 75-7000 psi 75-7000 psi 	piration Date 07/2024 Media Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 27 Capacity Tests: S Method of Establ Certified Value] 27 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Fai 0.541 NPS 0.5-1 NPS 0.5-1 NPS 0.5-2 NPS 1.5 NPS 1.5-2 NPS 2 NPS	e: 2700L, 370 ssembler COOL, 3700L (Liquids) Sec. UV at Farris Eng lishing Relieving Cap).676 Unitless ater/Liquid; Certified: finition: First Steady 3 acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC Outlet Size .75, 1 NPS .75, 2 NPS .75, 1 NPS 1 - 2 NPS 1.5, 2 NPS 2, 2.5 NPS 2, 3 NPS 3 NPS	DoL (Liquids pineering on Sepacity: Flow Ca Liquid Stream Lift D) Flow Area 0.038 in ² 0.068 in ² 0.098 in ² 0.223 in ² 0.35 in ² 0.573 in ² 0.898 in ²	 Designato UV UV Pptember 20, 1994 pacity, K Igl 0.22 in Igl 0.22 in Igl 0.358 in Igl 0.533 in Igl 0.668 in Igl 0.855 in Igl 0.855 in Igl 1.069 in 	NBCert # rs Lift 0.05 in 0.074 in 0.089 in 0.134 in 0.134 in 0.167 in 0.215 in 0.268 in	 57248 Ex 09/ 709/ 709/ 709/ 709/ 709/ 7000 psi 75-10000 psi 75-100000 psi 75-10000 psi	piration Date '07/2024 '07/2024 'Vater Water Water Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV	

Design Name: 3800	NBCert # 570	24
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/07/2024
Design Type		

[Pilot Operated Pressure Relief Valve] 3800 Capacity Tests: Sec. UV at TELEDYNE FARRIS ENGR on May 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.859 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.371 in ²	[F] 0.687 in	0.254 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Air	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-1050 psi	Steam	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Air	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-1050 psi	Steam	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Air	UV
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-1050 psi	Steam	UV
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Air	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-1050 psi	Steam	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Air	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-1050 psi	Steam	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Air	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-1050 psi	Steam	UV

8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Air	UV		
Design Name: 3800FP NBCert # 57035									
Manufacturer/A	ssembler		Designato	rs	Ex	piration Date			
Assembler			UV		01	/14/2025			
Design Type									
[Pilot Operated Pressure Relief Valve] 3800FP Capacity Tests: Sec. UV at Farris Engineering on April 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1 NPS	2, 3 NPS	0.719 in²	[A] 0.957 in	0.354 in	15-10000 psi	Air	UV		
1 NPS	2, 3 NPS	0.719 in ²	[A] 0.957 in	0.354 in	15-1050 psi	Steam	UV		
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-1050 psi	Steam	UV		
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-7000 psi	Air	UV		
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-1050 psi	Steam	UV		
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-7000 psi	Air	UV		
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-1050 psi	Steam	UV		
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-5000 psi	Air	UV		
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-1050 psi	Steam	UV		
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-4000 psi	Air	UV		
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-1050 psi	Steam	UV		
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-2000 psi	Air	UV		
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-1050 psi	Steam	UV		
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-2000 psi	Air	UV		
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1400 psi	Air	UV		
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1050 psi	Steam	UV		
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Air	UV		
12 NPS	16 NPS	109.5 in ²	[12] 11.81 in	4.37 in	15-800 psi	Steam	UV		

Design Name: 3800L, PCL, PCM pilots

Cert # 5

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/07/2024

[Pilot Operated Pressure Relief Valve] 3800L, PCL, PCM pilots Capacity Tests: Sec. UV at Farris Engineering on February 4, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.782 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition(1): Pop; (3): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.371 in²	[F] 0.687 in	0.254 in	15-10000 psi	Water	UV
1.5-2 NPS	2,3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Water	UV
1.5-2 NPS	2, 3 NPS	0.873 in ²	[H] 1.054 in	0.39 in	15-7000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Water	UV
3 NPS	4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Water	UV
3-4 NPS	4,6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Water	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Water	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Water	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Water	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Water	UV
8 NPS	10 NPS	28.94 in²	[T] 6.07 in	2.246 in	15-2000 psi	Water	UV

LESER GmbH & Co. KG (LES)

Hohenwestedt, 24594Germany

This Company Manufactures or Assembles:

Design Name: 526FB		NBCert #	37314	4
Manufacturer/Assembler	Designators		E	Expiration Date
Manufacturer	UV		(09/18/2026
Design Type [Safety Relief Valve] 526FB Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on Septem Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - ; Certified: Air, Gas Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}	ıber 5, 2014			

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 in	2, 3 in	0.239 in²	[E] 0.551 in	0.138 in	15-7758 psi	Air	UV
1.5-2 in	3 in	0.616 in ²	[G] 0.616 in	0.268 in	15-3705 psi	Air	UV
1.5 in	2, 3 in	0.394 in ²	[F] 0.709 in	0.216 in	15-9210 psi	Air	UV
1.5-2 in	3 in	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Air	UV
2-3 in	3, 4 in	1.578 in²	[J] 1.417 in	0.453 in	15-2700 psi	Air	UV
3 in	4, 6 in	2.251 in ²	[K] 1.693 in	0.531 in	15-2220 psi	Air	UV
3-4 in	4, 6 in	3.484 in ²	[L] 2.106 in	0.669 in	15-1500 psi	Air	UV
4 in	6 in	4.426 in ²	[M] 2.374 in	0.846 in	15-1100 psi	Air	UV
4 in	6 in	5.302 in ²	[N] 2.598 in	0.826 in	15-2760 psi	Air	UV
4 in	6 in	7.79 in²	[P] 3.15 in	1.035 in	15-1000 psi	Air	UV
6 in	8 in	13.548 in ²	[Q] 4.154 in	1.248 in	15-914 psi	Air	UV
6 in	8, 10 in	19.325 in ²	[R] 4.961 in	1.496 in	15-522 psi	Air	UV
6 in	10 in	31.749 in ²	[T] 6.358 in	1.929 in	15-522 psi	Air	UV
Design Name: 526FB (Liquid) NBCert # 37303							
Manufacturer/A	ssembler		Designato	ors	E	cpiration Date	
Manufacturer			UV		09	/18/2026	
Design Type							
Design Type							
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	alve] 526FB (Liquid) Sec. UV at Leser Gm lishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES}	on April 14, 2014 pacity, K				
Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	alve] 526FB (Liquid) Sec. UV at Leser Gm Jishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: ateristics: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area	on April 14, 2014 ipacity, K Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Jesign Type [Safety Relief Valactive Tests: S Method of Estable Certified Value: 0 Media - Test: W Set Pressure Destable Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 in	Alve] 526FB (Liquid) Sec. UV at Leser Gm Jishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ²	on April 14, 2014 pacity, K Orifice [designator] dia. [E] 0.551 in	Lift 0.138 in	Set Pressure Range 15-7758 psi	Media Water	Designator
Jesign Type [Safety Relief Value: Capacity Tests: 3 Method of Estab Certified Value: C Media - Test: W Set Pressure Dest Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 in 1.5 in	alve] 526FB (Liquid) Sec. UV at Leser Gm dishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ²	on April 14, 2014 pacity, K Orifice [designator] dia. [E] 0.551 in [F] 0.709 in	Lift 0.138 in 0.217 in	Set Pressure Range 15-7758 psi 15-9210 psi	Media Water Water	Designator UV UV
Jesign Type [Safety Relief Value: Capacity Tests: 3 Method of Estab Certified Value: C Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 in 1.5 in 1.5-2 in	alve] 526FB (Liquid) Sec. UV at Leser Gm dishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ²	on April 14, 2014 pacity, K Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in	Lift 0.138 in 0.217 in 0.267 in	Set Pressure Range Comparison 15-7758 psi 15-9210 psi 15-3705 psi 15-3705 psi	Media Water Water Water	Designator UV UV UV
Design Type[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LEInlet Size1-1.5 in1.5 in1.5-2 in1.5-2 in	Alve] 526FB (Liquid) Sec. UV at Leser Gm dishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: ateristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in 3 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [H] 1.114 in	Lift 0.138 in 0.217 in 0.267 in 0.323 in	Set Pressure Range Image: Control of the sector of the secto	Media Water Water Water Water	Designator UV UV UV UV
Jesign Type [Safety Relief Value: Capacity Tests: S Method of Estable Certified Value: C Media - Test: W Set Pressure Destable Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1.5 in 1.5-2 in 1.5-2 in 2-3 in	Alve] 526FB (Liquid) Sec. UV at Leser Gm Jishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in 3 in 3, 4 in	bh & Co., KG o bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [H] 1.114 in [J] 1.417 in	Lift 0.138 in 0.217 in 0.267 in 0.323 in 0.453 in	Set Pressure Range 15-7758 psi 15-9210 psi 15-3705 psi 15-2750 psi 15-2700 psi	Media Water Water Water Water Water Water	Designator UV UV UV UV UV UV
Jesign Type [Safety Relief Value: Capacity Tests: 3 Method of Estable Certified Value: C Media - Test: W Set Pressure Dest Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1.5 in 1.5-2 in 1.5-2 in 2-3 in 3 in	Alve] 526FB (Liquid) Sec. UV at Leser Gm Jishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in 3 in 3, 4 in 4, 6 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ²	on April 14, 2014 pacity, K Crifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [G] 0.886 in [H] 1.114 in [J] 1.417 in [K] 1.693 in	Lift 0.138 in 0.217 in 0.267 in 0.323 in 0.453 in 0.531 in	Set Pressure 15-7758 psi 15-9210 psi 15-3705 psi 15-2750 psi 15-2700 psi 15-2220 psi	Media Water Water Water Water Water Water Water	Designator UV
Jesign Type [Safety Relief Value: Capacity Tests: S Method of Estable Certified Value: C Media - Test: W Set Pressure Dest Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 in 1.5 in 1.5-2 in 2-3 in 3 in 3-4 in	Alve] 526FB (Liquid) Sec. UV at Leser Gm lishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: ofinition: First Steady guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in 3 in 3, 4 in 4, 6 in 4, 6 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ²	Orifice [designator] dia. [E] 0.551 in [E] 0.709 in [G] 0.886 in [H] 1.114 in [J] 1.417 in [J] 1.417 in [L] 2.106 in	Lift 0.138 in 0.217 in 0.267 in 0.323 in 0.453 in 0.531 in 0.669 in	Set Pressure Range 15-7758 psi 15-9210 psi 15-3705 psi 15-2750 psi 15-2750 psi 15-2700 psi 15-2220 psi 15-1500 psi	Media Water Water Water Water Water Water Water Water	Designator UV
Jesign Type [Safety Relief Value: Capacity Tests: S Method of Estable Certified Value: C Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1.5 in 1.5-2 in 2-3 in 3 in 3-4 in 4 in	Alve] 526FB (Liquid) Sec. UV at Leser Gm Jishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: ifinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in 3 in 3, 4 in 4, 6 in 6 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ²	Orifice [designator] dia. [E] 0.551 in [E] 0.709 in [G] 1.417 in [J] 1.417 in [J] 1.2106 in [K] 2.374 in	Lift 0.138 in 0.217 in 0.267 in 0.323 in 0.453 in 0.453 in 0.531 in 0.669 in 0.846 in	Set Pressure Set Pressure 15-7758 psi 15-9210 psi 15-3705 psi 15-2750 psi 15-2700 psi 15-220 psi 15-1500 psi 15-1500 psi	Media Water Water Water Water Water Water Water Water Water	Designator UV
Jesign Type [Safety Relief Value: Capacity Tests: S Method of Estable Certified Value: C Media - Test: W Set Pressure Desting Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1.5 in 1.5-2 in 2-3 in 3 in 3-4 in 4 in	Alve] 526FB (Liquid) Sec. UV at Leser Gm Jishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: ateristics: Fixed guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in 3 in 3, 4 in 4, 6 in 6 in 6 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ² 5.302 in ²	on April 14, 2014 pacity, K Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [G] 0.886 in [J] 1.417 in [J] 1.417 in [J] 1.417 in [J] 1.417 in [J] 1.2106 in [L] 2.106 in	Lift 0.138 in 0.217 in 0.267 in 0.323 in 0.453 in 0.453 in 0.669 in 0.669 in 0.846 in 0.827 in	Set Pressure Range 15-7758 psi 15-9210 psi 15-3705 psi 15-2750 psi 15-2700 psi 15-220 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-2760 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV
Design Type[Safety Relief Value: Capacity Tests: S Method of Estable Certified Value: C Media - Test: W Set Pressure Designed by: LEInlet Size1-1.5 in1.5 in1.5-2 in2-3 in3 in3-4 in4 in4 in4 in	Alve] 526FB (Liquid) Sec. UV at Leser Gm Jishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in 3 in 3, 4 in 4, 6 in 4, 6 in 6 in 6 in 6 in	bh & Co., KG o bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ² 5.302 in ²	Orifice [designator] dia. [E] 0.551 in [F] 0.709 in [G] 0.886 in [J] 1.417 in [J] 1.417 in [J] 1.2106 in [L] 2.106 in [M] 2.374 in [M] 3.15 in	Lift 0.138 in 0.217 in 0.267 in 0.323 in 0.453 in 0.453 in 0.531 in 0.669 in 0.846 in 0.827 in 1.035 in	Set Pressure 15-7758 psi 15-7758 psi 15-9210 psi 15-3705 psi 15-2750 psi 15-2700 psi 15-2200 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1100 psi 15-2760 psi 15-2760 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV UV
Jesign Type [Safety Relief Value: Capacity Tests: S Method of Estable Certified Value: C Media - Test: W Set Pressure Desting Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1-1.5 in 1.5 in 1.5-2 in 2-3 in 3 in 3-4 in 4 in 4 in 6 in	Alve] 526FB (Liquid) Sec. UV at Leser Gm lishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: ofinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in 3 in 3, 4 in 4, 6 in 4, 6 in 6 in 6 in 6 in 8 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ² 5.302 in ² 7.79 in ² 13.548 in ²	Orifice [designator] dia. [E] 0.551 in [E] 0.709 in [G] 0.886 in [H] 1.114 in [J] 1.417 in [L] 2.106 in [L] 2.374 in [N] 2.398 in [N] 2.406 in	Lift 0.138 in 0.217 in 0.267 in 0.323 in 0.453 in 0.453 in 0.669 in 0.846 in 0.846 in 0.827 in 1.035 in 1.248 in	Set Pressure Range 15-7758 psi 15-7758 psi 15-9210 psi 15-3705 psi 15-2750 psi 15-2700 psi 15-2700 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1000 psi 15-2760 psi 15-2760 psi 15-2760 psi 15-1000 psi 15-1000 psi 15-914 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV
Jesign Type [Safety Relief Value: Capacity Tests: Some contribution of Estable Certified Value: Capacity Tests: Some contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: Tests: We set Pressure contribution of Estable Certified Value: Capacity Tests: Test:	Alve] 526FB (Liquid) Sec. UV at Leser Gm dishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: ateristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 2, 3 in 2, 3 in 3 in 3 in 3 in 3, 4 in 4, 6 in 6 in 6 in 6 in 8 in 8,10 in	bh & Co., KG bacity: Flow Ca Liquid Stream Lift G {LES} Flow Area 0.239 in ² 0.394 in ² 0.616 in ² 0.975 in ² 1.578 in ² 2.251 in ² 3.484 in ² 4.426 in ² 5.302 in ² 13.548 in ² 19.325 in ²	Orifice [designator] dia. [E] 0.551 in [E] 0.709 in [G] 0.886 in [H] 1.114 in [J] 1.417 in [J] 1.2106 in [H] 2.374 in [N] 2.598 in [N] 3.15 in [Q] 4.154 in [Q] 4.961 in	Lift 0.138 in 0.217 in 0.267 in 0.323 in 0.453 in 0.453 in 0.531 in 0.669 in 0.846 in 0.846 in 1.035 in 1.248 in 1.248 in	Set Pressure 15-7758 psi 15-7758 psi 15-9210 psi 15-3705 psi 15-2750 psi 15-2750 psi 15-2700 psi 15-2700 psi 15-2700 psi 15-1000 psi 15-2760 psi 15-2760 psi 15-2760 psi 15-1000 psi 15-914 psi 15-522 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV

Design Name: 810/820 (811/821)				NBCe	rt # 3728	30				
Manufacturer	/Assembler		Designat	Designators			Expiration Date			
Manufacturer			UV			11/11/2026				
Design Type	Design Type									
[Pilot Operated Capacity Tests Method of Esta Certified Value Media - Test: / Set Pressure I Blowdown Cha Flow Area Cor Designed by: I	[Pilot Operated Pressure Relief Valve] 810/820 (811/821) Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on October 31, 2009 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.820 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1.5 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.394 in	15-10000 psi	Air	UV			
1.5 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.394 in	15-740 psi	Steam	UV			
		0.147 in^2	[D] 0 433 mm	0.315 in	15 10000 pei	Air				

1-1 NPS	2 NPS	0.147 in ²	[D] 0.433 mm	0.315 in	15-10000 psi	Air	UV
1-1 NPS	2 NPS	0.147 in ²	[D] 0.433 mm	0.315 in	15-740 psi	Steam	UV
1 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.315 in	15-10000 psi	Air	UV
1 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.315 in	15-740 psi	Steam	UV
1.5 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.394 in	15-10000 psi	Air	UV
1.5 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.394 in	15-740 psi	Steam	UV
1 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.315 in	15-10000 psi	Air	UV
1 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.315 in	15-740 psi	Steam	UV
1.5 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.394 in	15-10000 psi	Air	UV
1.5 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.394 in	15-740 psi	Steam	UV
1 NPS	2 NPS	0.644 in ²	[FB] 0.906 in	0.453 in	15-10000 psi	Air	UV
1 NPS	2 NPS	0.644 in ²	[FB] 0.906 in	0.453 in	15-740 psi	Steam	UV
1.5 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.472 in	15-10000 psi	Air	UV
1.5 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.472 in	15-740 psi	Steam	UV
2 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.591 in	15-10000 psi	Air	UV
2 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.591 in	15-740 psi	Steam	UV
1.5 NPS	2 NPS	1.024 in ²	[FB] 1.142 in	0.571 in	15-10000 psi	Air	UV
1.5 NPS	2 NPS	1.024 in ²	[FB] 1.142 in	0.571 in	15-740 psi	Steam	UV
1.5 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.472 in	15-10000 psi	Air	UV
1.5 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.472 in	15-740 psi	Steam	UV
2 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.591 in	15-10000 psi	Air	UV
2 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.591 in	15-740 psi	Steam	UV
1.5 NPS	3 NPS	1.552 in ²	[FB] 1.406 in	0.709 in	15-10000 psi	Air	UV
1.5 NPS	3 NPS	1.552 in ²	[FB] 1.406 in	0.709 in	15-740 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.758 in ²	[J] 1.496 in	0.591 in	15-10000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.758 in ²	[J] 1.496 in	0.591 in	15-740 psi	Steam	UV
3 NPS	4 NPS	2.465 in ²	[K] 1.772 in	0.866 in	15-3750 psi	Air	UV
3 NPS	4 NPS	2.465 in ²	[K] 1.772 in	0.866 in	15-740 psi	Steam	UV
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2 NPS	3 NPS	2.805 in ²	[FB] 1.89 in	0.866 in	15-10000 psi	Air	UV
2 NPS	3 NPS	2.805 in ²	[FB] 1.89 in	0.866 in	15-740 psi	Steam	UV
3 NPS	4 NPS	3.818 in ²	[L] 2.205 in	0.866 in	15-3750 psi	Air	UV
3 NPS	4 NPS	3.818 in ²	[L] 2.205 in	0.866 in	15-740 psi	Steam	UV
4 NPS	6 NPS	3.818 in ²	[L] 2.205 in	0.787 in	15-3750 psi	Air	UV
4 NPS	6 NPS	3.818 in ²	[L] 2.205 in	0.787 in	15-740 psi	Steam	UV
4 NPS	6 NPS	4.832 in ²	[M] 2.48 in	0.787 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.832 in ²	[M] 2.48 in	0.787 in	15-740 psi	Steam	UV
4 NPS	6 NPS	5.796 in ²	[N] 2.717 in	0.787 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.796 in ²	[N] 2.717 in	0.787 in	15-740 psi	Steam	UV
3 NPS	4 NPS	6.848 in ²	[FB] 2.953 in	1.339 in	15-3750 psi	Air	UV
3 NPS	4 NPS	6.848 in ²	[FB] 2.953 in	1.339 in	15-740 psi	Steam	UV
4 NPS	6 NPS	8.386 in ²	[P] 3.268 in	1.339 in	15-3750 psi	Air	UV
4 NPS	6 NPS	8.386 in ²	[P] 3.268 in	1.339 in	15-740 psi	Steam	UV
4 NPS	6 NPS	10.987 in²	[FB] 3.74 in	1.693 in	15-3750 psi	Air	UV
4 NPS	6 NPS	10.987 in²	[FB] 3.74 in	1.693 in	15-740 psi	Steam	UV
6 NPS	8 NPS	14.73 in²	[Q] 4.331 in	2.165 in	15-1500 psi	Air	UV
6 NPS	8 NPS	14.73 in ²	[Q] 4.331 in	2.165 in	15-740 psi	Steam	UV
6 NPS	8 NPS	21.534 in²	[R] 5.236 in	2.165 in	15-1500 psi	Air	UV
6 NPS	8 NPS	21.534 in ²	[R] 5.236 in	2.165 in	15-740 psi	Steam	UV
6 NPS	8 NPS	24.547 in ²	[FB] 5.591 in	2.559 in	15-1500 psi	Air	UV
6 NPS	8 NPS	24.547 in ²	[FB] 5.591 in	2.559 in	15-740 psi	Steam	UV
8 NPS	10 NPS	34.359 in ²	[T] 6.614 in	3.15 in	15-1500 psi	Air	UV
8 NPS	10 NPS	34.359 in ²	[T] 6.614 in	3.15 in	15-740 psi	Steam	UV
8 NPS	10 NPS	39.443 in²	[FB] 7.087 in	3.15 in	15-1500 psi	Air	UV
8 NPS	10 NPS	39.443 in ²	[FB] 7.087 in	3.15 in	15-740 psi	Steam	UV
Design Nar	ne: 820 (liquio	d) (821)		NBCert	# 37268		
Manufacturer/	Assembler		Designate	ors	E	xpiration Date	
Manufacturer			UV		11	1/11/2026	
Design Type							
[Pilot Operated Capacity Tests Method of Esta Certified Value Media - Test: \ Set Pressure D Blowdown Cha Flow Area Con Designed by: L	Pressure Relief Valva : Sec. UV at Leser Gra bilishing Relieving Ca : 0.689 Unitless Nater/Liquid; Certified Definition: First Steady rracteristics: Fixed figuration: Nozzle/Full .ESER GmbH & Co. k	e] 820 (liquid) nbh & Co., KG pacity: Flow Ca : Liquid v Stream I Lift (G {LES}	(821) on November 6, 2009 apacity, K				
Inlet Size			Orifice		Set Pressure		
	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator
1 NPS	Outlet Size 2 NPS	Flow Area 0.147 in ²	[designator] dia. [D] 0.433 in	Lift 0.315 in	Range	Wedia	UV

1 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.315 in	15-10000 psi	Water	UV
1.5 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.394 in	15-10000 psi	Water	UV
1 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.315 in	15-10000 psi	Water	UV
1.5 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.394 in	15-10000 psi	Water	UV
1 NPS	2 NPS	0.644 in ²	[FB] 0.906 in	0.453 in	15-10000 psi	Water	UV
1.5 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.472 in	15-10000 psi	Water	UV
2 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.591 in	15-10000 psi	Water	UV
1.5 NPS	2 NPS	1.142 in ²	[FB] 1.142 in	0.571 in	15-10000 psi	Water	UV
1.5 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.472 in	15-10000 psi	Water	UV
2 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.591 in	15-10000 psi	Water	UV
1.5 NPS	3 NPS	1.552 in ²	[FB] 1.406 in	0.709 in	15-10000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.758 in ²	[J] 1.496 in	0.591 in	15-10000 psi	Water	UV
3 NPS	4 NPS	2.465 in ²	[K] 1.772 in	0.866 in	15-3750 psi	Water	UV
2 NPS	3 NPS	2.805 in ²	[FB] 1.89 in	0.866 in	15-10000 psi	Water	UV
3 NPS	4 NPS	3.818 in ²	[L] 2.205 in	0.866 in	15-3750 psi	Water	UV
4 NPS	6 NPS	3.818 in ²	[L] 2.205 in	0.787 in	15-3750 psi	Water	UV
4 NPS	6 NPS	4.832 in ²	[M] 2.48 in	0.787 in	15-3750 psi	Water	UV
4 NPS	6 NPS	5.796 in ²	[N] 2.717 in	0.787 in	15-3750 psi	Water	UV
3 NPS	4 NPS	6.848 in ²	[FB] 2.953 in	1.339 in	15-3750 psi	Water	UV
4 NPS	6 NPS	8.386 in ²	[P] 3.268 in	1.339 in	15-3750 psi	Water	UV
4 NPS	6 NPS	10.987 in ²	[FB] 3.74 in	1.693 in	15-3750 psi	Water	UV
6 NPS	8 NPS	14.73 in ²	[Q] 4.331 in	2.165 in	15-1500 psi	Water	UV
6 NPS	8 NPS	21.534 in ²	[R] 5.236 in	2.165 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.547 in ²	[FB] 5.591 in	2.559 in	15-1500 psi	Water	UV
8 NPS	10 NPS	34.359 in ²	[T] 6.614 in	3.15 in	15-1500 psi	Water	UV
8 NPS	10 NPS	39.443 in ²	[FB] 7.087 in	3.15 in	15-1500 psi	Water	UV

LESER LLC (LSR)

Nameplate Abbreviation: LESER LLC

Charlotte, NC 28273United States

Design Name: 437	NBCert # 372	13
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/12/2024

Design Type

[Safety Relief Valve] 437 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 8, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.020 SCFM/PSIA; (alternate medium): 2.870 PPH/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.375-1 NPS	.5 - 1 NPS	0.082 in ²	0.394 in	0.055 in	15-2610 psi	Air	UV
0.375-1 NPS	.5 - 1 NPS	0.082 in ²	0.394 in	0.055 in	15-2610 psi	Steam	UV
Design Nam	e: 437 (Liqui	ds)		NBCert	# 37189		
Manufacturer/A	Assembler		Designat	ors	E	xpiration Dat	e
Assembler			UV		07	7/12/2024	
Design Type							
[Relief Valve] 4: Capacity Tests: Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: LE	37 (Liquids) Sec. UV at Leser Gn blishing Relieving Ca 1.540 GPM/SQ.RT. I /ater/Liquid; Certified efinition: First Steady acteristics: Fixed guration: Curtain Are ESER GmbH & Co. K	nbh & Co., KG pacity: Flow Ca SID : Liquid Stream :a :G {LES}	on November 22, 200 [.] apacity, Flow Factor	1			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.5 - 1 NPS	0.082 in ²	0.394 in	0.055 in	15-2610 psi	Water	UV
Design Nam	e: 438 Sub T	⁻ypes 481, 4	439	NBCert	# 37190		
Manufacturer/A	Assembler		Designat	ors	E:	xpiration Dat	e
Assembler		_	UV	_	06	6/05/2024	
Design Type [Safety Relief Valve] 438 Sub Types 481, 439 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 12, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.904 SCFM/PSIA; (alternate medium): 2.530 PPH/PSIA Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge							
Blowdown Char Flow Area Confi Designed by: LE	acteristics: Fixed guration: Curtain Are ESER GmbH & Co. K	a (G {LES}					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.375-1 NPS	.5 - 1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Air	UV
0.375-1 NPS	5 - 1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Steam	UV

Design Nam	e: 438 Sub T	∕ypes 481, 4	139, Liquids	NBCert	# 37202		
Manufacturer/A	Assembler		Designat	ors	E	xpiration Date	
Assembler			UV		07	7/12/2024	
Design Type							
[Safety Relief Va Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: LE	alve] 438 Sub Types Sec. UV at Leser Gn olishing Relieving Ca 1.490 GPM/SQ.RT. F /ater/Liquid; Certified efinition: First Steady racteristics: Fixed iguration: Curtain Are ESER GmbH & Co. K	481, 439, Liqu nbh & Co., KG o pacity: Flow Ca PSID : Liquid Stream a :G {LES}	ids on November 23, 2001 pacity, Flow Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	0.5-1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Water	UV
Design Nam	e: 441/442/4	44		NBCert	# 37044		
Manufacturer/A	Assembler		Designat	ors	E	xpiration Date	
Assembler			UV		07	7/12/2024	
Design Type							
[Safety Relief Va Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: LE	alve] 441/442/444 Sec. UV at Leser Gn blishing Relieving Cal 0.699 Unitless ir/Gas, Steam; Certifi efinition: Initial Audibl acteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K	nbh & Co., KG o pacity: Flow Ca ed: Air, Gas, St e Discharge Lift iG {LES}	on February 17, 1997 pacity, K eam				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5,2 NPS	0.644 in²	0.906 in	0.277 in	15-715 psi	Air	UV
1 NPS	1.5,2 NPS	0.644 in ²	0.906 in	0.277 in	15-715 psi	Steam	UV
1.25-1.5 NPS	2 NPS	1.024 in ²	1.142 in	0.349 in	15-715 psi	Air	UV
1.25-1.5 NPS	2 NPS	1.024 in ²	1.142 in	0.349 in	15-715 psi	Steam	UV
1.5 NPS	2.5,3 NPS	1.667 in ²	1.457 in	0.446 in	15-715 psi	Air	UV
1.5 NPS	2.5,3 NPS	1.667 in ²	1.457 in	0.446 in	15-715 psi	Steam	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.554 in	15-715 psi	Air	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.554 in	15-715 psi	Steam	UV
2.5-3 NPS	4 NPS	4.383 in ²	2.362 in	0.723 in	15-500 psi	Air	UV
2.5-3 NPS	4 NPS	4.383 in ²	2.362 in	0.723 in	15-500 psi	Steam	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.891 in	15-500 psi	Air	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.891 in	15-500 psi	Steam	UV
4 NPS	6 NPS	10.304 in ²	3.622 in	1.108 in	15-418 psi	Air	UV

4 NPS

5 NPS

6 NPS

8 NPS

10.304 in²

11.692 in²

3.622 in

3.858 in

1.108 in

1.181 in

15-418 psi

15-315 psi

UV

UV

Steam

Air

5 NPS	8 NPS	11.692 in ²	3.858 in	1.181 in	15-315 psi	Steam	UV
6 NPS	10 NPS	19.021 in²	4.921 in	1.506 in	15-290 psi	Air	UV
6 NPS	10 NPS	19.021 in²	4.921 in	1.506 in	15-290 psi	Steam	UV
8 NPS	12 NPS	33.143 in ²	6.496 in	1.988 in	15-430 psi	Air	UV
8 NPS	12 NPS	33.143 in²	6.496 in	1.988 in	15-430 psi	Steam	UV
10 NPS	14 NPS	48.695 in ²	7.874 in	2.409 in	15-300 psi	Air	UV
10 NPS	14 NPS	48.695 in ²	7.874 in	2.409 in	15-300 psi	Steam	UV
12 NPS	16 NPS	67.229 in ²	9.252 in	2.831 in	15-264 psi	Air	UV
12 NPS	16 NPS	67.229 in ²	9.252 in	2.831 in	15-264 psi	Steam	UV
16 NPS	20 NPS	105.94 in²	11.614 in	3.554 in	15-175 psi	Air	UV
16 NPS	20 NPS	105.94 in²	11.614 in	3.554 in	15-175 psi	Steam	UV
Design Name	e: 441/442/44	14 liquids		NBCert ‡	# 37055		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			UV		07	/12/2024	
Design Type							
Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	lishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K	bacity: Flow Cap Liquid Stream Lift G {LES}	bacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5,2 NPS	0.644 in ²	0.906 in	0.277 in	15-715 psi	Water	UV
1.25-1.5 NPS	2 NPS	1.024 in ²	1.142 in	0.349 in	15-715 psi	Water	UV
1.5 NPS	2.5,3 NPS	1.667 in ²	1.457 in	0.446 in	15-715 psi	Water	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.554 in	15-715 psi	Water	UV
2.5-3 NPS	4 NPS	4.383 in ²	2.362 in	0.723 in	15-500 psi	Water	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.891 in	15-500 psi	Water	UV
4 NPS	6 NPS	10.304 in ²	3.622 in	1.108 in	15-418 psi	Water	UV
5 NPS	8 NPS	11.692 in ²	3.858 in	1.181 in	15-315 psi	Water	UV
6 NPS	10 NPS	19.021 in ²	4.921 in	1.506 in	15-290 psi	Water	UV
8 NPS	12 NPS	33.143 in ²	6.496 in	1.988 in	15-430 psi	Water	UV
10 NPS	14 NPS	48.695 in ²	7.874 in	2.409 in	15-300 psi	Water	UV
12 NPS	16 NPS	67.229 in ²	9.252 in	2.831 in	15-264 psi	Water	UV
16 NPS	20 NPS	105.94 in²	11.614 in	3.554 in	15-175 psi	Water	UV

Design Name: 447 Air/Gas	NBCert # 371	23
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/12/2024

[Safety Relief Valve] 447 Air/Gas Capacity Tests: Sec. UV at National Board Testing Lab on May 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.617 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2 NPS	0.644 in ²	0.905 in	0.19 in	15-240 psi	Air	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.39 in	15-240 psi	Air	UV
3 NPS	4 NPS	4.383 in ²	2.362 in	0.52 in	15-240 psi	Air	UV
4 NPS	6 NPS	10.304 in ²	3.622 in	0.91 in	15-240 psi		UV

 Design Name:
 447 Liquid
 NBCert # 37134

 Manufacturer/Assembler
 Designators
 Expiration Date

 Assembler
 UV
 07/12/2024

Design Type

[Relief Valve] 447 Liquid

Capacity Tests: Sec. UV at National Board Testing Lab on May 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.431 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2 NPS	0.644 in ²	0.906 in	0.19 in	15-240 psi	Water	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.39 in	15-240 psi	Water	UV
3 NPS	4 NPS	4.383 in ²	2.362 in	0.52 in	15-240 psi	Water	UV
4 NPS	6 NPS	10.304 in ²	3.622 in	0.91 in	15-240 psi	Water	UV

Design Name: 459/462

NBCert #

37112

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/12/2024

Design Type

[Safety Relief Valve] 459/462 Capacity Tests: Sec. UV at National Board Testing Lab on February 17, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.811 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-13780 psi	Air	UV
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-2068 psi	Steam	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-6175 psi	Air	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-1965 psi	Steam	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-2940 psi	Air	UV
1-2 NPS	1.5 - 2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Air	UV
1-2 NPS	1.5 - 2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Steam	UV

Design Name: 459/462 liquids

NBCert #

Manufacturer/Assembler	Designators	Expiration Date				
Assembler	UV	07/12/2024				
Design Type						
[Relief Valve] 459/462 liquids Capacity Tests: Sec. UV at National Board Testing Lab on Jan Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.566 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed	uary 29, 1997					

Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.8125 NPS	1-2 NPS	0.0438 in²	0.236 in	0.043 in	15-13780 psi	Water	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-6175 psi	Water	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-2940 psi	Water	UV
1-2 NPS	1.5-2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Water	UV

Design Name: 483, 484, 485 (1'

NBCert #

37145

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/06/2024

Design Type

[Safety Relief Valve] 483, 484, 485 (1") Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on January 4, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.960 SCFM/PSIA; (alternate medium): 5.500 PPH/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5 NPS	0.127 in ²	0.512 in	0.079 in	15-232 psi	Air	UV
1 NPS	1.5 NPS	0.127 in ²	0.512 in	0.079 in	15-232 psi	Steam	UV

Design Name	e: 483, 484, 4	485 (1") Liq	uids	NBCert	# 3715	6	
Manufacturer/A	ssembler		Designat	ors		Expiration Date	
Assembler			UV			07/12/2024	
Design Type							
[Relief Valve] 48 Capacity Tests: 3 Method of Estab Certified Value: 3 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	33, 484, 485 (1") Liqu Sec. UV at Leser Gu Ilishing Relieving Cap 2.960 GPM/SQ.RT. F 'ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Curtain Area SER GmbH & Co. K	iids ibh & Co., KG c pacity: Flow Ca 'SID Liquid Stream a G {LES}	on January 8, 2001 pacity, Flow Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5 NPS	0.157 in ²	0.512 in	0.098 in	15-232 psi	Water	UV
Design Name	e: 483, 484, 4	485 (1.5")		NBCert	# 3716	57	
Manufacturer/A	ssembler		Designat	ors		Expiration Date	
Assembler			UV			07/12/2024	
Design Type							
Capacity Relief Va Capacity Tests: 3 Method of Estab Certified Value: 4 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	ave] 483, 484, 485 (Sec. UV at Leser Gm lishing Relieving Cap 4.960 SCFM/PSIA; (a r/Gas, Steam; Certifie finition: Initial Audible acteristics: Fixed guration: Curtain Area SER GmbH & Co. K	1.5) bh & Co., KG c pacity: Flow Ca alternate mediu ed: Air, Gas, Ste e Discharge a G {LES}	on February 1, 2001 pacity, Slope m): 13.930 PPH/PSIA eam	λ			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 NPS	0.427 in ²	0.984 in	0.139 in	15-232 psi	Air	UV
1.5 NPS	2 NPS	0.427 in ²	0.984 in	0.139 in	15-232 psi	Steam	UV
Design Name	e: 483, 484, 4	485 (1.5") L	iquids	NBCert	# 3717	'8	
Manufacturer/A	ssembler		Designat	ors		Expiration Date	
Assembler			UV			07/12/2024	
Design Type							
[Relief Valve] 483, 484, 485 (1.5") Liquids Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on May 1, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 7.460 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: LESER GmbH & Co. KG {LES}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 NPS	0.485 in ²	0.984 in	0.157 in	15-232 psi	Water	UV

Design Name: 488	NBCert # 370	22
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/12/2024
Design Type		
[Safety Relief Valve] 488		

Capacity Tests: Sec. UV at National Board Testing Lab on May 31, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.721 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5 NPS	0.644 in²	0.906 in	0.256 in	20-232 psi	Air	UV
1 NPS	1.5 NPS	0.644 in ²	0.906 in	0.256 in	20-232 psi	Steam	UV
1.5 NPS	2.5 NPS	1.667 in ²	1.457 in	0.416 in	20-232 psi	Air	UV
1.5 NPS	2.5 NPS	1.667 in ²	1.457 in	0.416 in	20-232 psi	Steam	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.512 in	20-232 psi	Air	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.512 in	20-232 psi	Steam	UV
2.5 NPS	4 NPS	4.383 in ²	2.362 in	0.674 in	20-232 psi	Air	UV
2.5 NPS	4 NPS	4.383 in ²	2.362 in	0.674 in	20-232 psi	Steam	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.832 in	20-232 psi	Air	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.832 in	20-232 psi	Steam	UV
4 NPS	6 NPS	10.3 in ²	3.622 in	1.035 in	20-232 psi	Air	UV
4 NPS	6 NPS	10.3 in ²	3.622 in	1.035 in	20-232 psi	Steam	UV

Design Name: 488 (Liquids)	NBCert # 370	33
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/12/2024
Design Tuns		

Design Type

[Relief Valve] 488 (Liquids) Capacity Tests: Sec. UV at National Board Testing Lab on June 1, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.472 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5 NPS	0.644 in ²	0.906 in	0.216 in	15-232 psi	Water	UV
1.5 NPS	2.5 NPS	1.667 in ²	1.457 in	0.347 in	15-232 psi	Water	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.431 in	15-232 psi	Water	UV
2.5 NPS	4 NPS	4.383 in ²	2.362 in	0.562 in	15-232 psi	Water	UV

3 NPS	5 NPS	6.666 in ²	2.913 in	0.693 in	15-232 psi	Water	UV	
4 NPS	6 NPS	10.3 in ²	3.622 in	0.862 in	15-232 psi	Water	UV	
Design Name	e: 526			NBCert i	# 37224			
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date		
Assembler			UV		07	7/12/2024		
Design Type								
[Safety Relief Valve] 526 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 22, 2001 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-2900 psi	Steam	UV	
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-6000 psi	Air	UV	
1.5-1.5 NPS	2,3 NPS	0.394 in ²	[F] 0.709 in	0.217 in	15-2900 psi	Steam	UV	
1.5-1.5 NPS	2,3 NPS	0.394 in ²	[F] 0.709 in	0.217 in	15-5000 psi	Air	UV	
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-2900 psi	Steam	UV	
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-3705 psi	Air	UV	
1.5-2 NPS	3 NPS	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Air	UV	
1.5-2 NPS	3 NPS	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Steam	UV	
2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-2900 psi	Steam	UV	
2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-4134 psi	Air	UV	
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-2900 psi	Steam	UV	
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-3700 psi	Air	UV	
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Air	UV	
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Steam	UV	
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Air	UV	
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Steam	UV	
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Air	UV	
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Steam	UV	
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Air	UV	
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Steam	UV	
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Air	UV	
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Steam	UV	
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Air	UV	
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Steam	UV	
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Air	UV	
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Steam	UV	
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Air	UV	

8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Steam	UV
Design Name	e: 526 (Liquio	ds)		NBCert	# 3723	5	
Manufacturer/A	ssembler		Designato	ors		Expiration Date	
Assembler			UV			07/12/2024	
Design Type							
[Relief Valve] 52 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	26 (Liquids) Sec. UV at Leser Gm Ilishing Relieving Cap 0.579 Unitless ater/Liquid; Certified: ifinition: First Steady guration: Nozzle/Full SER GmbH & Co. Ke	bh & Co., KG c pacity: Flow Ca Liquid Stream Lift G {LES}	on January 2, 2002 pacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-6000 psi	Water	UV
1.5-1.5 NPS	2,3 NPS	0.394 in ²	[F] 0.709 in	0.217 in	15-5000 psi	Water	UV
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-3705 psi	Water	UV
1.5-2 NPS	3 NPS	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Water	UV
2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-4134 psi	Water	UV
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-3700 psi	Water	UV
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.6698 in	15-1830 psi	Water	UV
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Water	UV
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Water	UV
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Water	UV
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.249 in	15-1038.5 psi	Water	UV
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Water	UV
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-914 psi	Water	UV
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Water	UV
Design Name	e: 526D			NBCert ;	# 3724	6	
Manufacturer/A	ssembler		Designato	ors		Expiration Date	
Assembler			UV		(08/30/2024	
Design Type							
[Safety Relief Valve] 526D Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on March 4, 2002 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.990 SCFM/PSIA; (alternate medium): 5.590 PPH/PSIA Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable Flow Area Configuration: Restricted Lift Designed by: LESER GmbH & Co. KG {LES}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2,3 NPS	0.121 in ²	[D] 0.551 in	0.0551 in	15-2900 psi	Steam	UV

1-1.5 NPS	2,3 NPS	0.121 in ²	[D] 0.551 in	0.0551 in	15-7975 psi	Air	UV			
Design Name	e: 526D Liqu	ids		NBCert a	# 37257	7				
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date				
Assembler			UV		0	7/12/2024				
Design Type										
[Relief Valve] 52 Capacity Tests: 5 Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	[Relief Valve] 526D Liquids Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on March 4, 2002 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.110 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: LESER GmbH & Co. KG {LES}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2,3 NPS	0.121 in²	[D] 0.551 in	0.0551 in	15-7975 psi	Water	UV			
Design Name	e: 810/820 (8	811/821)		NBCert ;	# 37280)				
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date				
Assembler			UV		0	4/06/2027				
Design Type										
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Pressure Relief Valve Sec. UV at Leser Gm lishing Relieving Cap 0.820 Unitless /Gas, Steam; Certific finition: Initial Audible acteristics: Adjustable guration: Nozzle/Full SER GmbH & Co. K	 P] 810/820 (81²) bh & Co., KG obacity: Flow Ca ed: Air, Gas, St Discharge and Fixed for Lift G {LES} 	I/821) on October 31, 2009 pacity, K eam Mod. Pilot							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1.5 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.394 in	15-10000 psi	Air	UV			
1.5 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.394 in	15-740 psi	Steam	UV			
1-1 NPS	2 NPS	0.147 in ²	[D] 0.433 mm	0.315 in	15-10000 psi	Air	UV			
1-1 NPS	2 NPS	0.147 in ²	[D] 0.433 mm	0.315 in	15-740 psi	Steam	UV			
1 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.315 in	15-10000 psi	Air	UV			
1 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.315 in	15-740 psi	Steam	UV			
1.5 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.394 in	15-10000 psi	Air	UV			
1.5 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.394 in	15-740 psi	Steam	UV			
1 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.315 in	15-10000 psi	Air	UV			
1 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.315 in	15-740 psi	Steam	UV			
1.5 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.394 in	15-10000 psi	Air	UV			
1.5 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.394 in	15-740 psi	Steam	UV			
1 NPS	2 NPS	0.644 in ²	[FB] 0.906 in	0.453 in	15-10000 psi	Air	UV			
1 NPS	2 NPS	0.644 in ²	[FB] 0.906 in	0.453 in	15-740 psi	Steam	UV			

1.5 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.472 in	15-10000 psi	Air	UV
1.5 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.472 in	15-740 psi	Steam	UV
2 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.591 in	15-10000 psi	Air	UV
2 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.591 in	15-740 psi	Steam	UV
1.5 NPS	2 NPS	1.024 in ²	[FB] 1.142 in	0.571 in	15-10000 psi	Air	UV
1.5 NPS	2 NPS	1.024 in ²	[FB] 1.142 in	0.571 in	15-740 psi	Steam	UV
1.5 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.472 in	15-10000 psi	Air	UV
1.5 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.472 in	15-740 psi	Steam	UV
2 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.591 in	15-10000 psi	Air	UV
2 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.591 in	15-740 psi	Steam	UV
1.5 NPS	3 NPS	1.552 in ²	[FB] 1.406 in	0.709 in	15-10000 psi	Air	UV
1.5 NPS	3 NPS	1.552 in ²	[FB] 1.406 in	0.709 in	15-740 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.758 in ²	[J] 1.496 in	0.591 in	15-10000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.758 in ²	[J] 1.496 in	0.591 in	15-740 psi	Steam	UV
3 NPS	4 NPS	2.465 in ²	[K] 1.772 in	0.866 in	15-3750 psi	Air	UV
3 NPS	4 NPS	2.465 in ²	[K] 1.772 in	0.866 in	15-740 psi	Steam	UV
2 NPS	3 NPS	2.805 in ²	[FB] 1.89 in	0.866 in	15-10000 psi	Air	UV
2 NPS	3 NPS	2.805 in ²	[FB] 1.89 in	0.866 in	15-740 psi	Steam	UV
3 NPS	4 NPS	3.818 in ²	[L] 2.205 in	0.866 in	15-3750 psi	Air	UV
3 NPS	4 NPS	3.818 in ²	[L] 2.205 in	0.866 in	15-740 psi	Steam	UV
4 NPS	6 NPS	3.818 in ²	[L] 2.205 in	0.787 in	15-3750 psi	Air	UV
4 NPS	6 NPS	3.818 in ²	[L] 2.205 in	0.787 in	15-740 psi	Steam	UV
4 NPS	6 NPS	4.832 in ²	[M] 2.48 in	0.787 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.832 in ²	[M] 2.48 in	0.787 in	15-740 psi	Steam	UV
4 NPS	6 NPS	5.796 in ²	[N] 2.717 in	0.787 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.796 in ²	[N] 2.717 in	0.787 in	15-740 psi	Steam	UV
3 NPS	4 NPS	6.848 in ²	[FB] 2.953 in	1.339 in	15-3750 psi	Air	UV
3 NPS	4 NPS	6.848 in ²	[FB] 2.953 in	1.339 in	15-740 psi	Steam	UV
4 NPS	6 NPS	8.386 in ²	[P] 3.268 in	1.339 in	15-3750 psi	Air	UV
4 NPS	6 NPS	8.386 in ²	[P] 3.268 in	1.339 in	15-740 psi	Steam	UV
4 NPS	6 NPS	10.987 in ²	[FB] 3.74 in	1.693 in	15-3750 psi	Air	UV
4 NPS	6 NPS	10.987 in ²	[FB] 3.74 in	1.693 in	15-740 psi	Steam	UV
6 NPS	8 NPS	14.73 in ²	[Q] 4.331 in	2.165 in	15-1500 psi	Air	UV
6 NPS	8 NPS	14.73 in ²	[Q] 4.331 in	2.165 in	15-740 psi	Steam	UV
6 NPS	8 NPS	21.534 in ²	[R] 5.236 in	2.165 in	15-1500 psi	Air	UV
6 NPS	8 NPS	21.534 in ²	[R] 5.236 in	2.165 in	15-740 psi	Steam	UV
6 NPS	8 NPS	24.547 in ²	[FB] 5.591 in	2.559 in	15-1500 psi	Air	UV
6 NPS	8 NPS	24.547 in ²	[FB] 5.591 in	2.559 in	15-740 psi	Steam	UV
8 NPS	10 NPS	34.359 in ²	[T] 6.614 in	3.15 in	15-1500 psi	Air	UV
8 NPS	10 NPS	34.359 in ²	[T] 6.614 in	3.15 in	15-740 psi	Steam	UV
8 NPS	10 NPS	39.443 in²	[FB] 7.087 in	3.15 in	15-1500 psi	Air	UV

8 NPS	10 NPS	39.443 in ²	[FB] 7.087 in	3.15 in	15-740 psi	Steam	UV
Design Name	e: 820 (liquid) (821)		NBCert ‡	# 37268	3	
Manufacturer/A	ssembler		Designato	ors	E	Expiration Date	
Assembler			UV		C	4/29/2027	
Design Type							
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Pressure Relief Valve Sec. UV at Leser Gm lishing Relieving Cap 0.689 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K] 820 (liquid) (i bh & Co., KG c pacity: Flow Ca Liquid Stream Lift G {LES}	821) on November 6, 2009 pacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.315 in	15-10000 psi	Water	UV
1.5 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.394 in	15-10000 psi	Water	UV
1 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.315 in	15-10000 psi	Water	UV
1.5 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.394 in	15-10000 psi	Water	UV
1 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.315 in	15-10000 psi	Water	UV
1.5 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.394 in	15-10000 psi	Water	UV
1 NPS	2 NPS	0.644 in ²	[FB] 0.906 in	0.453 in	15-10000 psi	Water	UV
1.5 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.472 in	15-10000 psi	Water	UV
2 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.591 in	15-10000 psi	Water	UV
1.5 NPS	2 NPS	1.142 in ²	[FB] 1.142 in	0.571 in	15-10000 psi	Water	UV
1.5 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.472 in	15-10000 psi	Water	UV
2 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.591 in	15-10000 psi	Water	UV
1.5 NPS	3 NPS	1.552 in ²	[FB] 1.406 in	0.709 in	15-10000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.758 in ²	[J] 1.496 in	0.591 in	15-10000 psi	Water	UV
3 NPS	4 NPS	2.465 in ²	[K] 1.772 in	0.866 in	15-3750 psi	Water	UV
2 NPS	3 NPS	2.805 in ²	[FB] 1.89 in	0.866 in	15-10000 psi	Water	UV
3 NPS	4 NPS	3.818 in ²	[L] 2.205 in	0.866 in	15-3750 psi	Water	UV
4 NPS	6 NPS	3.818 in ²	[L] 2.205 in	0.787 in	15-3750 psi	Water	UV
4 NPS	6 NPS	4.832 in ²	[M] 2.48 in	0.787 in	15-3750 psi	Water	UV
4 NPS	6 NPS	5.796 in ²	[N] 2.717 in	0.787 in	15-3750 psi	Water	UV
3 NPS	4 NPS	6.848 in ²	[FB] 2.953 in	1.339 in	15-3750 psi	Water	UV
4 NPS	6 NPS	8.386 in ²	[P] 3.268 in	1.339 in	15-3750 psi	Water	UV
4 NPS	6 NPS	10.987 in²	[FB] 3.74 in	1.693 in	15-3750 psi	Water	UV
6 NPS	8 NPS	14.73 in ²	[Q] 4.331 in	2.165 in	15-1500 psi	Water	UV
6 NPS	8 NPS	21.534 in ²	[R] 5.236 in	2.165 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.547 in ²	[FB] 5.591 in	2.559 in	15-1500 psi	Water	UV
8 NPS	10 NPS	34.359 in ²	[T] 6.614 in	3.15 in	15-1500 psi	Water	UV
8 NPS	10 NPS	39.443 in²	[FB] 7.087 in	3.15 in	15-1500 psi	Water	UV

LESER Valvulas de Seguranca Ltda. (PLB)

Rio de Janeiro, RJ, CEP: 22713-460Brazil

Design Name	: 437			NBCert # 3721			13				
Manufacturer/As	ssembler		Designato	ors		Expiration Date					
Assembler			UV	UV			11/12/2024				
Design Type											
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Air/ Set Pressure Def Blowdown Chara Flow Area Config Designed by: LES	ve] 437 Sec. UV at Leser Gm ishing Relieving Cap .020 SCFM/PSIA; (a /Gas, Steam; Certific finition: Initial Audible cteristics: Fixed juration: Curtain Area SER GmbH & Co. K	bh & Co., KG c pacity: Flow Ca Ilternate mediu ed: Air, Gas, Ste Discharge G {LES}	on November 8, 2001 bacity, Slope m): 2.870 PPH/PSIA eam								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.375-1 NPS	.5 - 1 NPS	0.082 in ²	0.394 in	0.055 in	15-2610 psi	Air	UV				
0.375-1 NPS	.5 - 1 NPS	0.082 in ²	0.394 in	0.055 in	15-2610 psi	Steam	UV				
Design Name	e: 437 (Liquio	ls)		NBCert i	# 3718	9					
Manufacturer/As	ssembler		Designate	Manufacturer/Assembler Designators Expiration Date							
Assembler											
Assembler			UV			11/13/2024					
Assembler Design Type			UV			11/13/2024					
Assembler Design Type [Relief Valve] 43 Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Wa Set Pressure Def Blowdown Chara Flow Area Config Designed by: LES	7 (Liquids) Sec. UV at Leser Gm ishing Relieving Cap .540 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady cteristics: Fixed juration: Curtain Area SER GmbH & Co. K	bh & Co., KG c acity: Flow Ca SID Liquid Stream a G {LES}	UV on November 22, 2001 bacity, Flow Factor			11/13/2024					
Assembler Design Type [Relief Valve] 43 Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Wa Set Pressure Def Blowdown Chara Flow Area Config Designed by: LES Inlet Size	7 (Liquids) Sec. UV at Leser Gm ishing Relieving Cap .540 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady s cteristics: Fixed guration: Curtain Area SER GmbH & Co. Ko Outlet Size	bh & Co., KG c bacity: Flow Ca SID Liquid Stream G {LES} Flow Area	UV on November 22, 2001 bacity, Flow Factor Orifice [designator] dia.	Lift	Set Pressure Range	11/13/2024 Media	Designator				
Assembler Design Type [Relief Valve] 43 Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Wa Set Pressure Def Blowdown Chara Flow Area Config Designed by: LES Inlet Size 0.5-1 NPS	7 (Liquids) Sec. UV at Leser Gm ishing Relieving Cap .540 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady is cteristics: Fixed juration: Curtain Area SER GmbH & Co. Ko Outlet Size .5 - 1 NPS	bh & Co., KG c acity: Flow Ca SID Liquid Stream 3 G {LES} Flow Area 0.082 in ²	UV on November 22, 2001 pacity, Flow Factor Orifice [designator] dia. 0.394 in	Lift 0.055 in	Set Pressure Range 15-2610 psi	11/13/2024 Media Water	Designator				
Assembler Design Type [Relief Valve] 43 Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Wa Set Pressure Def Blowdown Chara Flow Area Config Designed by: LES Inlet Size 0.5-1 NPS Design Name	7 (Liquids) Sec. UV at Leser Gm ishing Relieving Cap .540 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady s cteristics: Fixed puration: Curtain Area SER GmbH & Co. K0 Outlet Size .5 - 1 NPS	bh & Co., KG c acity: Flow Caj SID Liquid Stream G {LES} Flow Area 0.082 in ²	UV on November 22, 2001 pacity, Flow Factor Orifice [designator] dia. 0.394 in	Lift 0.055 in NBCert 7	Set Pressure Range 15-2610 psi	11/13/2024 Media Water	Designator UV				
Assembler Design Type [Relief Valve] 433 Capacity Tests: S Method of Establ Certified Value: 1 Media - Test: Wa Set Pressure Def Blowdown Chara Flow Area Config Designed by: LES Inlet Size 0.5-1 NPS Design Name Manufacturer/As	7 (Liquids) Sec. UV at Leser Gm ishing Relieving Cap .540 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady s cteristics: Fixed puration: Curtain Area SER GmbH & Co. K0 Outlet Size .5 - 1 NPS :: 438 Sub T ssembler	bh & Co., KG c acity: Flow Caj SID Liquid Stream G {LES} Flow Area 0.082 in ² ypes 481, 4	UV on November 22, 2001 pacity, Flow Factor Orifice [designator] dia. 0.394 in .39 Designato	Lift 0.055 in NBCert #	Set Pressure Range 15-2610 psi # 3719	11/13/2024 Media Water 00 Expiration Date	Designator UV				

[Safety Relief Valve] 438 Sub Types 481, 439 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 12, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.904 SCFM/PSIA; (alternate medium): 2.530 PPH/PSIA Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.375-1 NPS	.5 - 1 NPS	0.064 in²	0.394 in	0.043 in	15-2610 psi	Air	UV				
0.375-1 NPS	.5 - 1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Steam	UV				
Design Nam	e: 438 Sub T	Гуреs 481, 4	439, Liquids	NBCe	ert # 37202						
Manufacturer/A	Assembler		Designat	ors	Ex	piration Da	ate				
Assembler			UV		11	/13/2024					
Design Type											
[Safety Relief V Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Confi Designed by: LE	[Safety Relief Valve] 438 Sub Types 481, 439, Liquids Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 23, 2001 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 1.490 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: LESER GmbH & Co. KG {LES}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	0.5-1 NPS	0.064 in ²	0.394 in	0.043 in	15-2610 psi	Water	UV				
Design Nam	e: 441/442/4	44		NBCe	ert # 37044						
Manufacturer/A	Assembler		Designat	ors	Ex	piration Da	ate				
Assembler			UV		11	/13/2024					
Design Type											
[Safety Relief V Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure De Blowdown Char Flow Area Confi Designed by: LE	Design Type [Safety Relief Valve] 441/442/444 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on February 17, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.699 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Deside Life DEPERD										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
1 NPS	1.5,2 NPS	0.644 in ²	0.906 in	0.277 in	15-715 psi	Air	UV				
1 NPS	1.5,2 NPS	0.644 in ²	0.906 in	0.277 in	15-715 psi	Steam	UV				
1.25-1.5 NPS	2 NPS	1.024 in ²	1.142 in	0.349 in	15-715 psi	Air	UV				
1.25-1.5 NPS	2 NPS	1.024 in ²	1.142 in	0.349 in	15-715 psi	Steam	UV				
1.5 NPS	2.5,3 NPS	1.667 in ²	1.457 in	0.446 in	15-715 psi	Air	UV				

1.5 NPS	2.5,3 NPS	1.667 in ²	1.457 in	0.446 in	15-715 psi	Steam	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.554 in	15-715 psi	Air	UV
2 NPS	3 NPS	2.576 in ²	1.811 in	0.554 in	15-715 psi	Steam	UV
2.5-3 NPS	4 NPS	4.383 in ²	2.362 in	0.723 in	15-500 psi	Air	UV
2.5-3 NPS	4 NPS	4.383 in ²	2.362 in	0.723 in	15-500 psi	Steam	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.891 in	15-500 psi	Air	UV
3 NPS	5 NPS	6.666 in ²	2.913 in	0.891 in	15-500 psi	Steam	UV
4 NPS	6 NPS	10.304 in ²	3.622 in	1.108 in	15-418 psi	Air	UV
4 NPS	6 NPS	10.304 in²	3.622 in	1.108 in	15-418 psi	Steam	UV
5 NPS	8 NPS	11.692 in²	3.858 in	1.181 in	15-315 psi	Air	UV
5 NPS	8 NPS	11.692 in²	3.858 in	1.181 in	15-315 psi	Steam	UV
6 NPS	10 NPS	19.021 in²	4.921 in	1.506 in	15-290 psi	Air	UV
6 NPS	10 NPS	19.021 in²	4.921 in	1.506 in	15-290 psi	Steam	UV
8 NPS	12 NPS	33.143 in²	6.496 in	1.988 in	15-430 psi	Air	UV
8 NPS	12 NPS	33.143 in²	6.496 in	1.988 in	15-430 psi	Steam	UV
10 NPS	14 NPS	48.695 in ²	7.874 in	2.409 in	15-300 psi	Air	UV
10 NPS	14 NPS	48.695 in ²	7.874 in	2.409 in	15-300 psi	Steam	UV
12 NPS	16 NPS	67.229 in²	9.252 in	2.831 in	15-264 psi	Air	UV
12 NPS	16 NPS	67.229 in ²	9.252 in	2.831 in	15-264 psi	Steam	UV
16 NPS	20 NPS	105.94 in²	11.614 in	3.554 in	15-175 psi	Air	UV
	20 NPS	105.94 in²	11.614 in	3.554 in	15-175 psi	Steam	UV
Design Name	e: 441/442/44	44 liquids		NBCert i	¥ 37055		
Design Name Manufacturer/A	e: 441/442/44	44 liquids	Designato	NBCert #	# 37055 Ex	piration Date	
Design Name Manufacturer/A Assembler	e: 441/442/44 Assembler	14 liquids	Designato	NBCert ≉ ors	# 37055 Ex 11	piration Date	
Design Name Manufacturer/A Assembler Design Type	e: 441/442/44 ssembler	44 liquids	Designato	NBCert ≉ ors	# 37055 Ex 11	piration Date /13/2024	_
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: W Set Pressure Des Blowdown Chara Flow Area Config Designed by: LE	e: 441/442/44 Assembler 41/442/444 liquids Sec. UV at Leser Gm bishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: afinition: First Steady acteristics: Fixed guration: Nozzle/Full ESER GmbH & Co. K	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES}	Designato UV n September 6, 1996 bacity, K	NBCert ≉	# 37055 Ex 11	piration Date /13/2024	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	e: 441/442/44 Assembler 41/442/444 liquids Sec. UV at Leser Gm Mishing Relieving Cap 0.521 Unitless dishing Relieving Cap 0.521 Unitless finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area	Designato UV n September 6, 1996 bacity, K	NBCert #	# 37055 Ex 11 Set Pressure Range	piration Date /13/2024 Media	Designator
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS	e: 441/442/44 Assembler 41/442/444 liquids Sec. UV at Leser Gm bishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 1.5,2 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ²	Designato UV n September 6, 1996 bacity, K Orifice [designator] dia. 0.906 in	NBCert #	 # 37055 Ex 11 Set Pressure Range 15-715 psi 	piration Date /13/2024 Media Water	Designator UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS	e: 441/442/44 Assembler 41/442/444 liquids Sec. UV at Leser Gmo bishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: bifinition: First Steady acteristics: Fixed guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ²	Designato UV n September 6, 1996 bacity, K Orifice [designator] dia. 0.906 in 1.142 in	NBCert #	 # 37055 Ex 11 Set Pressure Range 15-715 psi 15-715 psi 	piration Date /13/2024 Media Water Water	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm bishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: 2finition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ²	Designato UV n September 6, 1996 pacity, K Orifice [designator] dia. 0.906 in 1.142 in 1.457 in	NBCert #	 37055 Ex 11 Set Pressure Range 15-715 psi 15-715 psi 15-715 psi	piration Date /13/2024 Media Water Water Water	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 1.5 NPS 2 NPS	e: 441/442/44 Assembler 41/442/444 liquids Sec. UV at Leser Gm bishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: ateristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS 3 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.667 in ² 2.576 in ²	Designato UV n September 6, 1996 pacity, K Crifice (designator] dia. 0.906 in 1.142 in 1.457 in 1.811 in	NBCert #	37055 Ex 11 Set Pressure 15-715 psi 15-715 psi 15-715 psi 15-715 psi 15-715 psi 15-715 psi	piration Date /13/2024 /13/20	Designator UV UV UV </td
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure Des Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 2 NPS 2.5-3 NPS	e: 441/442/44 Assembler 41/442/444 liquids Sec. UV at Leser Gm blishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS 3 NPS 4 NPS	44 liquids bh & Co., KG o pacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.667 in ² 2.576 in ² 4.383 in ²	Designato UV n September 6, 1996 pacity, K Orifice (designator] dia. 0.906 in 1.142 in 1.457 in 1.811 in 2.362 in	NBCert #	 37055 Ex 11 11 	piration Date (13/2024 (13/2024) (13/20) (13/2	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 1.5 NPS 2 NPS 2.5-3 NPS 3 NPS	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm bishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full ESER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS 3 NPS 4 NPS 5 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.024 in ² 2.576 in ² 4.383 in ² 6.666 in ²	Designato UV n September 6, 1996 bacity, K Orifice (designator) dia. 0.906 in 1.142 in 1.457 in 1.811 in 2.362 in 2.913 in	NBCert #	37055 Ex 11 5 11 12 12 <td>piration Date /13/2024 /Media Water Water Water Water Water Water Water Water Water</td> <td>Designator UV UV</td>	piration Date /13/2024 /Media Water Water Water Water Water Water Water Water Water	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 1.5 NPS 2 NPS 2.5-3 NPS 3 NPS 4 NPS	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm bishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS 3 NPS 4 NPS 5 NPS 6 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.667 in ² 2.576 in ² 4.383 in ² 6.666 in ² 10.304 in ²	Designato UV n September 6, 1996 pacity, K Crifice (designator] dia. 0.906 in 1.142 in 1.457 in 1.811 in 2.362 in 2.913 in 3.622 in	NBCert #	37055 Ex 11 5 11 11 11 12 13 14 15 <td>piration Date (13/2024 (Ander)</td> <td>Designator UV UV</td>	piration Date (13/2024 (Ander)	Designator UV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 44 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: LE Inlet Size 1 NPS 1.25-1.5 NPS 1.5 NPS 2 NPS 2.5-3 NPS 3 NPS 4 NPS 5 NPS	e: 441/442/44 ssembler 41/442/444 liquids Sec. UV at Leser Gm lishing Relieving Cap 0.521 Unitless ater/Liquid; Certified: ateristics: Fixed guration: Nozzle/Full SER GmbH & Co. K Outlet Size 1.5,2 NPS 2 NPS 2.5,3 NPS 3 NPS 4 NPS 5 NPS 6 NPS 8 NPS	44 liquids bh & Co., KG o bacity: Flow Cap Liquid Stream Lift G {LES} Flow Area 0.644 in ² 1.024 in ² 1.667 in ² 4.383 in ² 6.666 in ² 10.304 in ² 11.692 in ²	Designato UV n September 6, 1996 pacity, K Crifice (Jacobin) 0.906 in 1.142 in 1.457 in 1.811 in 2.362 in 2.913 in 3.622 in 3.858 in	NBCert #	37055 Ex 11 12 12 </td <td>piration Date (13/2024 (13/2024) (13/20) (13/20) (13/20) (13/20) (13/20) (13/20) (13/2</td> <td>Designator UV UV</td>	piration Date (13/2024 (13/2024) (13/20) (13/20) (13/20) (13/20) (13/20) (13/20) (13/2	Designator UV UV

6 NPS	10 NPS	19.021 in²	4.921 in	1.506 in	15-290 psi	Water	UV
8 NPS	12 NPS	33.143 in²	6.496 in	1.988 in	15-430 psi	Water	UV
10 NPS	14 NPS	48.695 in ²	7.874 in	2.409 in	15-300 psi	Water	UV
12 NPS	16 NPS	67.229 in ²	9.252 in	2.831 in	15-264 psi	Water	UV
16 NPS	20 NPS	105.94 in²	11.614 in	3.554 in	15-175 psi	Water	UV
Design Nam	e: 459/462			NBCert	# 37112		
Manufacturer//	Assembler		Designat	ors	E	xpiration Date	e
Assembler			UV		1'	1/13/2024	
Design Type							
Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure D Blowdown Chai Flow Area Conf Designed by: LI	Sec. UV at National blishing Relieving Ca 0.811 Unitless ir/Gas, Steam; Certifi efinition: Initial Audibl racteristics: Fixed iguration: Nozzle/Full ESER GmbH & Co. K	Board Testing L pacity: Flow Ca ed: Air, Gas, St e Discharge Lift (G {LES}	ab on February 17, 19 pacity, K eam	997			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-13780 psi	Air	UV
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-2068 psi	Steam	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-6175 psi	Air	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-1965 psi	Steam	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-2940 psi	Air	UV

Assembler				UV		11/13/2024		
Manufacturer/A	ssembler			Designators		Expiration Da	te	
Design Name	e: 459/462 lic	quids		NBCert #	± 3710			
1-2 NPS	1.5 - 2 NPS	0.373 in²	0.689 in	0.159 in	15-1470 psi	Steam	UV	
		0.070 : 2	0.000 :	0.450	45 4470	01	1.15.7	
1-2 NPS	1.5 - 2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Air	UV	
					•			

Design Type

[Relief Valve] 459/462 liquids

Capacity Tests: Sec. UV at National Board Testing Lab on January 29, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.566 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.8125 NPS	1-2 NPS	0.0438 in ²	0.236 in	0.043 in	15-13780 psi	Water	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-6175 psi	Water	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-2940 psi	Water	UV

Design Name	e: 526			NBCert a	# 37224					
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date				
Assembler			UV		11	1/12/2024				
Design Type										
[Safety Relief Valve] 526 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 22, 2001 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-2900 psi	Steam	UV			
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-6000 psi	Air	UV			
1.5-1.5 NPS	2,3 NPS	0.394 in²	[F] 0.709 in	0.217 in	15-2900 psi	Steam	UV			
1.5-1.5 NPS	2,3 NPS	0.394 in ²	[F] 0.709 in	0.217 in	15-5000 psi	Air	UV			
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-2900 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-3705 psi	Air	UV			
1.5-2 NPS	3 NPS	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Air	UV			
1.5-2 NPS	3 NPS	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Steam	UV			
2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-2900 psi	Steam	UV			
2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-4134 psi	Air	UV			
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-2900 psi	Steam	UV			
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-3700 psi	Air	UV			
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Air	UV			
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Steam	UV			
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Air	UV			
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Steam	UV			
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Air	UV			
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Steam	UV			
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Air	UV			
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Steam	UV			
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Air	UV			
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Steam	UV			
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Air	UV			
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Steam	UV			
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Air	UV			
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Steam	UV			
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Air	UV			
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Steam	UV			

1-2 NPS

1.5-2 NPS

0.373 in²

0.689 in

0.159 in

15-1470 psi

Water

UV

Design Nam	e: 526 (Liqui	ds)		NBC	ert # 372	35				
Manufacturer/	Assembler		Designa	Designators			Expiration Date			
Assembler			UV			11/12/2024				
Design Type										
[Relief Valve] 5 Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Conf Designed by: Lt	[Relief Valve] 526 (Liquids) Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on January 2, 2002 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.579 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}									
Inlet Size	Inlet Size Outlet Size Flow Area Orifice Lift Set Pressure Media Designator [designator] dia.									
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-6000 psi	Water	UV			
1.5-1.5 NPS	2,3 NPS	0.394 in ²	[F] 0.709 in	0.217 in	15-5000 psi	Water	UV			
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-3705 psi	Water	UV			

2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-4134 psi	Water	UV
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-3700 psi	Water	UV
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.6698 in	15-1830 psi	Water	UV
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Water	UV
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Water	UV
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Water	UV
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.249 in	15-1038.5 psi	Water	UV
6 NPS	8 NPS	19.325 in²	[R] 4.961 in	1.497 in	15-100 psi	Water	UV
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-914 psi	Water	UV
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Water	UV
Design Name	: 526D			NBCert #	37246		

0.323 in

15-2750 psi

Water

UV

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/12/2024

Design Type

1.5-2 NPS

3 NPS

0.975 in²

[H] 1.114 in

[Safety Relief Valve] 526D Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on March 4, 2002 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.990 SCFM/PSIA; (alternate medium): 5.590 PPH/PSIA Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable Flow Area Configuration: Restricted Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2,3 NPS	0.121 in ²	[D] 0.551 in	0.0551 in	15-2900 psi	Steam	UV
1-1.5 NPS	2,3 NPS	0.121 in ²	[D] 0.551 in	0.0551 in	15-7975 psi	Air	UV

Design Name	e: 526D Liqu	ids		NBCert ;	# 37257		
Manufacturer/A	ssembler		Designato	ors	E	piration Date	
Assembler			UV		11	/12/2024	
Design Type							
[Relief Valve] 526D Liquids Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on March 4, 2002 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.110 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: LESER GmbH & Co. KG {LES}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2,3 NPS	0.121 in ²	[D] 0.551 in	0.0551 in	15-7975 psi	Water	UV
Design Name	e: 810/820 (8	311/821)		NBCert	# 37280		
Manufacturer/A	ssembler		Designato	ors	E	piration Date	
Assembler			UV		12	/13/2027	
Design Type							
[Pilot Operated I Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: LE	Pressure Relief Valve Sec. UV at Leser Gm lishing Relieving Cap 0.820 Unitless r/Gas, Steam; Certific finition: Initial Audible acteristics: Adjustable guration: Nozzle/Full SER GmbH & Co. Ki] 810/820 (81 bh & Co., KG pacity: Flow Ca ed: Air, Gas, St Discharge and Fixed for Lift G {LES}	1/821) on October 31, 2009 pacity, K eam Mod. Pilot				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.394 in	15-10000 psi	Air	UV
1.5 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.394 in	15-740 psi	Steam	UV
1-1 NPS	2 NPS	0.147 in ²	[D] 0.433 mm	0.315 in	15-10000 psi	Air	UV
1-1 NPS	2 NPS	0.147 in ²	[D] 0.433 mm	0.315 in	15-740 psi	Steam	UV
1 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.315 in	15-10000 psi	Air	UV
1 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.315 in	15-740 psi	Steam	UV
1.5 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.394 in	15-10000 psi	Air	UV
1.5 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.394 in	15-740 psi	Steam	UV
1 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.315 in	15-10000 psi	Air	UV
1 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.315 in	15-740 psi	Steam	UV
1.5 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.394 in	15-10000 psi	Air	UV
1.5 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.394 in	15-740 psi	Steam	UV
1 NPS	2 NPS	0.644 in ²	[FB] 0.906 in	0.453 in	15-10000 psi	Air	UV
1 NPS	2 NPS	0.644 in ²	[FB] 0.906 in	0.453 in	15-740 psi	Steam	UV
1.5 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.472 in	15-10000 psi	Air	UV

1.5 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.472 in	15-740 psi	Steam	UV
2 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.591 in	15-10000 psi	Air	UV
2 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.591 in	15-740 psi	Steam	UV
1.5 NPS	2 NPS	1.024 in ²	[FB] 1.142 in	0.571 in	15-10000 psi	Air	UV
1.5 NPS	2 NPS	1.024 in ²	[FB] 1.142 in	0.571 in	15-740 psi	Steam	UV
1.5 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.472 in	15-10000 psi	Air	UV
1.5 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.472 in	15-740 psi	Steam	UV
2 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.591 in	15-10000 psi	Air	UV
2 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.591 in	15-740 psi	Steam	UV
1.5 NPS	3 NPS	1.552 in ²	[FB] 1.406 in	0.709 in	15-10000 psi	Air	UV
1.5 NPS	3 NPS	1.552 in ²	[FB] 1.406 in	0.709 in	15-740 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.758 in ²	[J] 1.496 in	0.591 in	15-10000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.758 in ²	[J] 1.496 in	0.591 in	15-740 psi	Steam	UV
3 NPS	4 NPS	2.465 in ²	[K] 1.772 in	0.866 in	15-3750 psi	Air	UV
3 NPS	4 NPS	2.465 in ²	[K] 1.772 in	0.866 in	15-740 psi	Steam	UV
2 NPS	3 NPS	2.805 in ²	[FB] 1.89 in	0.866 in	15-10000 psi	Air	UV
2 NPS	3 NPS	2.805 in ²	[FB] 1.89 in	0.866 in	15-740 psi	Steam	UV
3 NPS	4 NPS	3.818 in ²	[L] 2.205 in	0.866 in	15-3750 psi	Air	UV
3 NPS	4 NPS	3.818 in ²	[L] 2.205 in	0.866 in	15-740 psi	Steam	UV
4 NPS	6 NPS	3.818 in ²	[L] 2.205 in	0.787 in	15-3750 psi	Air	UV
4 NPS	6 NPS	3.818 in ²	[L] 2.205 in	0.787 in	15-740 psi	Steam	UV
4 NPS	6 NPS	4.832 in ²	[M] 2.48 in	0.787 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.832 in ²	[M] 2.48 in	0.787 in	15-740 psi	Steam	UV
4 NPS	6 NPS	5.796 in ²	[N] 2.717 in	0.787 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.796 in ²	[N] 2.717 in	0.787 in	15-740 psi	Steam	UV
3 NPS	4 NPS	6.848 in ²	[FB] 2.953 in	1.339 in	15-3750 psi	Air	UV
3 NPS	4 NPS	6.848 in ²	[FB] 2.953 in	1.339 in	15-740 psi	Steam	UV
4 NPS	6 NPS	8.386 in ²	[P] 3.268 in	1.339 in	15-3750 psi	Air	UV
4 NPS	6 NPS	8.386 in ²	[P] 3.268 in	1.339 in	15-740 psi	Steam	UV
4 NPS	6 NPS	10.987 in²	[FB] 3.74 in	1.693 in	15-3750 psi	Air	UV
4 NPS	6 NPS	10.987 in²	[FB] 3.74 in	1.693 in	15-740 psi	Steam	UV
6 NPS	8 NPS	14.73 in²	[Q] 4.331 in	2.165 in	15-1500 psi	Air	UV
6 NPS	8 NPS	14.73 in ²	[Q] 4.331 in	2.165 in	15-740 psi	Steam	UV
6 NPS	8 NPS	21.534 in²	[R] 5.236 in	2.165 in	15-1500 psi	Air	UV
6 NPS	8 NPS	21.534 in ²	[R] 5.236 in	2.165 in	15-740 psi	Steam	UV
6 NPS	8 NPS	24.547 in²	[FB] 5.591 in	2.559 in	15-1500 psi	Air	UV
6 NPS	8 NPS	24.547 in ²	[FB] 5.591 in	2.559 in	15-740 psi	Steam	UV
8 NPS	10 NPS	34.359 in ²	[T] 6.614 in	3.15 in	15-1500 psi	Air	UV
8 NPS	10 NPS	34.359 in ²	[T] 6.614 in	3.15 in	15-740 psi	Steam	UV
8 NPS	10 NPS	39.443 in ²	[FB] 7.087 in	3.15 in	15-1500 psi	Air	UV
8 NPS	10 NPS	39.443 in²	[FB] 7.087 in	3.15 in	15-740 psi	Steam	UV

Manufacturer/	Assembler		Designa	tors	E	Expiration Date		
Assembler			UV	UV 12/13/2027				
Design Type								
[Pilot Operated Pressure Relief Valve] 820 (liquid) (821) Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 6, 2009 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.689 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.315 in	15-10000 psi	Water	UV	
1.5 NPS	2 NPS	0.147 in ²	[D] 0.433 in	0.394 in	15-10000 psi	Water	UV	
1 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.315 in	15-10000 psi	Water	UV	
1.5 NPS	2 NPS	0.263 in ²	[E] 0.579 in	0.394 in	15-10000 psi	Water	UV	
1 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.315 in	15-10000 psi	Water	UV	
1.5 NPS	2 NPS	0.412 in ²	[F] 0.724 in	0.394 in	15-10000 psi	Water	UV	
1 NPS	2 NPS	0.644 in²	[FB] 0.906 in	0.453 in	15-10000 psi	Water	UV	
1.5 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.472 in	15-10000 psi	Water	UV	
2 NPS	3 NPS	0.678 in ²	[G] 0.929 in	0.591 in	15-10000 psi	Water	UV	
1.5 NPS	2 NPS	1.142 in ²	[FB] 1.142 in	0.571 in	15-10000 psi	Water	UV	
1.5 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.472 in	15-10000 psi	Water	UV	
2 NPS	3 NPS	1.052 in ²	[H] 1.157 in	0.591 in	15-10000 psi	Water	UV	
1.5 NPS	3 NPS	1.552 in ²	[FB] 1.406 in	0.709 in	15-10000 psi	Water	UV	
2-3 NPS	3, 4 NPS	1.758 in ²	[J] 1.496 in	0.591 in	15-10000 psi	Water	UV	
3 NPS	4 NPS	2.465 in ²	[K] 1.772 in	0.866 in	15-3750 psi	Water	UV	
2 NPS	3 NPS	2.805 in ²	[FB] 1.89 in	0.866 in	15-10000 psi	Water	UV	
3 NPS	4 NPS	3.818 in ²	[L] 2.205 in	0.866 in	15-3750 psi	Water	UV	
4 NPS	6 NPS	3.818 in ²	[L] 2.205 in	0.787 in	15-3750 psi	Water	UV	
4 NPS	6 NPS	4.832 in ²	[M] 2.48 in	0.787 in	15-3750 psi	Water	UV	
4 NPS	6 NPS	5.796 in ²	[N] 2.717 in	0.787 in	15-3750 psi	Water	UV	
3 NPS	4 NPS	6.848 in ²	[FB] 2.953 in	1.339 in	15-3750 psi	Water	UV	
4 NPS	6 NPS	8.386 in ²	[P] 3.268 in	1.339 in	15-3750 psi	Water	UV	
4 NPS	6 NPS	10.987 in ²	[FB] 3.74 in	1.693 in	15-3750 psi	Water	UV	
6 NPS	8 NPS	14.73 in ²	[Q] 4.331 in	2.165 in	15-1500 psi	Water	UV	
6 NPS	8 NPS	21.534 in ²	[R] 5.236 in	2.165 in	15-1500 psi	Water	UV	
6 NPS	8 NPS	24.547 in ²	[FB] 5.591 in	2.559 in	15-1500 psi	Water	UV	
8 NPS	10 NPS	34.359 in ²	[T] 6.614 in	3.15 in	15-1500 psi	Water	UV	
8 NPS	10 NPS	39.443 in ²	[FB] 7.087 in	3.15 in	15-1500 psi	Water	UV	

Mercer Valve Co., Inc. (MCO)

Mercer, WI 54547United States

Design Name	e: 81-100000	Series		NBCert	# 3800)1	
Manufacturer/A	ssembler		Designat	ors		Expiration Date)
Assembler			UV			06/14/2024	
Design Type							
[Safety Relief Va Capacity Tests: 5 Method of Estab Certified Value: 3 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Me	live] 81-100000 Seri Sec. UV at unknown lishing Relieving Cap 3.100 SCFM/PSIA c/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full ercer Valve Company	es lab on Novemb bacity: Flow Ca Gas Lift , Incorporated	eer 21, 1984 pacity, Slope {MVC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS	1 - 2 NPS	0.212 in ²	0.52 in	0.19 in	15-3500 psi	Air	UV
Design Name: 81-200000 Series NBCert # 38023							
Manufacturer/A	ssembler		Designat	ors		Expiration Date	•
Assembler			UV			06/14/2024	
			• ·				
Design Type							
Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: T Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Me	lve] 81-200000 Seri Sec. UV at National E lishing Relieving Cap 7.210 SCFM/PSIA /Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full ercer Valve Company	es Board Testing L bacity: Flow Ca Bas Lift , Incorporated	ab (Picaway) on Febr pacity, Slope {MVC}	uary 25, 1985			
Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: T Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Me	lve] 81-200000 Seri Sec. UV at National E lishing Relieving Cap 7.210 SCFM/PSIA r/Gas; Certified: Air, O finition: Pop acteristics: Fixed guration: Nozzle/Full ercer Valve Company Outlet Size	es Board Testing L Dacity: Flow Ca Bas Lift , Incorporated Flow Area	ab (Picaway) on Febr pacity, Slope {MVC} Orifice [designator] dia.	uary 25, 1985 Lift	Set Pressure Range	Media	Designator
Design Type [Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 7 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Me Inlet Size 1.5-2 NPS	Ive] 81-200000 Serii Sec. UV at National E lishing Relieving Cap 7.210 SCFM/PSIA /Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full ercer Valve Company Outlet Size 2 NPS	es Board Testing L bacity: Flow Ca Bas Lift Incorporated Flow Area 0.472 in ²	ab (Picaway) on Febr pacity, Slope {MVC} Orifice [designator] dia. 0.775 in	uary 25, 1985 Lift 0.3 in	Set Pressure Range 15-2500 psi	Media Air	Designator
Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: T Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Me Inlet Size 1.5-2 NPS Design Name	Ive] 81-200000 Seri Sec. UV at National E lishing Relieving Cap 7.210 SCFM/PSIA c/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full ercer Valve Company Outlet Size 2 NPS e: 9100	es Board Testing L Dacity: Flow Ca Gas Lift , Incorporated Flow Area 0.472 in ²	ab (Picaway) on Febr pacity, Slope (MVC} Orifice [designator] dia. 0.775 in	uary 25, 1985 Lift 0.3 in NBCert :	Set Pressure Range 15-2500 psi # 3805	Media Air	Designator UV
Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: T Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Me Inlet Size 1.5-2 NPS Design Name Manufacturer/A	Ive] 81-200000 Serii Sec. UV at National E lishing Relieving Cap 7.210 SCFM/PSIA c/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full ercer Valve Company Outlet Size 2 NPS e: 9100 ssembler	es Board Testing L Dacity: Flow Ca Gas Lift , Incorporated Flow Area 0.472 in ²	ab (Picaway) on Febr pacity, Slope {MVC} Orifice [designator] dia. 0.775 in Designat	uary 25, 1985 Lift 0.3 in NBCert : ors	Set Pressure Range 15-2500 psi # 3805	Media Air 56 Expiration Date	Designator UV

[Safety Relief Valve] 9100 Capacity Tests: Sec. UV at National Board Testing Lab on July 19, 1991 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.818 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Mercer Valve Company, Incorporated {MVC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.062 in ²	[C] 0.281 in	0.11 in	15-10000 psi	Air	UV
0.5-1.5 NPS	1 - 2 NPS	0.122 in ²	[D] 0.394 in	0.17 in	15-7500 psi	Air	UV
0.75-2 NPS	1 - 3 NPS	0.212 in ²	[E] 0.52 in	0.19 in	15-6000 psi	Air	UV
1-2 NPS	1-1/2 - 3 NPS	0.337 in ²	[F] 0.655 in	0.27 in	15-5000 psi	Air	UV
1.5-3 NPS	2 - 3 NPS	0.472 in ²	[G] 0.775 in	0.3 in	15-4000 psi	Air	UV
1.5-3 NPS	2 - 3 NPS	0.865 in ²	[H] 1.05 in	0.41 in	15-2750 psi	Air	UV
2-3 NPS	2-1/2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.58 in	15-2700 psi	Air	UV
2-3 NPS	3-4 NPS	1.622 in ²	[JO] 1.437 in	0.6 in	15-1800 psi	Air	UD
3-4 NPS	3,4,6 NPS	2.074 in ²	[K] 1.625 in	0.65 in	15-2200 psi	Air	UV
3-4 NPS	4, 6 NPS	3.205 in ²	[L] 2.02 in	0.8 in	15-2000 psi	Air	UV
4 NPS	6 NPS	4.08 in ²	[M] 2.28 in	0.9 in	15-2000 psi	Air	UV
4 NPS	6 NPS	4.909 in ²	[N] 2.5 in	0.985 in	15-740 psi	Air	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.2 in	15-525 psi	Air	UV

Mersen USA ACE Corp. (COA)

Salem, VA 24153United States

Design Name	e: Series 3			NBCert	# 901 ⁻			
Manufacturer/A	ssembler		Designat	ors		Expiration Dat	e	
Assembler			UD			01/23/2027		
Design Type								
[Rupture Disk De HolderDesignatio Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Flow Area Config Designed by: Me	[Rupture Disk Device] Series 3 HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on May 19, 1999 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 0.600 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Mersen USA ACE Corp. {COA}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1 NPS		0.78 in ²			50-400 psi		UD	
1.5 NPS		1.77 in ²			15-300 psi		UD	

10 NPS	78.5 in ²	15-100 psi	UD
12 NPS	113 in ²	15-100 psi	UD
14 NPS	138 in ²	15-75 psi	UD
16 NPS	183 in²	15-75 psi	UD
18 NPS	234 in ²	15-50 psi	UD
2 NPS	3.14 in ²	15-250 psi	UD
2.5 NPS	4.78 in ²	15-250 psi	UD
20 NPS	291 in ²	15-30 psi	UD
24 NPS	424.55 in ²	15-25 psi	UD
3 NPS	7.07 in ²	15-200 psi	UD
4 NPS	12.6 in ²	15-150 psi	UD
6 NPS	28.3 in ²	15-100 psi	UD
8 NPS	50 in ²	15-100 psi	UD

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	01/23/2027

Design Type

Ма

[Rupture Disk Device] Series 3 w. Dial Vac. Support HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on January 14, 2003 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value:12.500 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Mersen USA ACE Corp. {COA}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.39 in ²			15-50 psi		UD
1.5 NPS		0.845 in ²			7-20 psi		UD
10 NPS		39.41 in²			1-20 psi		UD
12 NPS		57.52 in²			0.5-20 psi		UD
14 NPS		70.99 in²			0.5-20 psi		UD
16 NPS		105.71 in²			0.5-20 psi		UD
18 NPS		119.96 in ²			0.5-20 psi		UD
2 NPS		1.37 in²			3-20 psi		UD
2.5 NPS		2.18 in ²			3-20 psi		UD
20 NPS		156.17 in ²			0.5-20 psi		UD
24 NPS		278.07 in ²			0.5-20 psi		UD
3 NPS		3.54 in ²			2-20 psi		UD
4 NPS		6.45 in ²			2-20 psi		UD
6 NPS		12.28 in ²			1-20 psi		UD
8 NPS		29.54 in ²			1-20 psi		UD

Design Name	e: Series 3 v	v/Bar Vac. S	upport	NE	6Cert #	90122			
Manufacturer/Assembler		Designat	tors	Expiration Date		te			
Manufacturer		UD			08/07/2026				
Design Type									
Design Type [Rupture Disk Device] Series 3 w/Bar Vac. Support HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on January 14, 2003 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 6.440 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Mersen USA ACE Corp. {COA}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pres Range	sure	Media	Designator	

1 NPS	0.405 in ²	15-50 psi	UD
1.5 NPS	1.02 in ²	7-20 psi	UD
10 NPS	58.5 in ²	1-20 psi	UD
12 NPS	89 in²	0.5-20 psi	UD
14 NPS	110 in ²	0.5-20 psi	UD
16 NPS	151 in²	0.5-20 psi	UD
18 NPS	198 in ²	0.5-20 psi	UD
2 NPS	2.14 in ²	3-20 psi	UD
2.5 NPS	3.66 in ²	3-20 psi	UD
20 NPS	251 in²	0.5-20 psi	UD
24 NPS	377 in ²	0.5-20 psi	UD
3 NPS	5.57 in ²	2-20 psi	UD
4 NPS	8.6 in ²	2-20 psi	UD
6 NPS	19.3 in ²	1-20 psi	UD
8 NPS	36.3 in ²	1-20 psi	UD

Midwest Valve Services, LLC (RSO)

Nameplate Abbreviation: Midwest Valve Services

Des Moines, IA 50313United States

Design Name:	243/249/443/449/546/843/849 49/8043/8049	9/943/5046/50 NBCert # 012	92
Manufacturer/Assem	bler	Designators	Expiration Date
Assembler		UV	08/27/2024

[Pilot Operated Pressure Relief Valve] 243/249/443/449/546/843/849/943/5046/5049/8043/8049 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on August 8, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-720 psi	Steam	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	15-10600 psi	Air	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	25-720 psi	Steam	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-720 psi	Steam	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-10600 psi	Air	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-720 psi	Steam	UV
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-10600 psi	Air	UV
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-720 psi	Steam	UV
6 NPS	8, 10 NPS	18.597 in ²	[R] 4.866 in	2.435 in	15-10600 psi	Air	UV
6 NPS	8, 10 NPS	18.597 in ²	[R] 4.866 in	2.435 in	15-720 psi	Steam	UV
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-10600 psi	Air	UV
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-720 psi	Steam	UV
Design Name	253/259/45	53/459/853/	/859/953/959/505	^{59/80} NBCert	# 01304		

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/27/2024

Design Type

[Pilot Operated Pressure Relief Valve] 253/259/453/459/853/859/953/959/5059/8053/8059

Capacity Tests: Sec. UV at unknown lab on July 31, 1997

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.627 Unitless

Media - Test: Air/Gas; Certified: Air, Gas

Set Pressure Definition(1): Pop; (2): Initial Audible Discharge

Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.205 in ²	[D] 0.674 in	0.079 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.356 in²	[E] 0.674 in	0.137 in	15-15000 psi	Air	UV
1.5 NPS	2, 3 NPS	0.831 in²	[G] 1.078 in	0.241 in	15-10600 psi	Air	UV
2 NPS	3 NPS	0.85 in ²	[G] 1.38 in	0.191 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.312 in ²	[H] 1.38 in	0.295 in	15-15000 psi	Air	UV
3 NPS	4 NPS	3.043 in ²	[K] 2.055 in	0.461 in	15-10600 psi	Air	UV
3 NPS	3 NPS	2.132 in ²	[J] 2.055 in	0.323 in	15-10600 psi	Air	UV

4 NPS	6 NPS	4.729 in ²	[L] 3.12 in	0.477 in	15-10600 psi	Air	UV		
4 NPS	6 NPS	5.959 in ²	[M] 3.12 in	0.601 in	15-10600 psi	Air	UV		
4 NPS	6 NPS	7.188 in ²	[N] 3.12 in	0.725 in	15-10600 psi	Air	UV		
6 NPS	8, 10 NPS	18.294 in²	[Q] 4.866 in	1.185 in	15-10600 psi	Air	UV		
Design Name	e: 263/269/46 6/5069	63/469/566/	863/869/963/969	9/506 NBCert #	¥ 01315				
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date			
Assembler			UV		30	8/27/2024			
Design Type									
[Pilot Operated F Capacity Tests: S Method of Establ Certified Value: O Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Em	[Pilot Operated Pressure Relief Valve] 263/269/463/469/566/863/869/963/969/5066/5069 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on July 30, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.860 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LB (ACC)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-10600 psi	Air	UV		
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-720 psi	Steam	UV		
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-10600 psi	Air	UV		
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-720 psi	Steam	UV		
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-10600 psi	Air	UV		
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-720 psi	Steam	UV		
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-10600 psi	Air	UV		
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-2220 psi	Steam	UV		
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-10600 psi	Air	UV		
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-720 psi	Steam	UV		
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-10600 psi	Air	UV		
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-720 psi	Steam	UV		
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-10600 psi	Air	UV		
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-720 psi	Steam	UV		
8 NPS	10 NPS	37.523 in ²	6.912 in	3.802 in	15-1480 psi	Air	UV		
8 NPS	10 NPS	37.523 in ²	6.912 in	3.802 in	15-720 psi	Steam	UV		
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-1480 psi	Air	UV		
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-720 psi	Steam	UV		
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-10600 psi	Air	UV		
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-720 psi	Steam	UV		
Design Name	Design Name: 443/449/546/843/849/943/949/5046/5049 (Liquids)								

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/27/2024

[Pilot Operated Pressure Relief Valve] 443/449/546/843/849/943/949/5046/5049(Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.767 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.21 in	15-7600 psi	Water	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.51 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.82 in	15-7600 psi	Water	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-7600 psi	Water	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.62 in	15-7600 psi	Water	UV
6 NPS	8, 10 NPS	15.904 in²	[R] 4.5 in	2.435 in	15-7600 psi	Water	UV
8 NPS	10 NPS	28.274 in ²	[T] 6 in	3.12 in	15-7600 psi	Water	UV

Design Name:

/459/853/859/953/959/5059 (Liquids) N

¥ 0132

01326

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/08/2025

Design Type

[Pilot Operated Pressure Relief Valve] 453/459/853/859/953/959/5059 (Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.491 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	UV
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	V
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	UV
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	V
1.5 NPS	2, 3 NPS	0.911 in²	[G] 1.078 in	0.264 in	15-7600 psi	Water	UV
1.5 NPS	2, 3 NPS	0.911 in²	[G] 1.078 in	0.264 in	15-7600 psi	Water	V
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	V
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	V
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	UV
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	V
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	UV
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	V

4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	UV
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	V
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	UV
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	V
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	UV
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	V
6 NPS	8, 10 NPS	15.885 in ²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	UV
6 NPS	8, 10 NPS	15.885 in ²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	V
Design Name	e: 81, 81P, 8	3, 86	_	NBCert	# 01089)	
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	
Assembler			UV		C	8/27/2024	
Design Type							
[Safety Relief Va Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er	Alve] 81, 81P, 83, 86 Sec. UV at Phillips Pe lishing Relieving Cap 0.816 Unitless r/Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation S	etroleum on Ju pacity: Flow Ca ed: Air, Gas, St e Lift olutions Final (ly 8, 1965 pacity, K eam Control US LP {AGC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-2 NPS	.75 - 2 NPS	0.012 in ²	[-2] 0.125 in	0.05 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2 NPS	0.028 in ²	[-3] 0.188 in	0.06 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-5000 psi	Air	NV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-720 psi	Steam	UV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-5000 psi	Air	NV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-9600 psi	Air	UV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-5000 psi	Air	NV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-6000 psi	Air	UV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-720 psi	Steam	UV
1.5 NPS	2 NPS	0.307 in ²	[F] 0.625 in	0.28 in	20-4040 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-6000 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-720 psi	Steam	UV
1.5-2 NPS	3 NPS	0.785 in ²	[H] 1 in	0.41 in	20-2580 psi	Air	UV
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-1620 psi	Air	UV
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-720 psi	Steam	UV
Design Name	e: 81P (Liqui	ds)		NBCert	# 01102	2	
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	
Assembler			UV		C	8/27/2024	

[Relief Valve] 81P (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on November 26, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.720 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: 93% of pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-5000 psi	Water	NV
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-6250 psi	Water	UV, V
0.75-2 NPS	1 - 2 NPS	0.11 in ²	[-6] 0.375 in	0.13 in	50-6000 psi	Water	UV, V
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-5000 psi	Water	NV
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-6000 psi	Water	UV, V
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	50-6000 psi	Water	UV, V
2-2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	50-1620 psi	Water	UV, V

Design Name: 900 Series (Liquid), 7700, SNC

NBCert #

15499

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/15/2027

Design Type

[Relief Valve] 900 Series (Liquid), 7700, SNC Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 9, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.661 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	NV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	NV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	UV, V
1-1.5 NPS	1.5 - 2 NPS	0.2951 in ²	0.613 in	0.265 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	NV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV, V
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	NV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV, V

Design Name: 900 Series, 7700, SNC NBCert # 15411								
Manufacturer//	Assembler		Designat	tors	E	Expiration Date	e	
Assembler			UV		0	8/27/2024		
Design Type								
[Safety Relief Valve] 900 Series, 7700, SNC Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on February 14, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV	
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-2900 psi	Steam	NV, UV	
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Air	UV	
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-2900 psi	Steam	NV, UV	
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Air	UV	
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-2900 psi	Steam	NV, UV	
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-2900 psi	Steam	NV, UV	
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Air	UV	
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-2900 psi	Steam	NV, UV	
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Air	UV	
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-2900 psi	Steam	NV, UV	

Design Name: JLT/JLT-JDS (Liquids)	NBCert # 150	95
Manufacturor/Accomblor	Decimatore	Evaluation Data
Manulacturen/Assembler	Designators	Expiration Date

0.274 in

15-5000 psi

Air

UV

Design Type

1.5 NPS

2.5 NPS

[Safety Relief Valve] JLT/JLT-JDS (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 5, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.656 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

0.5674 in²

[#9] 0.85 in

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	NV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	UV, V

1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	NV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	NV
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	NV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	UV, V
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	NV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	UV, V
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	NV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	UV, V
3 NPS	4-6 NPS	2.109 in ²	1.639 in	0.632 in	15-3705 psi	Water	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	NV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	UV, V
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	NV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	UV, V
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	NV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	NV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	1.232 in	15-1500 psi	Water	UV, V
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Water	UV, V
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	NV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	UV, V
8 NPS	10, 12 NPS	29.359 in ²	[T] 6.114 in	2.361 in	15-740 psi	Water	NV
8 NPS	10, 12 NPS	29.359 in ²	[T] 6.114 in	2.361 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	NV

Design Name:

I-JOS/JLI-JBS/JLI-JDS, 8500, ACL/ABLNE

15512

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/27/2024

Design Type

[Safety Relief Valve] JLT-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABL Capacity Tests: Sec. UV at Crosby Valve, LLC on June 28, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.870 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Air	UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Air	UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Air	UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Air	UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Air	UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Air	UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Air	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Air	UV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Air	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Air	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Air	UV
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Air	UV

Design Name:

JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS- NBCert #

_, •.•••, •.••		
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/15/2027

Design Type

[Safety Relief Valve] JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-E, 8400, AC/AB Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on April 1, 1975

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.865 Unitless

Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam

Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Single Ring)

Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in²	[D] 0.398 in	0.121 in	15-15000 psi	Air	NV, UV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.121 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2 - 3 NPS	0.187 in²	0.488 in	0.151 in	15-2000 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.187 in²	0.488 in	0.151 in	15-8490 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-15000 psi	Air	NV, UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-15000 psi	Air	NV, UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-2000 psi	Steam	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in²	[G] 0.85 in	0.265 in	15-15000 psi	Air	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in²	[G] 0.85 in	0.265 in	15-2000 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.8874 in²	[H] 1.063 in	0.331 in	15-15000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.8874 in²	[H] 1.063 in	0.331 in	15-2000 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-10000 psi	Air	NV, UV

2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-2000 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-10000 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-2000 psi	Steam	NV, UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-1000 psi	Steam	NV, UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-3000 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-2000 psi	Steam	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-5000 psi	Air	NV, UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-2000 psi	Steam	NV, UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-5000 psi	Air	NV, UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-1480 psi	Steam	NV, UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-3000 psi	Air	NV, UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Air	NV, UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Steam	NV, UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.945 in	15-1480 psi	Steam	NV, UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.945 in	15-3000 psi	Air	NV, UV
6 NPS	8 NPS	11.045 in ²	3.75 in	1.243 in	15-1000 psi	Steam	NV, UV
6 NPS	8 NPS	11.045 in ²	3.75 in	1.243 in	15-3750 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Steam	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Air	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-1480 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-3000 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Steam	NV, UV
8 NPS	10 NPS	18.254 in ²	4.821 in	1.907 in	15-2250 psi	Air	NV, UV
8 NPS	10 NPS	18.254 in ²	4.821 in	1.907 in	15-2250 psi	Steam	NV, UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	1.907 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	29.359 in²	[T] 6.114 in	1.907 in	15-740 psi	Steam	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Steam	NV, UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Air	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Steam	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Air	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Steam	UV
MOTOYAMA ENGINEERING WORKS, LTD. (MTY)

Kurokawa-gun, Miyagi-Ken, 981-3967Japan

This Company Manufactures or Assembles:

Design Nam	e: 900 (Air, 0	Gas and Ste	eam)	NBCert	# 40093			
Manufacturer/Assembler Designators Expiration Date							•	
Manufacturer			UV		04	4/10/2025		
Design Type								
[Safety Relief Valve] 900 (Air, Gas and Steam) Capacity Tests: Sec. UV at Crosby Valve, LLC on July 28, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: MOTOYAMA ENGINEERING WORKS, LTD. {MTY}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.0845 in²	[#5] 0.328 in	0.106 in	15-10000 psi	Air	UV	
0.5-1 NPS	1 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-2900 psi	Steam	UV	
0.75-1 NPS	1, 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Air	UV	
0.75-1 NPS	1, 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-2900 psi	Steam	UV	
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-2900 psi	Steam	UV	
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Air	UV	
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-2900 psi	Steam	UV	
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Air	UV	
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-2900 psi	Steam	UV	
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Air	UV	
Design Nam	Design Name: 900 (Liquids) NBCert # 40105							
Manufacturer/Assembler Designators Expiration Date						•		
Manufacturer UV 04/10/2025								
Design Type								
[Safety Relief Valve] 900 (Liquids) Capacity Tests: Sec. UV at Crosby Valve, LLC on July 28, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.661 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: First d								

Flow Area Configuration: Nozzle/Full Lift Designed by: MOTOYAMA ENGINEERING WORKS, LTD. {MTY}

1 NPS 0.045 in' (#5) 0.328 in 0.106 in 15-1000 pai Water UV 1-15 NPS 1.5 NPS 0.219 in (#7) 0.529 in 0.171 in 15-000 pai Water UV 1-5 NPS 2.5 NPS 0.667 AI (#0) 0.85 in 0.215 in 15-000 pai Water UV 1.5 NPS 2.5 NPS 0.667 AI (#0) 0.85 in 0.215 in 15-000 pai Water UV 1.6 NPS 2.5 NPS 0.667 AI (#0) 0.85 in 0.215 in 15-000 pai Water UV NOTE: NO	Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS 1, 1, 5 NPS 0, 2124 in ² (P6) 0.388 in 0, 128 in 15-0000 pai Water UV 1-1.5 NPS 2, NPS 0, 2473 in ² (P6) 0.665 in 0, 216 in 15-5000 pai Water UV 1.5 2, NPS 0, 5674 in ² (P6) 0, 85 in 0, 274 in 15-5000 pai Water UV Design Name: H (HS, HSA, HC, HCA, HJ) NBCert # 40004 Mandecturer U, V, V 0, V 0, 10, 2025 Mandecturer/Lange N, NC, CA, NJ, NC, NC, NC, NC, NC, NC, NC, NC, NC, NC	0.5-1 NPS	1 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	UV
1-5. NPS 1.5 NPS 0.2198 in* (#7) 0.529 in 0.17 in 15-600 pil Water UV 1.5 NPS 2 NPS 0.5674 in* (#9) 0.85 in 0.274 in 15-5000 pil Water UV NBCert # 20004 Designator Explation Date NBCert # 20004 Note: # 20004 Note: # 20004 Note: # 20004 Designator Explation Date Note: # 20004 OPTIME Statute (Note: Note: Note	0.75-1 NPS	1, 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	UV
1.5.2 NPS 2 NPS 0.3473 in* (M8) 0.665 in 0.215 in 15.6000 pil Water UV 1.5 NPS 2.5 NPS 0.5674 in* (M9) 0.85 in 0.274 in 15.6000 pil Water UV NBCort # 40001 NBCort # 40001 Manufacturer Explicit Date Manufacturer Explicit Date Note: # 40001 Note: # 40001 Manufacturer Explicit Date Manufacturer Explicit Date Note: # 40001 Note: # 40001 Statuter Valuer (HE) HARALCHCA HD Manufacturer (HE) HARALCHCA HD Water (HE) HARALCHCA HD Note: # 40000 Statuter (HE) HARALCHCA HD Manufacturer (HE) HARALCHCA HD Statuter (HE) HARALCHCA HD Outlet Size (HE) MARALCHCA HD Outlet	1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	UV
1.5 NPS 2.5 NPS 0.574 in* (M9) 0.51 m 0.274 in 15-500 pei Water UV NBCert JOURS NBCert JOURS Manufacturer/Leg International Colspan="6">Note::::::::::::::::::::::::::::::::::::	1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV
Design Name: H (HS, HSA, HC, HCA, HJ) NBCort.# 40004 Manufacturer/LAssembler Designators Expiration Dato Manufacturer/LAssembler UV, V 04/10/2025 Design Type Estign Status UV, V 04/10/2025 Edaty Marging Pleims: Sec. UV, V at Crosby Valve, LLC on November 10, 1980 Sec. VV at Crosby Valve, LLC on November 10, 1980 Merdia: Tests: Sec. UV, V at Crosby Valve, LLC on November 10, 1980 Set Sec. VV at Crosby Valve, LLC on November 10, 1980 Merdia: Test: Steam: Set Version: Pleims: Sec. VV at Crosby Valve, LLC on November 10, 1980 Blowdown Characteristics: Adjustable (Dual Ring) Encore Addition: Prop Media Designator Blowdown Characteristics: Adjustable (Dual Ring) Encore Addition: Prop Media Designator 0.5-1.5 NPS 2.3 NPS 0.122 in* 0.394 in 0.098 in 15-500 psi Steam V 1.5-2 NPS 2.5 NPS 0.338 in* F[0.656 in 0.164 in 15-3100 psi Steam V 1.5-2 NPS 3.6 NPS 1.421 in* U 1.345 in 0.336 in 15-3100 psi Steam V	1.5 NPS	2.5 NPS	0.5674 in²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV
Manufacturer//Assembler Designators Expiration Date Manufacturer UV. V 04/10/2025 Design Type UV. V 04/10/2025 Design Type UV. V 04/10/2025 Design Type UV. V UV. V Design Type UV. V UV. V Design Type UV. V UV. V Design Type UV. V UV. V UV. V Design Type UV. V UV. V UV. V Design Type UV. V UV. V UV. V UV. V Design type UV. V C (Croby Valve, LLC on November 10, 1980 V V V Design type Outlet Size Flow Area Orifice (Besignator) (dia. Lift Set Pressure Range Media Designator D.75-15 NPS 2 -3 NPS 0.120 in? 0.394 in 0.098 in 15-500 psi Steam V 1.52 NPS 2 -5 NPS 0.516 in? 0.131 in 15-500 psi Steam V 1.52 NPS 2 -5 NPS 0.541 in? [9] 1.656 in	Design Nam	e: H (HS,HS	A,HC,HCA,	HJ)	NBCert	# 40004	Ļ	
Manufacturer UV, V O4/10/2025 Design Type Estery Valve, H (HS, HS, HC, HCA, H.)) Copacity Tests, Sec. UV, V at Creaby Valve, LLC on November 10, 1980 Method of Estabilishing Releiving Capacity, Flow Capacity, K Set Pressure Definition 'Page Set Pressure Definition 'Page Biodrow (Target Area Configuration: Nozzde/Full LIT Flow Area Configuration: Nozzde/Full LIT Media Designator Pesignet Dy: MCTOYAMA ENGINEETING WORKS, LTD. (MTY) 0.394 in 0.098 in 15:500 psi Steam V 1-2 NPS 2.3 NPS 0.216 in* 0.394 in 0.098 in 15:500 psi Steam V 1-2 NPS 2.3 NPS 0.216 in* 0.554 in* 0.131 in 15:500 psi Steam V 1-52 NPS 2.5 NPS 0.388 in? [F] 0.656 in 0.164 in 15:3100 psi Steam V 1.52 NPS 3.4 NPS 0.866 in? [H] 1.05 in 0.262 in 15:3100 psi Steam V 2.25 NPS 3.4 NPS 0.866 in? [H] 1.05 in 0.338 in 15:3100 psi Steam V 2.54 NPS 6	Manufacturer/	Assembler		Designat	ors	E	expiration Date	•
Design Type Carlety Valve) H (HS,HSA,HC,HA, HJ) Capacity Tesk See, UV, V at Crosby Valve, LLC on November 10, 1980 Method 12 Establishing Relieving Capacity, Flow Capacity, K Carlfied Value: 0.315 Unitess Media - Tesk: Steam, Carlfied: Steam Beomy Carlfied Value: 0.018 (Ring) Biomotown Characteristics. Adjustable (Dual Ring) Flow Area Conflicting: Plow Area Orifica Beomy Characteristics. Adjustable (Dual Ring) Flow Area Conflicting: Plow Area Orifica (Eastignator) rdl. Lift Set Pressure Range Media Designator 0.51.5 NPS 2 - 3 NPS 0.122 in ² 0.394 in 0.098 in 15-500 psi Steam V 1-2 NPS 2.2.5 NPS 0.338 in ² [F] 0.656 in 0.164 in 15-3100 psi Steam V 1-2 NPS 2.5.5 NPS 0.388 in ² [F] 0.656 in 0.164 in 15-3100 psi Steam V 1-5.2 NPS 2.4 NPS 0.656 in ³ 0.113 in 15-3100 psi Steam V 1-5.2 NPS 3.4 NPS 0.666 in ³ 1.141 in ³ 0.336 in 1.21 in 15-3100 psi Steam V 2-5.5 NPS 3.4 NPS 0.686 in ³ [H] 1.05 in 0.262 in 15-3100 psi Steam V	Manufacturer			UV, V		0	4/10/2025	
ISately Valve) H (HS HSAHCHCA HJ) Capacity Tests Sec. UV, V at Crosby Valve, LL C on November 10, 1980 Method 7 Establishing Relieving Capacity: Flow Capacity, K Carrified Value. 0315 Unitiaes Media 1 Test: Steam. Carrified: Steam Ster Pressure Delintion: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Conflicted: Steam Steam Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Conflicted: Steam Steam Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Conflicted: Steam Steam Conflicted: Steam Steam Distribution: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Conflicted: Steam Steam V 0.75-1.5 NPS 2 -3 NPS 0.122 in ² 0.394 in 0.098 in 15-500 psi Steam V 0.75-1.5 NPS 2 -3 NPS 0.122 in ² 0.394 in 0.098 in 15-500 psi Steam V 0.75-1.5 NPS 2 -3 NPS 0.216 in ² 0.525 in 0.131 in 15-500 psi Steam V 0.75-1.5 NPS 2 -3 NPS 0.554 in ² (G) 0.84 in 0.21 in 15-3100 psi Steam V 1.52 NPS 2, 5 -3 NPS 0.554 in ² (G) 0.84 in 0.21 in 15-3100 psi Steam V 1.52 NPS 3, 4 NPS 0.866 in ² (H] 1.05 in 0.262 in 15-3100 psi Steam V 2.25.5 NPS 3 -6 NPS 1.421 in ² (J) 1.45 in 0.262 in 15-3100 psi Steam V 2.5.3 NPS 6 NPS 2.031 in ² (K] 1.608 in 0.402 in 15-3100 psi Steam V 2.5.4 NPS 6 NPS 2.031 in ² (K] 1.608 in 0.402 in 15-3100 psi Steam V 2.5.4 NPS 6 NPS 2.031 in ² (K] 1.008 in 0.402 in 15-3100 psi Steam V 2.5.4 NPS 6 NPS 3.145 in ² (L] 2.001 in 0.5 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.145 in ² (M] 2.449 in 0.617 in 15-3100 psi Steam V 3.4 NPS 6 NPS 7.031 in ² (P] 2.922 in 0.59 in 15-3100 psi Steam V 4.6 NPS 6 -10 NPS 4.788 in ³ (N] 2.49 in 0.617 in 15-3100 psi Steam V 4.6 NPS 7.031 in ² (P] 2.922 in 0.748 in 15-1500 psi Steam V 4.6 NPS 8.10 NPS 1.2174 in ³ (O) 3.937 in 0.984 in 15-1500 psi Steam V 6 NPS 8.10 NPS 1.2174 in ³ (O) 3.937 in 0.984 in 15-1500 psi Steam V 8 NPS 1.0 NPS 2.624 H ² (H] 0.337 in 0.984 in 15-1500 psi Steam V 8 NPS 1.0 NPS 2.624 H ² (H] 0.337 in 0.984 in 15-1500 psi Steam V 8 NPS 1.0 NPS 2.624 H ² (H] 0.337 in 0.984 in	Design Type							
Inter SizeFlow AreOrffice Clesignator dia.LiftSet Presure RangeMediaDesignator0.51.5 NPS2 - 3 NPS0.122 in²0.394 in0.098 in15-500 psiSteamV0.75-1.5 NPS2 - 3 NPS0.216 in²0.525 in0.131 in15-500 psiSteamV1-2 NPS2.5 NPS0.338 in²[F] 0.656 in0.164 in15-3100 psiSteamV1-52 NPS2.5 NPS0.554 in²[G] 0.84 in0.21 in15-3100 psiSteamV1-52 NPS3.4 NPS0.866 in²[H] 1.05 in0.262 in15-3100 psiSteamV2-25 NPS3.4 NPS0.866 in²[H] 1.05 in0.336 in15-3100 psiSteamV2-53 NPS4.6 NPS1.421 in²[J] 1.34 in0.336 in15-3100 psiSteamV2-54 NPS6 NPS2.031 in²[K] 1.608 in0.402 in15-3100 psiSteamV2-54 NPS6 NPS3.145 in²[J] 2.011 in0.5in15-3100 psiSteamV3-4 NPS6 NPS3.45 in²[H] 2.322 in0.59i in15-3100 psiSteamV3-4 NPS6 NPS4.382 in²[M] 2.469 in0.617 in15-3100 psiSteamV4-6 NPS6.10 NPS4.788 in²[N] 2.469 in0.617 in15-3100 psiSteamV4-6 NPS6.10 NPS1.763 in²[R] 4.739 in1.184 in15-1500 psiSteamV6 NPS8.10 NPS2.624 in²	[Safety Valve] H (HS,HSA,HC,HCA, HJ) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on November 10, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.815 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: MOTOYAMA ENGINEERING WORKS LTD. (MTY)							
0.5.1.5 NPS 2.3 NPS 0.122 in² 0.394 in 0.098 in 15-500 psi Steam V 0.75-1.5 NPS 2.3 NPS 0.216 in² 0.525 in 0.131 in 15-500 psi Steam V 1-2 NPS 2.25 NPS 0.338 in² (F) 0.65 in 0.164 in 15-3100 psi Steam V 1.5-2 NPS 2.5-3 NPS 0.554 in² (G) 0.84 in 0.21 in 15-3100 psi Steam V 1.5-2 NPS 3.4 NPS 0.866 in² (H) 1.05 in 0.262 in 15-3100 psi Steam V 2.5-3 NPS 4.6 NPS 2.031 in² (K] 1.60 in 0.402 in 15-3100 psi Steam V 2.54 NPS 6 NPS 2.806 in² (K] 1.80 in 0.402 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.456 in² [U 2.27 in 0.561 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.456 in² [U 2.23 in 0.561 in 15-3100 psi Steam V 3.4 NPS 6 NPS 7.031 in² [P] 2.99 in 0.671 in 15-1500 psi Steam	Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS 2.3 NPS 0.216 in² 0.525 in 0.131 in 15-50 psi Steam V 1-2 NPS 2.25 NPS 0.338 in² [F] 0.656 in 0.164 in 15-3100 psi Steam V 1.52 NPS 2.5 - 3 NPS 0.554 in² [G] 0.84 in 0.21 in 15-3100 psi Steam V 1.52 NPS 3.4 NPS 0.866 in² [H] 1.05 in 0.262 in 15-3100 psi Steam V 2.5.5 NPS 3.4 NPS 0.866 in² [H] 1.345 in 0.336 in 15-3100 psi Steam V 2.5.5 NPS 4 - 6 NPS 2.031 in² [K] 1.608 in 0.402 in 15-3100 psi Steam V 2.5.4 NPS 6 NPS 2.806 in² [K] 2.01 in 0.51 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.145 in² [L] 2.01 in 0.561 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.965 in² [M] 2.247 in 0.561 in 15-3100 psi Steam V 4.4 NPS 6 NPS 7.031 in² [P] 2.992 in 0.617 in 15-3100 psi S	0.5-1.5 NPS	2 - 3 NPS	0.122 in ²	0.394 in	0.098 in	15-500 psi	Steam	V
1-2 NPS 2,2 5 NPS 0.338 in² [F] 0.656 in 0.164 in 15-3100 psi Steam V 1.5-2 NPS 2,5 - 3 NPS 0.554 in² [G] 0.84 in 0.21 in 15-3100 psi Steam V 1.5-2 NPS 3,4 NPS 0.866 in² [H] 1.05 in 0.262 in 15-3100 psi Steam V 2-2.5 NPS 3 - 6 NPS 1.421 in² [J] 1.345 in 0.336 in 15-3100 psi Steam V 2.5-3 NPS 4 - 6 NPS 2.031 in² [K] 1.608 in 0.402 in 15-3100 psi Steam V 2.5-4 NPS 6 NPS 2.806 in² [K2] 1.80 in 0.402 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.145 in² [J] 2.01 in 0.51 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.965 in² [M] 2.247 in 0.561 in 15-3100 psi Steam V 4.4 NPS 6 NPS 7.031 in² [P] 2.92 · L 0.617 in 15-3100 psi Steam V 4.NPS 6 NPS 7.031 in² [P] 2.92 · L 0.748 in 15-5100 psi <t< td=""><td>0.75-1.5 NPS</td><td>2 - 3 NPS</td><td>0.216 in²</td><td>0.525 in</td><td>0.131 in</td><td>15-500 psi</td><td>Steam</td><td>V</td></t<>	0.75-1.5 NPS	2 - 3 NPS	0.216 in ²	0.525 in	0.131 in	15-500 psi	Steam	V
1.5-2 NPS 2.5 - 3 NPS 0.554 in ² [G] 0.84 in 0.21 in 15-3100 psi Steam V 1.5-2 NPS 3.4 NPS 0.866 in ² [H] 1.05 in 0.262 in 15-3100 psi Steam V 2-2.5 NPS 3 - 6 NPS 1.421 in ² [J] 1.345 in 0.336 in 15-3100 psi Steam V 2.5.3 NPS 4 - 6 NPS 2.031 in ² [K] 1.608 in 0.402 in 15-3100 psi Steam V 2.5.4 NPS 6 NPS 2.806 in ² [K2] 1.89 in 0.472 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.145 in ² [L] 2.001 in 0.5 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.965 in ² [M] 2.247 in 0.561 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.965 in ² [M] 2.2427 in 0.561 in 15-3100 psi Steam V 4.4 NPS 6 NPS 7.031 in ² [N] 2.469 in 0.617 in 15-3100 psi Steam V 6 NPS 7.031 in ² [P] 2.992 in 0.748 in 15-1500 psi Ste	1-2 NPS	2, 2.5 NPS	0.338 in ²	[F] 0.656 in	0.164 in	15-3100 psi	Steam	V
1.5-2 NPS 3, 4 NPS 0.866 in² [H] 1.05 in 0.262 in 15-3100 psi Steam V 2.2.5 NPS 3 - 6 NPS 1.421 in² [J] 1.345 in 0.336 in 15-3100 psi Steam V 2.5.3 NPS 4 - 6 NPS 2.031 in² [K] 1.608 in 0.402 in 15-3100 psi Steam V 2.5.4 NPS 6 NPS 2.806 in² [K2] 1.89 in 0.472 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.145 in² [L] 2.01 in 0.51 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.965 in² [M] 2.247 in 0.561 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.965 in² [M] 2.362 in 0.59 in 15-3100 psi Steam V 4.4 NPS 6 NPS 7.031 in² [P] 2.992 in 0.617 in 15-3100 psi Steam V 6 NPS 7.031 in² [P] 2.992 in 0.748 in 15-1500 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-1500 psi Steam V	1.5-2 NPS	2 .5 - 3 NPS	0.554 in ²	[G] 0.84 in	0.21 in	15-3100 psi	Steam	V
2-2.5 NPS 3 - 6 NPS 1.421 in² [J] 1.345 in 0.336 in 15-3100 psi Steam V 2.5-3 NPS 4 - 6 NPS 2.031 in² [K] 1.608 in 0.402 in 15-3100 psi Steam V 2.5-4 NPS 6 NPS 2.806 in² [K2] 1.89 in 0.472 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.145 in² [L] 2.001 in 0.5 in 15-3100 psi Steam V 3 NPS 6 NPS 3.965 in² [M] 2.247 in 0.561 in 15-3100 psi Steam V 3.4 NPS 6 NPS 4.382 in² [M2] 2.362 in 0.59 in 15-3100 psi Steam V 4.4 NPS 6 NPS 7.031 in² [P] 2.992 in 0.748 in 15-1500 psi Steam V 4 NPS 8 NPS 12.174 in² [Q] 3.937 in 0.984 in 15-1500 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [T] 6.037 in 1.509 in 15-500 psi Steam V 6 NPS 10 NPS 28.624 in² [T] 6.037 in 1.509 in 15-500 psi Steam	1.5-2 NPS	3, 4 NPS	0.866 in ²	[H] 1.05 in	0.262 in	15-3100 psi	Steam	V
2.5-3 NPS 4 - 6 NPS 2.031 in² [K] 1.608 in 0.402 in 15-3100 psi Steam V 2.5-4 NPS 6 NPS 2.806 in² [K2] 1.89 in 0.472 in 15-3100 psi Steam V 3-4 NPS 6 NPS 3.145 in² [L] 2.001 in 0.5 in 15-3100 psi Steam V 3 NPS 6 NPS 3.965 in² [M] 2.247 in 0.561 in 15-3100 psi Steam V 3 4 NPS 6 NPS 4.382 in² [M] 2.247 in 0.561 in 15-3100 psi Steam V 3 4 NPS 6 NPS 4.382 in² [M] 2.469 in 0.617 in 15-3100 psi Steam V 4 6 NPS 6 - 10 NPS 4.788 in² [N] 2.469 in 0.617 in 15-3100 psi Steam V 6 NPS 7.031 in² [P] 2.992 in 0.748 in 15-1500 psi Steam V 6 NPS 8 NPS 12.174 in² [Q] 3.937 in 0.984 in 15-1200 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-500 psi Steam V <td>2-2.5 NPS</td> <td>3 - 6 NPS</td> <td>1.421 in²</td> <td>[J] 1.345 in</td> <td>0.336 in</td> <td>15-3100 psi</td> <td>Steam</td> <td>V</td>	2-2.5 NPS	3 - 6 NPS	1.421 in ²	[J] 1.345 in	0.336 in	15-3100 psi	Steam	V
2.5-4 NPS 6 NPS 2.806 in² [K2] 1.89 in 0.472 in 15-3100 psi Steam V 3.4 NPS 6 NPS 3.145 in² [L] 2.001 in 0.5 in 15-3100 psi Steam V 3 NPS 6 NPS 3.965 in² [M] 2.247 in 0.561 in 15-3100 psi Steam V 3 4 NPS 6 NPS 4.382 in² [M] 2.247 in 0.591 in 15-3100 psi Steam V 3 4 NPS 6 NPS 4.382 in² [M] 2.262 in 0.59 in 15-3100 psi Steam V 4-6 NPS 6 -10 NPS 4.788 in² [N] 2.469 in 0.617 in 15-3100 psi Steam V 4 NPS 6 NPS 7.031 in² [P] 2.992 in 0.748 in 15-1500 psi Steam V 6 NPS 8 NPS 12.174 in² [Q] 3.937 in 0.984 in 15-1500 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-1500 psi Steam V	2.5-3 NPS	4 - 6 NPS	2.031 in ²	[K] 1.608 in	0.402 in	15-3100 psi	Steam	V
34 NPS 6 NPS 3.145 in² [L] 2.001 in 0.5 in 15-3100 psi Steam V 3 NPS 6 NPS 3.965 in² [M] 2.247 in 0.561 in 15-3100 psi Steam V 3 4 NPS 6 NPS 4.382 in² [M] 2.362 in 0.59 in 15-3100 psi Steam V 4-6 NPS 6 -10 NPS 4.788 in² [N] 2.469 in 0.617 in 15-3100 psi Steam V 4 NPS 6 NPS 7.031 in² [P] 2.992 in 0.617 in 15-1500 psi Steam V 6 NPS 8 NPS 12.174 in² [Q] 3.937 in 0.984 in 15-1500 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-1200 psi Steam V 8 NPS 10 NPS 28.624 in² [T] 6.037 in 1.509 in 15-500 psi Steam V Everiter JLT-JNB (Liquids) NBCert # June Steam V Manufacture/Active JLT-JND, JLT-JNB (Liquids) JLT Manufacture/Active Steam V UV<	2.5-4 NPS	6 NPS	2.806 in ²	[K2] 1.89 in	0.472 in	15-3100 psi	Steam	V
3 NPS 6 NPS 3.965 in² [M] 2.247 in 0.561 in 15-3100 psi Steam V 3.4 NPS 6 NPS 4.382 in² [M2] 2.362 in 0.59 in 15-3100 psi Steam V 4.6 NPS 6 - 10 NPS 4.788 in² [N] 2.469 in 0.617 in 15-3100 psi Steam V 4 NPS 6 NPS 7.031 in² [P] 2.992 in 0.748 in 15-1500 psi Steam V 6 NPS 8 NPS 12.174 in² [Q] 3.937 in 0.984 in 15-1500 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-1200 psi Steam V 8 NPS 10 NPS 28.624 in² [T] 6.037 in 1.509 in 15-500 psi Steam V Opesign Name: JLT-JNO, JLT-JNB (Liquids) NBCert # 40015 Manufacturer/Assembler UV O4/10/2025	3-4 NPS	6 NPS	3.145 in ²	[L] 2.001 in	0.5 in	15-3100 psi	Steam	V
3-4 NPS 6 NPS 4.382 in² [M2] 2.362 in 0.59 in 15-3100 psi Steam V 4-6 NPS 6 - 10 NPS 4.788 in² [N] 2.469 in 0.617 in 15-3100 psi Steam V 4 NPS 6 NPS 7.031 in² [P] 2.992 in 0.748 in 15-1500 psi Steam V 6 NPS 8 NPS 12.174 in² [Q] 3.937 in 0.984 in 15-1500 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-1200 psi Steam V 8 NPS 10 NPS 28.624 in² [T] 6.037 in 1.509 in 15-500 psi Steam V NBCert # 40015***********************************	3 NPS	6 NPS	3.965 in ²	[M] 2.247 in	0.561 in	15-3100 psi	Steam	V
4-6 NPS 6 - 10 NPS 4.788 in² [N] 2.469 in 0.617 in 15-3100 psi Steam V 4 NPS 6 NPS 7.031 in² [P] 2.992 in 0.748 in 15-1500 psi Steam V 6 NPS 8 NPS 12.174 in² [Q] 3.937 in 0.984 in 15-1500 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-1200 psi Steam V 8 NPS 10 NPS 28.624 in² [T] 6.037 in 1.509 in 15-500 psi Steam V NBCert # 400 ¹ Image: Steam V Image: Steam V NBCert # 400 ¹ Image: Steam V Image: Steam V NBCert # 400 ¹ Image: Steam V Image: Steam V Manufacturer/Assembler Design Image: Steam V Image: Steam V Image: Steam V Stexpiration Steam V	3-4 NPS	6 NPS	4.382 in ²	[M2] 2.362 in	0.59 in	15-3100 psi	Steam	V
4 NPS 6 NPS 7.031 in² [P] 2.99 ⊥ 0.748 in 15-1500 psi Steam V 6 NPS 8 NPS 12.174 in² [Q] 3.937 in 0.984 in 15-1500 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-1200 psi Steam V 8 NPS 10 NPS 28.624 in² [T] 6.037 in 1.509 in 15-500 psi Steam V NBCert # 40015	4-6 NPS	6 - 10 NPS	4.788 in ²	[N] 2.469 in	0.617 in	15-3100 psi	Steam	V
6 NPS 8 NPS 12.174 in² [Q] 3.937 in 0.984 in 15-1500 psi Steam V 6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-1200 psi Steam V 8 NPS 10 NPS 28.624 in² [T] 6.037 in 1.509 in 15-500 psi Steam V Design Name: JLT-JNO, JLT-JNB (Liquids) NBCert # 40015 Manufacturer/ V UV 04/10/2025	4 NPS	6 NPS	7.031 in ²	[P] 2.992 in	0.748 in	15-1500 psi	Steam	V
6 NPS 8, 10 NPS 17.639 in² [R] 4.739 in 1.184 in 15-1200 psi Steam V 8 NPS 10 NPS 28.624 in² [T] 6.037 in 1.509 in 15-500 psi Steam V Design Name: JLT-JNO, JLT-JNB (Liquids) NBCert # 400 J Manufacturer/Assembler Designators Expiration Date Manufacturer V	6 NPS	8 NPS	12.174 in²	[Q] 3.937 in	0.984 in	15-1500 psi	Steam	V
8 NPS 10 NPS 28.624 in² [T] 6.037 in 1.509 in 15-500 psi Steam V Design Name: JLT-JNO, JLT-JNB (Liquids) NBCert # 400 J 400 J 1000 J	6 NPS	8, 10 NPS	17.639 in²	[R] 4.739 in	1.184 in	15-1200 psi	Steam	V
Design Name: JLT-JNO, JLT-JNB (Liquids) Manufacturer/Assembler Designators Manufacturer UV 04/10/2025	8 NPS	10 NPS	28.624 in ²	[T] 6.037 in	1.509 in	15-500 psi	Steam	V
Manufacturer/AssemblerDesignatorsExpiration DateManufacturerUV04/10/2025	Design Nam	e: JLT-JNO,	JLT-JNB (L	.iquids)	NBCert	# 40015	5	
Manufacturer UV 04/10/2025	Manufacturer/	Assembler		Designat	ors	E	xpiration Date)
	Manufacturer			UV		0	4/10/2025	

1.5-2 NPS

2.5, 3 NPS

0.5674 in²

[G] 0.85 in

[Relief Valve] JLT-JNO, JLT-JNB (Liquids) Capacity Tests: Sec. UV at Crosby Valve, LLC on August 10, 1987 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.658 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: MOTOYAMA ENGINEERING WORKS, LTD. {MTY}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	1 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-10000 psi	Water	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-7500 psi	Water	UV
1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-5000 psi	Water	UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-3600 psi	Water	UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-2750 psi	Water	UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-2700 psi	Water	UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-2160 psi	Water	UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-1500 psi	Water	UV
4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-1100 psi	Water	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1000 psi	Water	UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	1.169 in	15-1000 psi	Water	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-600 psi	Water	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-300 psi	Water	UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	2.361 in	15-120 psi	Water	UV

Design Name: JNO/JNB Manufacturer/Assembler Designators **Expiration Date** UV 04/10/2025 Manufacturer Design Type [Safety Relief Valve] JNO/JNB Capacity Tests: Sec. UV at Crosby Valve, LLC on August 13, 1982 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.862 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: MOTOYAMA ENGINEERING WORKS, LTD. {MTY} Set Pressure Orifice **Inlet Size Outlet Size** Flow Area Lift Media Designator [designator] dia. Range 15-2900 psi 0.75-1.5 NPS 1 - 3 NPS 0.1244 in² Steam UV [D] 0.398 in 0.117 in 0.75-1.5 NPS UV 1 - 3 NPS 0.1244 in² [D] 0.398 in 0.117 in 15-6000 psi Air 1-1.5 NPS 2 - 3 NPS 0.2214 in² [E] 0.531 in 0.156 in 15-2900 psi Steam UV 1-1.5 NPS 2 - 3 NPS 0.2214 in² [E] 0.531 in 0.156 in 15-6000 psi Air UV 0.347 in² UV 1.5 NPS 2 - 3 NPS [F] 0.665 in 0.196 in 15-2900 psi Steam UV 1.5 NPS 2 - 3 NPS 0.347 in² [F] 0.665 in 0.196 in 15-5000 psi Air

0.25 in

15-2900 psi

Steam

UV

1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.25 in	15-3705 psi	Air	UV
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.313 in	15-2900 psi	Air	UV
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.313 in	15-2900 psi	Steam	UV
2-3 NPS	3 ,4 NPS	1.453 in ²	[J] 1.36 in	0.4 in	15-2900 psi	Air	UV
2-3 NPS	3 ,4 NPS	1.453 in ²	[J] 1.36 in	0.4 in	15-2900 psi	Steam	UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.478 in	15-2900 psi	Air	UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.478 in	15-2900 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.596 in	15-1500 psi	Air	UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.596 in	15-1500 psi	Steam	UV
4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.669 in	15-1100 psi	Air	UV
4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.669 in	15-1100 psi	Steam	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.735 in	15-1000 psi	Air	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.735 in	15-1000 psi	Steam	UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.891 in	15-1000 psi	Air	UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.891 in	15-1000 psi	Steam	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.172 in	15-620 psi	Air	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.172 in	15-620 psi	Steam	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.411 in	15-300 psi	Air	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.411 in	15-300 psi	Steam	UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	1.798 in	15-300 psi	Air	UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	1.798 in	15-300 psi	Steam	UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.862 in	15-300 psi	Air	UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.862 in	15-300 psi	Steam	UV

Mt.H Control Valves Co., Ltd (MHC)

Gangseo-gu, Busan, 46754Republic of Korea

Design Name: SC 32	NBCert # 005	49
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/05/2028
Design Type [Safety Relief Valve] SC 32 Capacity Tests: Sec. UV at National Board Testing Lab on Mar Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.851 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Mt.H Control Valves Co., Ltd {MHC}	ch 30, 2015	

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	1-3 NPS	0.1368 in ²	[D] 0.4173 in	0.106 in	15-2900 psi	Steam	UV
0.75-1.5 NPS	1-3 NPS	0.1368 in ²	[D] 0.4173 in	0.106 in	15-6000 psi	Air	UV
1-1.5 NPS	2-3 NPS	0.2812 in ²	[E] 0.5984 in	0.15 in	15-2900 psi	Steam	UV
1-1.5 NPS	2-3 NPS	0.2812 in ²	[E] 0.5984 in	0.15 in	15-6000 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.3772 in ²	[F] 0.693 in	0.174 in	15-2900 psi	Steam	UV
1.5-2 NPS	2-3 NPS	0.3772 in ²	[F] 0.693 in	0.174 in	15-5000 psi	Air	UV
1.5-2 NPS	3 NPS	0.5945 in²	[G] 0.87 in	0.221 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.5945 in ²	[G] 0.87 in	0.221 in	15-3600 psi	Air	UV
1.5-2 NPS	3 NPS	0.9212 in ²	[H] 1.083 in	0.272 in	15-2500 psi	Steam	UV
1.5-2 NPS	3 NPS	0.9212 in ²	[H] 1.083 in	0.272 in	15-3000 psi	Air	UV
2-3 NPS	3-4 NPS	1.491 in²	[J] 1.378 in	0.346 in	15-2500 psi	Steam	UV
2-3 NPS	3-4 NPS	1.491 in ²	[J] 1.378 in	0.346 in	15-3000 psi	Air	UV
3 NPS	4-6 NPS	2.128 in ²	[K] 1.646 in	0.413 in	15-2000 psi	Steam	UV
3 NPS	4-6 NPS	2.128 in ²	[K] 1.646 in	0.413 in	15-2500 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.517 in	15-2000 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.517 in	15-2000 psi	Steam	UV
4 NPS	6 NPS	4.165 in ²	[M] 2.303 in	0.579 in	15-1500 psi	Air	UV
4 NPS	6 NPS	4.165 in ²	[M] 2.303 in	0.579 in	15-1500 psi	Steam	UV
4 NPS	6 NPS	5.063 in ²	[N] 2.539 in	0.638 in	15-1500 psi	Air	UV
4 NPS	6 NPS	5.063 in ²	[N] 2.539 in	0.638 in	15-1500 psi	Steam	UV
4 NPS	6 NPS	7.407 in ²	[P] 2.992 in	0.748 in	15-1000 psi	Steam	UV
4 NPS	6 NPS	7.407 in ²	[P] 2.992 in	0.748 in	15-1600 psi	Air	UV
6 NPS	8 NPS	13.042 in ²	[Q] 4.075 in	1.02 in	15-600 psi	Air	UV
6 NPS	8 NPS	13.042 in ²	[Q] 4.075 in	1.02 in	15-600 psi	Steam	UV
6 NPS	8-10 NPS	18.505 in²	[R] 4.488 in	1.122 in	15-600 psi	Air	UV
6 NPS	8-10 NPS	18.505 in ²	[R] 4.488 in	1.122 in	15-600 psi	Steam	UV
8 NPS	10 NPS	29.244 in²	[T] 5.984 in	1.496 in	15-300 psi	Air	UV
8 NPS	10 NPS	29.244 in²	[T] 5.984 in	1.496 in	15-300 psi	Steam	UV
10 NPS	14 NPS	47.97 in²	[U] 7.48 in	1.87 in	15-500 psi	Air	UV
10 NPS	14 NPS	47.97 in ²	[U] 7.48 in	1.87 in	15-500 psi	Steam	UV
12 NPS	16 NPS	68.96 in ²	[V] 9.055 in	2.264 in	15-500 psi	Air	UV
12 NPS	16 NPS	68.96 in ²	[V] 9.055 in	2.264 in	15-500 psi	Steam	UV
14 NPS	18 NPS	94.08 in ²	[W] 10.512 in	2.638 in	15-500 psi	Air	UV
14 NPS	18 NPS	94.08 in ²	[W] 10.512 in	2.638 in	15-500 psi	Steam	UV
16 NPS	18 NPS	103.8 in ²	[X] 11.496 in	2.753 in	15-500 psi	Air	UV
16 NPS	18 NPS	103.8 in ²	[X] 11.496 in	2.753 in	15-500 psi	Steam	UV
16 NPS	18 NPS	123.49 in ²	[Y] 12.008 in	3.102 in	15-500 psi	Air	UV
16 NPS	18 NPS	123.49 in ²	[Y] 12.008 in	3.102 in	15-500 psi	Steam	UV
18 NPS	24 NPS	155.15 in²	[Z] 13.504 in	3.368 in	15-500 psi	Air	UV

18 NPS	24 NPS	155.15 in²	[Z] 13.504 in	3.368 in	15-500 psi	Steam	UV	
20 NPS	24 NPS	191.87 in²	[Z1] 14.961 in	3.74 in	15-500 psi	Air	UV	
20 NPS	24 NPS	191.87 in ²	[Z1] 14.961 in	3.74 in	15-500 psi	Steam	UV	
Design Name	e: SC 32 (Liq	uid)		NBCert #	ŧ 00550			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Manufacturer			UV		09	/29/2027		
Design Type								
[Safety Relief Valve] SC 32 (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on March 30, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.631 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Mt.H Control Valves Co., Ltd {MHC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75-1.5 NPS	1-3 NPS	0.1368 in ²	[D] 0.4173 in	0.106 in	15-6000 psi	Water	UV	
1-1.5 NPS	2-3 NPS	0.2812 in ²	[E] 0.5984 in	0.15 in	15-6000 psi	Water	UV	
1.5-2 NPS	2-3 NPS	0.3772 in ²	[F] 0.693 in	0.174 in	15-5000 psi	Water	UV	
1.5-2 NPS	3 NPS	0.5945 in ²	[G] 0.87 in	0.221 in	15-3600 psi	Water	UV	
1.5-2 NPS	3 NPS	0.9212 in ²	[H] 1.083 in	0.272 in	15-3000 psi	Water	UV	
2-3 NPS	3-4 NPS	1.491 in ²	[J] 1.378 in	0.346 in	15-3000 psi	Water	UV	
3 NPS	4-6 NPS	2.128 in ²	[K] 1.646 in	0.413 in	15-2500 psi	Water	UV	
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.517 in	15-2000 psi	Water	UV	
4 NPS	6 NPS	4.165 in ²	[M] 2.303 in	0.579 in	15-1500 psi	Water	UV	
4 NPS	6 NPS	5.063 in ²	[N] 2.539 in	0.638 in	15-1500 psi	Water	UV	
4 NPS	6 NPS	7.407 in ²	[P] 2.992 in	0.748 in	15-1600 psi	Water	UV	
6 NPS	8 NPS	13.042 in ²	[Q] 4.075 in	1.02 in	15-600 psi	Water	UV	
6 NPS	8-10 NPS	18.505 in ²	[R] 4.488 in	1.122 in	15-600 psi	Water	UV	
8 NPS	10 NPS	29.244 in ²	[T] 5.984 in	1.496 in	15-300 psi	Water	UV	
10 NPS	14 NPS	47.97 in ²	[U] 7.48 in	1.87 in	15-500 psi	Water	UV	
12 NPS	16 NPS	68.96 in ²	[V] 9.055 in	2.264 in	15-500 psi	Water	UV	
14 NPS	18 NPS	94.08 in ²	[W] 10.512 in	2.638 in	15-500 psi	Water	UV	

Design Name: SP 32 (Liquid

BCert #

00572

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/29/2027

[Pilot Operated Pressure Relief Valve] SP 32 (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on October 14, 2014 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.782 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Mt.H Control Valves Co., Ltd {MHC}

Orifice Set Pressure **Inlet Size Outlet Size** Flow Area Lift Media Designator [designator] dia. Range 1-1.5 NPS 2 NPS 0.15 in² UV 0.162 in Water [D] 0.437 in 15-6170 psi 1-1.5 NPS 2 NPS 0.225 in² [E] 0.535 in 0.198 in 15-6170 psi Water UV 1-1.5 NPS 2 NPS 0.371 in² Water UV [F] 0.687 in 0.254 in 15-6170 psi 1.5-2 NPS 2-3 NPS 0.559 in² 0.312 in 15-6170 psi Water UV [G] 0.844 in 1.5-2 NPS 2-3 NPS 0.873 in² 0.39 in Water UV [H] 1.054 in 15-6170 psi 2-3 NPS 1.43 in² Water UV 3-4 NPS 0.5 in 15-6170 psi [J] 1.35 in 3 NPS 4 NPS 2.042 in² [K] 1.612 in 0.596 in 15-3705 psi Water UV 3-4 NPS 4.6 NPS 3.17 in² [L] 2.009 in 0.743 in 15-3705 psi Water UV 3-4 NPS 4, 6 NPS 4 in² 0.835 in 15-1480 psi Water UV [M] 2.257 in 4 NPS 6 NPS 4.822 in² [N] 2.478 in 0.917 in 15-1480 psi Water UV 4 NPS 6 NPS 7.087 in² 15-1480 psi Water UV [P] 3.004 in 1.111 in 6 NPS 8 NPS 12.27 in² Water UV [Q] 3.952 in 1.462 in 15-1480 psi 6 NPS 8 NPS 15.821 in² [R] 4.488 in 1.66 in 15-1480 psi Water UV Water UV 8 NPS 10 NPS 28.126 in² [T] 5.984 in 2.214 in 15-1480 psi 10 NPS 14 NPS 44.18 in² [V] 7.5 in 2.775 in 15-500 psi Water UV 63.62 in² **12 NPS 16 NPS** [W] 9 in 3.33 in 15-500 psi Water UV 14 NPS 18 NPS 86.785 in² [Y] 10.512 in 3.889 in 15-500 psi Water UV UV 16 NPS 20 NPS 95.38 in² [Z] 11.02 in 4.077 in 15-500 psi Water 20 NPS 16 NPS 113.1 in² [Z2] 12 in 4.44 in 15-500 psi Water UV 18 NPS 24 NPS 143.1 in² 4.994 in 15-500 psi Water UV [A] 13.498 in 20 NPS 24 NPS 176.7 in² [B] 15 in 5.55 in 15-500 psi Water UV

PCE Pacific, Inc. (TSR)

Everett, WA 98203United States

Design Name:	243/249/443/449/546/843/849 49/8043/8049	0/943/5046/50 NBCert # 012	292
Manufacturer/Assem	bler	Designators	Expiration Date
Assembler		UV	01/31/2025

[Pilot Operated Pressure Relief Valve] 243/249/443/449/546/843/849/943/5046/5049/8043/8049 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on August 8, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-720 psi	Steam	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	15-10600 psi	Air	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	25-720 psi	Steam	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-720 psi	Steam	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-10600 psi	Air	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-720 psi	Steam	UV
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-10600 psi	Air	UV
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-720 psi	Steam	UV
6 NPS	8, 10 NPS	18.597 in ²	[R] 4.866 in	2.435 in	15-10600 psi	Air	UV
6 NPS	8, 10 NPS	18.597 in ²	[R] 4.866 in	2.435 in	15-720 psi	Steam	UV
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-10600 psi	Air	UV
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-720 psi	Steam	UV
Design Name	253/259/45	53/459/853/	/859/953/959/505	^{59/80} NBCert	# 01304		

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/31/2025

Design Type

[Pilot Operated Pressure Relief Valve] 253/259/453/459/853/859/953/959/5059/8053/8059

Capacity Tests: Sec. UV at unknown lab on July 31, 1997

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.627 Unitless

Media - Test: Air/Gas; Certified: Air, Gas

Set Pressure Definition(1): Pop; (2): Initial Audible Discharge

Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.205 in ²	[D] 0.674 in	0.079 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-15000 psi	Air	UV
1.5 NPS	2, 3 NPS	0.831 in²	[G] 1.078 in	0.241 in	15-10600 psi	Air	UV
2 NPS	3 NPS	0.85 in²	[G] 1.38 in	0.191 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.312 in ²	[H] 1.38 in	0.295 in	15-15000 psi	Air	UV
3 NPS	4 NPS	3.043 in ²	[K] 2.055 in	0.461 in	15-10600 psi	Air	UV
3 NPS	3 NPS	2.132 in ²	[J] 2.055 in	0.323 in	15-10600 psi	Air	UV

4 NPS	6 NPS	4.729 in ²	[L] 3.12 in	0.477 in	15-10600 psi	Air	UV
4 NPS	6 NPS	5.959 in ²	[M] 3.12 in	0.601 in	15-10600 psi	Air	UV
4 NPS	6 NPS	7.188 in ²	[N] 3.12 in	0.725 in	15-10600 psi	Air	UV
6 NPS	8, 10 NPS	18.294 in²	[Q] 4.866 in	1.185 in	15-10600 psi	Air	UV
Design Name	e: 263/269/46 6/5069	63/469/566/	863/869/963/969	9/506 NBCert #	# 01315		
Manufacturer/A	ssembler		Designato	ors	E	cpiration Date	
Assembler			UV		01	/31/2025	
Design Type [Pilot Operated Pressure Relief Valve] 263/269/463/469/566/863/869/963/969/5066/5069 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on July 30, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.860 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-10600 psi	Air	UV
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-720 psi	Steam	UV
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-10600 psi	Air	UV
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-720 psi	Steam	UV
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-10600 psi	Air	UV
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-720 psi	Steam	UV
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-10600 psi	Air	UV
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-2220 psi	Steam	UV
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-10600 psi	Air	UV
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-720 psi	Steam	UV
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-10600 psi	Air	UV
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-720 psi	Steam	UV
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-10600 psi	Air	UV
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-720 psi	Steam	UV
8 NPS	10 NPS	37.523 in ²	6.912 in	3.802 in	15-1480 psi	Air	UV
8 NPS	10 NPS	37.523 in ²	6.912 in	3.802 in	15-720 psi	Steam	UV
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-1480 psi	Air	UV
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-720 psi	Steam	UV
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-10600 psi	Air	UV
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-720 psi	Steam	UV
Design Name	e: (Liquids)	16/843/849/	943/949/5046/50)49 NBCert‡	# <u>0133</u> 7		

(Liquius)		
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/14/2025

[Pilot Operated Pressure Relief Valve] 443/449/546/843/849/943/949/5046/5049(Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.767 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.21 in	15-7600 psi	Water	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.51 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.82 in	15-7600 psi	Water	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-7600 psi	Water	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.62 in	15-7600 psi	Water	UV
6 NPS	8, 10 NPS	15.904 in²	[R] 4.5 in	2.435 in	15-7600 psi	Water	UV
8 NPS	10 NPS	28.274 in ²	[T] 6 in	3.12 in	15-7600 psi	Water	UV

Design Name:

/459/853/859/953/959/5059 (Liquids) N

0132

01326

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/14/2025

Design Type

[Pilot Operated Pressure Relief Valve] 453/459/853/859/953/959/5059 (Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.491 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	UV
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	V
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	UV
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	V
1.5 NPS	2, 3 NPS	0.911 in²	[G] 1.078 in	0.264 in	15-7600 psi	Water	UV
1.5 NPS	2, 3 NPS	0.911 in²	[G] 1.078 in	0.264 in	15-7600 psi	Water	V
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	V
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	V
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	UV
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	V
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	UV
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	V

4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	UV
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	V
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	UV
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	V
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	UV
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	V
6 NPS	8, 10 NPS	15.885 in ²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	UV
6 NPS	8, 10 NPS	15.885 in ²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	V
Design Name	e: 463/469/5 (Liquids)	66/863/869	/963/969/5066/50	069 NBCert	# 0134	8	
Manufacturer/A	ssembler		Designate	ors	1	Expiration Date	9
Assembler			UV		(01/11/2025	
Design Type							
[Pilot Operated Pressure Relief Valve] 463/469/566/863/869/963/969/5066/5069 (Liquids) Capacity Tests: Sec. UV at Crosby Valve, LLC on August 27, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.712 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-7600 psi	Water	UV
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-7600 psi	Water	UV
3 NPS	4 NPS	6.733 in ²	2.928 in	1.315 in	15-7600 psi	Water	UV
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-7600 psi	Water	UV
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-7600 psi	Water	UV
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-7600 psi	Water	UV
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-7600 psi	Water	UV
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-7600 psi	Water	UV
Design Name: 81, 81P, 83, 86 NBCert # 01089							
Manufacturer/A	Manufacturer/Assembler Designators Expiration Date						
Assembler	Assembler UV 01/31/2025						
Design Type							
[Safety Relief Valve] 81, 81P, 83, 86 Capacity Tests: Sec. UV at Phillips Petroleum on July 8, 1965 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.816 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop							

Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-2 NPS	.75 - 2 NPS	0.012 in ²	[-2] 0.125 in	0.05 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2 NPS	0.028 in ²	[-3] 0.188 in	0.06 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-5000 psi	Air	NV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-720 psi	Steam	UV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-5000 psi	Air	NV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-9600 psi	Air	UV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-5000 psi	Air	NV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-6000 psi	Air	UV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-720 psi	Steam	UV
1.5 NPS	2 NPS	0.307 in ²	[F] 0.625 in	0.28 in	20-4040 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-6000 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-720 psi	Steam	UV
1.5-2 NPS	3 NPS	0.785 in ²	[H] 1 in	0.41 in	20-2580 psi	Air	UV
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-1620 psi	Air	UV
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-720 psi	Steam	UV
Design Nam	e: 81P (Liqui	ds)		NBCert	# 01102		
Manufacturer/A	Assembler		Designate	ors	Ex	cpiration Date	•
Assembler			UV		01	/19/2025	
Design Type							
[Relief Valve] 81P (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on November 26, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.720 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: 93% of pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP (AGC)							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-5000 psi	Water	NV
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-6250 psi	Water	UV, V

					•		
0.75-2 NPS	1 - 2 NPS	0.11 in ²	[-6] 0.375 in	0.13 in	50-6000 psi	Water	UV, V
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-5000 psi	Water	NV
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-6000 psi	Water	UV, V
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	50-6000 psi	Water	UV, V
2-2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	50-1620 psi	Water	UV, V

Design Nam	e: 900 Serie	s (Liquid), 7	7700, SNC	NBC	ert # 15499			
Manufacturer/	Assembler		Designat	Designators			ate	
Assembler			UV		0	01/31/2025		
Design Type	Design Type							
[Relief Valve] 9 Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure D Blowdown Char Flow Area Conf Designed by: E	[Relief Valve] 900 Series (Liquid), 7700, SNC Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 9, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.661 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP (AGC)							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	NV	
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	UV, V	
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	NV	

0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.0845 in²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.1244 in²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	NV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	UV, V
1-1.5 NPS	1.5 - 2 NPS	0.2951 in²	0.613 in	0.265 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	NV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV, V
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	NV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV, V

Design Name: 900 Series, 7700, S	NC NBCert #	15411
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/31/2025

Design Type

[Safety Relief Valve] 900 Series, 7700, SNC Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on February 14, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-2900 psi	Steam	NV, UV
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Air	UV

0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-2900 psi	Steam	NV, UV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Air	UV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-2900 psi	Steam	NV, UV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-2900 psi	Steam	NV, UV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Air	UV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-2900 psi	Steam	NV, UV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Air	UV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-2900 psi	Steam	NV, UV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Air	UV

Design Name: JLT/JLT-JDS (Liquids)	NBCert # 150	95
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/11/2025
Design Type		

[Safety Relief Valve] JLT/JLT-JDS (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 5, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.656 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in²	[D] 0.398 in	0.151 in	15-6170 psi	Water	NV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.3473 in²	[F] 0.665 in	0.257 in	15-6170 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.5674 in²	[G] 0.85 in	0.328 in	15-6170 psi	Water	NV
1.5-2 NPS	2.5, 3 NPS	0.5674 in²	[G] 0.85 in	0.328 in	15-6170 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	NV
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.8874 in²	[H] 1.063 in	0.41 in	15-3705 psi	Water	NV
1.5-2 NPS	3 NPS	0.8874 in²	[H] 1.063 in	0.41 in	15-3705 psi	Water	UV, V
2-3 NPS	3, 4 NPS	1.453 in²	[J] 1.36 in	0.525 in	15-3705 psi	Water	NV
2-3 NPS	3, 4 NPS	1.453 in²	[J] 1.36 in	0.525 in	15-3705 psi	Water	UV, V
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	NV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	UV, V
3 NPS	4-6 NPS	2.109 in ²	1.639 in	0.632 in	15-3705 psi	Water	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	NV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	UV, V
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	NV

3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	UV, V
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	NV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	NV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	1.232 in	15-1500 psi	Water	UV, V
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Water	UV, V
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	NV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	UV, V
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	NV
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	NV

esign Name: JLT-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABLNBCert

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/09/2024

Design Type

[Safety Relief Valve] JLT-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABL Capacity Tests: Sec. UV at Crosby Valve, LLC on June 28, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.870 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Air	UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in²	[G] 0.85 in	0.328 in	15-6170 psi	Air	UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Air	UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Air	UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Air	UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Air	UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Air	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Air	UV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Air	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Air	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Air	UV
8 NPS	10, 12 NPS	29.359 in ²	[T] 6.114 in	2.361 in	15-740 psi	Air	UV

Design Nam	e: JOS-E/JB E, 8400,	S-E/JOS-H AC/AB	-E/JBS-H-E/JOS-	-JDS- NBCert	# 15208			
Manufacturer/A	Assembler		Designate	ors	E	piration Date	1	
Assembler			UV		02	/02/2025		
Design Type								
[Safety Relief Valve] JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-E, 8400, AC/AB Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on April 1, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.865 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75-1.5 NPS	2 - 3 NPS	0.1244 in²	[D] 0.398 in	0.121 in	15-15000 psi	Air	NV, UV	
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.121 in	15-2000 psi	Steam	NV, UV	
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.151 in	15-2000 psi	Steam	UV	
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.151 in	15-8490 psi	Air	UV	
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-15000 psi	Air	NV, UV	
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-2000 psi	Steam	NV, UV	
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-15000 psi	Air	NV, UV	
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-2000 psi	Steam	NV, UV	
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.265 in	15-15000 psi	Air	NV, UV	
1.5-2 NPS	2.5, 3 NPS	0.5674 in²	[G] 0.85 in	0.265 in	15-2000 psi	Steam	NV, UV	
1.5-2 NPS	3 NPS	0.8874 in²	[H] 1.063 in	0.331 in	15-15000 psi	Air	NV, UV	
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.331 in	15-2000 psi	Steam	NV, UV	
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-10000 psi	Air	NV, UV	
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-2000 psi	Steam	NV, UV	
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-10000 psi	Air	NV, UV	
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-2000 psi	Steam	NV, UV	
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-1000 psi	Steam	NV, UV	
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-3000 psi	Air	NV, UV	
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-2000 psi	Steam	NV, UV	
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-5000 psi	Air	NV, UV	
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-2000 psi	Steam	NV, UV	
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-5000 psi	Air	NV, UV	
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-1480 psi	Steam	NV, UV	
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-3000 psi	Air	NV, UV	
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Air	NV, UV	

0.85 in

0.945 in

0.945 in

1.243 in

4 NPS

4 NPS

4 NPS

6 NPS

6 NPS

6 NPS

6 NPS

8 NPS

2.633 in

[P] 3.029 in

[P] 3.029 in

3.75 in

5.444 in²

7.206 in²

7.206 in²

11.045 in²

Steam

Steam

Steam

Air

15-2250 psi

15-1480 psi

15-3000 psi

15-1000 psi

NV, UV

NV, UV

NV, UV

NV, UV

6 NPS	8 NPS	11.045 in ²	3.75 in	1.243 in	15-3750 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Steam	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Air	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in²	[Q] 3.985 in	1.243 in	15-1480 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-3000 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in²	4.412 in	1.414 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Steam	NV, UV
8 NPS	10 NPS	18.254 in²	4.821 in	1.907 in	15-2250 psi	Air	NV, UV
8 NPS	10 NPS	18.254 in²	4.821 in	1.907 in	15-2250 psi	Steam	NV, UV
8 NPS	10 NPS	29.359 in²	[T] 6.114 in	1.907 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	1.907 in	15-740 psi	Steam	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Steam	NV, UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Air	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Steam	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Air	UV
	16 20 NPS	78.08 in²	[W] 9.971 in	3.111 in	15-325 psi	Steam	UV
12-14 NPS	10. 20 11 0				•		
12-14 NPS Design Name	e: Kunkle 300	0,600		NBCert #	\$ 36076		
12-14 NPS Design Name Manufacturer/A	e: Kunkle 300),600	Designato	NBCert #	‡ 36076 Ex	piration Date	
12-14 NPS Design Name Manufacturer/A Assembler	e: Kunkle 300	0,600	Designato V	NBCert # rs	# 36076 Ex 01.	piration Date	
12-14 NPS Design Name Manufacturer/A Assembler Design Type	e: Kunkle 300),600	Designato V	NBCert #	# 36076 Ex 01.	piration Date /31/2025	
12-14 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: O Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em	e: Kunkle 300 ssembler unkle 300,600 Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Se	2,600 yn lab on Febru bacity: Flow Ca as, Steam e (Dual Ring) Lift olutions Final C	Designato V Hary 10, 1961 pacity, K	NBCert #	# 36076 Ex 01.	piration Date	
12-14 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: C Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em	e: Kunkle 300 ssembler unkle 300,600 Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Si Outlet Size	2,600 2,700 2,	Designato V Hary 10, 1961 pacity, K Control US LP {AGC} Orifice [designator] dia.	NBCert #	# 36076 Ex 01. Set Pressure Range	piration Date /31/2025 Media	Designator
12-14 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: C Media - Test: Str Set Pressure De Blowdown Chara Flow Area Config Designed by: Em Inlet Size 1.25 NPS	e: Kunkle 300 ssembler unkle 300,600 Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation So Outlet Size 1.5 NPS	2,600 2,600	Designato V Pary 10, 1961 pacity, K Control US LP {AGC} Orifice [designator] dia. [F] 0.625 in	NBCert # rs Lift 0.156 in	# 36076 Ex 01. Set Pressure Range 15-1000 psi	piration Date /31/2025 Media Air	Designator UV
12-14 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: O Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em Inlet Size 1.25 NPS 1.25 NPS	e: Kunkle 300 ssembler unkle 300,600 Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Se Outlet Size 1.5 NPS 1.5 NPS	2,600 2,700 2,	Designato V arry 10, 1961 pacity, K Control US LP {AGC} Orifice [designator] dia. [F] 0.625 in [F] 0.625 in	NBCert # rs Lift 0.156 in 0.156 in	 # 36076 Ex 01. Set Pressure Range 15-1000 psi 15-1000 psi 	piration Date /31/2025 Media Air Steam	Designator UV V
12-14 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: C Media - Test: Std Set Pressure De Blowdown Chara Flow Area Config Designed by: Em Inlet Size 1.25 NPS 1.25 NPS	 Kunkle 300,600 ssembler unkle 300,600 Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Se Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 	2,600 2,700 2,	Designato V arry 10, 1961 pacity, K Control US LP {AGC} Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [F] 0.625 in	NBCert # rs Lift 0.156 in 0.156 in 0.156 in	 # 36076 Ex 01. Set Pressure 15-1000 psi 15-1000 psi 15-1000 psi 	piration Date /31/2025 Media Air Steam	
12-14 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value: O Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em Inlet Size 1.25 NPS 1.25 NPS 1.25 NPS	e: Kunkle 300 ssembler unkle 300,600 Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Se Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	2,600 2,700 2,	Designato V V aary 10, 1961 pacity, K Control US LP {AGC} Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [F] 0.625 in [F] 0.625 in [G] 0.8 in	NBCert # rs Lift 0.156 in 0.156 in 0.156 in 0.2 in	# 36076 Ex 01 01 01 Set Pressure 1 15-1000 psi 1	piration Date /31/2025 /Air Air Steam Steam	Designator υν
12-14 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value] K Capacity Tests: S Method of Estab Certified Value] C Media - Test: Str Set Pressure Des Blowdown Chara Flow Area Config Designed by: Em Inlet Size 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS	e: Kunkle 300 ssembler unkle 300,600 Sec. UV, V at unknow lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Si Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	2,600 2,700 2,	Designato V aary 10, 1961 pacity, K Control US LP {AGC} Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in	NBCert # rs Lift 0.156 in 0.156 in 0.156 in 0.2 in 0.2 in	# 36076 Ex 01. 01. 01. Set Pressure 1 15-1000 psi 1	piration Date /31/2025 //////////////////////////////////	Designator UV UV UV UV V V UV V V UV UV V UV UV V UV UV
12-14 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Estab Certified Value] C Media - Test: Sta Set Pressure De Blowdown Chara Flow Area Config Designed by: Em Inlet Size 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS	 Kunkle 300,600 ssembler unkle 300,600 Sec. UV, V at unknown lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Second Outlet Size 1.5 NPS 	2,600 2,700 2,	Designato V aary 10, 1961 pacity, K Control US LP {AGC} Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [G] 0.8 in	NBCert # rs Lift 0.156 in 0.156 in 0.156 in 0.2 i	# 36076 Ex 01 01 01 5 100 15-1000 psi 10	piration Date /31/2025 //////////////////////////////////	Designator UV UV
12-14 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] K Capacity Tests: S Method of Establ Certified Value: C Media - Test: Std Set Pressure Designed by: Em Blowdown Chara Flow Area Config Designed by: Em 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS 1.25 NPS	 Kunkle 300,600 ssembler unkle 300,600 Sec. UV, V at unknown lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full herson Automation Sc Outlet Size 1.5 NPS 	2,600 2,700 2,	Designato V aary 10, 1961 pacity, K Control US LP {AGC} Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [G] 0.8 in [H] 1 in	NBCert # rs Lift 0.156 in 0.156 in 0.156 in 0.2 in 0.2 in 0.2 in 0.25 in	36076 Ex 01. 5. 7. 15	piration Date 31/2025 Media Air Steam Steam Air Steam Steam Steam	Designator V UV V UV UV

1.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1000 psi	Steam	UV		
1.5 NPS	2.5 NPS	1.287 in ²	[J] 1.28 in	0.32 in	15-1000 psi	Air	UV		
1.5 NPS	2.5 NPS	1.287 in ²	[J] 1.28 in	0.32 in	15-1000 psi	Steam	V		
1.5 NPS	2.5 NPS	1.287 in ²	[J] 1.28 in	0.32 in	15-1000 psi	Steam	UV		
2 NPS	3 NPS	1.839 in ²	[K] 1.53 in	0.383 in	15-1000 psi	Air	UV		
2 NPS	3 NPS	1.839 in ²	[K] 1.53 in	0.383 in	15-1000 psi	Steam	V		
2 NPS	3 NPS	1.839 in ²	[K] 1.53 in	0.383 in	15-1000 psi	Steam	UV		
2.5 NPS	4 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1000 psi	Air	UV		
2.5 NPS	4 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1000 psi	Steam	V		
2.5 NPS	4 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1000 psi	Steam	UV		
3 NPS	4 NPS	3.597 in ²	[M] 2.14 in	0.535 in	15-1000 psi	Air	UV		
3 NPS	4 NPS	3.597 in ²	[M] 2.14 in	0.535 in	15-1000 psi	Steam	V		
3 NPS	4 NPS	3.597 in ²	[M] 2.14 in	0.535 in	15-1000 psi	Steam	UV		
4 NPS	6 NPS	4.34 in ²	[N] 2.35 in	0.588 in	15-750 psi	Air	UV		
4 NPS	6 NPS	4.34 in ²	[N] 2.35 in	0.588 in	15-750 psi	Steam	V		
4 NPS	6 NPS	4.34 in ²	[N] 2.35 in	0.588 in	15-750 psi	Steam	UV		
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-750 psi	Air	UV		
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-750 psi	Steam	V		
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-750 psi	Steam	UV		
6 NPS	8 NPS	11.045 in ²	[Q] 3.75 in	0.938 in	15-600 psi	Air	UV		
6 NPS	8 NPS	11.045 in ²	[Q] 3.75 in	0.938 in	15-600 psi	Steam	V		
6 NPS	8 NPS	11.045 in ²	[Q] 3.75 in	0.938 in	15-600 psi	Steam	UV		
Design Name	e: Kunkle 337	7		NBCert #	# 36278				
Manufacturer/A	ssembler		Designato	ors	E>	piration Date			
Assembler			UV		01	/31/2025			
Design Type									
[Safety Relief Valve] Kunkle 337 Capacity Tests: Sec. UV at unknown lab on February 22, 1982 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.860 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP (AGC)									
Inlet Size	Outlet Size	Flow Area	Orifice	Lift	Set Pressure	Media	Designator		
			ເບຍຣາຊາາສະບາງ ດາສ.		Ranye				
2 NPS	2 NPS	1.916 in ²	1.562 in	0.612 in	15-60 psi	Air	UV		
2.5 NPS	2.5 NPS	2.786 in ²	1.883 in	0.755 in	15-60 psi	Air	UV		
3 NPS	3 NPS	4.037 in ²	2.267 in	0.91 in	15-60 psi	Air	UV		

Design Name	e: Kunkle 60	eries	NBCert ;	# 36324				
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date		
Assembler			UV, V		02	2/02/2025		
Design Type								
[Safety Valve] Kunkle 6000, 6252 Series Capacity Tests: Sec. UV, V at unknown lab on March 24, 1982 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-0.75 NPS	.75 NPS	0.121 in²	[D] 0.393 in	0.094 in	15-300 psi	Air	UV	
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	V	
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	UV	
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Air	UV	
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	V	
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	UV	
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Air	UV	
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	V	
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	UV	
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Air	UV	
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	V	
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	UV	
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Air	UV	
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	V	
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	UV	
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Air	UV	
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	V	
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	UV	
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Air	UV	
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	V	
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	UV	
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Air	UV	
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	V	
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	UV	
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Air	UV	
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	V	
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	UV	
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Air	UV	
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	V	

4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Air	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	V
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Air	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	V
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	UV
6 NPS	8 NPS	17.6 in²	[R] 4.735 in	1.276 in	15-250 psi	Air	UV
6 NPS	8 NPS	17.6 in²	[R] 4.735 in	1.276 in	15-250 psi	Steam	V
6 NPS	8 NPS	17.6 in²	[R] 4.735 in	1.276 in	15-250 psi	Steam	UV

Design Name: Kunkle 910 to 919	NBCert # 361	00
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/31/2025
Design Type		

[Safety Relief Valve] Kunkle 910 to 919 Capacity Tests: Sec. UV at unknown lab on May 19, 1969 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Steam	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Air	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Steam	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Air	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Steam	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Air	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Steam	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Air	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Steam	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Air	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	UV

me: Kunkle 910 to 919 (Sect. VIII Liquid), 928 NB

36111

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/31/2025

[Relief Valve] Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid) Capacity Tests: Sec. UV, V at unknown lab on May 8, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.710 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75 , 1 NPS	0.1213 in ²	[D] 0.393 in	0.126 in	15-1400 psi	Water	UV, V
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.168 in	15-1000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.21 in	15-700 psi	Water	UV, V
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.268 in	15-600 psi	Water	UV, V
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.336 in	15-500 psi	Water	UV, V
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.429 in	15-500 psi	Water	UV, V

Designators

V

Design Name:

Kunkle 920, 921, 927, Agco A (High Temp. NBCert #

Expiration Date

02/01/2025

Manufacturer/Assembler

Assembler

Design Type

[Safety Valve] Kunkle 920, 921, 927, Agco A (High Temp. water) Capacity Tests: Sec. V at unknown lab on May 19, 1969 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Steam	V
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Steam	V
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Steam	V
1.25-2 NPS	2 NPS	0.553 in²	[G] 0.839 in	0.227 in	15-1100 psi	Steam	V
1.5-2 NPS	2.5 NPS	0.864 in²	[H] 1.049 in	0.283 in	15-1000 psi	Steam	V
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	V

Pioneer Industrial Corporation (PII)

Kansas City, MO 64108United States

Design Nam	e: 1900, 190 (Liquids)	0-30 1900-	35 LA & DALA	NBCert	# 1878	4		
Manufacturer/A	Assembler		Designat	ors		Expiration Date	1	
Assembler			UV			06/08/2024		
Design Type								
[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V	
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V	
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V	
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V	
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V	
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V	
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V	
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V	
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V	
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V	
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V	
6-6 NPS	8 NPS	12.851 in²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V	
6-6 NPS	8, 10 NPS	18.604 in²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V	
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V	
8-8 NPS	10 NPS	30.21 in²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V	
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V	
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V	
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V	
Design Nam	Design Name: 1900, 1900-30, 1900-35 NBCert # 18201							
Manufacturer/A	Assembler		Designate	ors		Expiration Date		
Assembler						06/08/2024		

Design Type

[Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954

Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV

Design Name	Design Name: 19000 Series NBCert # 18706							
Manufacturer/A	ssembler		Designate	ors	E>	piration Date		
Assembler			UV		06	6/08/2024		
Design Type								
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV	
0.5-1 NPS	1 NPS	0.11 in²	0.375 in	0.118 in	15-1500 psi	Steam	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV	

Pioneer Industrial Corporation (PLA)

Hastings, NE 68901United States

Design Name	e: 1811, 151 ⁻			NBCert	# 18122				
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date			
Assembler			UV, V		30	3/02/2024			
Design Type									
[Safety Valve] 1811, 1511 Capacity Tests: Sec. UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Steam	UV, V		
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Air	UV		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Steam	UV, V		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Air	UV		
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Steam	UV, V		
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Air	UV		
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Steam	UV, V		
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Air	UV		
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Steam	UV, V		
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Air	UV		
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Steam	UV, V		
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Air	UV		
3 NPS	4, 6 NPS	3.6 in²	[M] 2.14 in	0.535 in	15-1500 psi	Steam	UV, V		
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Air	UV		
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Steam	UV, V		
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV		
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V		
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV		
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V		
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV		

Design Nam	e: 1900, 190 (Liquids)	0-30 1900-	35 LA & DALA	NBCert	# 1878	34		
Manufacturer/	Assembler		Designat	ors		Expiration Date)	
Assembler			UV			08/02/2024		
Design Type								
[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V	
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V	
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V	
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V	
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V	
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V	
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V	
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V	
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V	
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V	
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V	
6-6 NPS	8 NPS	12.851 in²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V	
6-6 NPS	8, 10 NPS	18.604 in²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V	
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V	
8-8 NPS	10 NPS	30.21 in²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V	
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V	
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V	
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V	
Design Nam	e: 1900, 190	0-30, 1900-	-35	NBCert	# 1820)1		
Manufacturer/	Assembler		Designate	ors		Expiration Date	•	
Assembler			UV			08/02/2024		

Design Type

[Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV

Design Name: 19000 Series NBCert # 18706								
Manufacturer/A	ssembler		Designate	ors	E	piration Date		
Assembler			UV		80	/02/2024		
Design Type								
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV	

Design Nam	ie: 19000 Sei	ries, Liquid		NBCert	# 18717			
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	••••••••••••••••••••••••••••••••••••••	
Assembler			UV		0	8/02/2024		
Design Type								
[Relief Valve] 19000 Series, Liquid Capacity Tests: Sec. UV at Dresser, Inc. on August 30, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.673 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV	
Design Nam	ie: 1900D-2,	1900-30D-2	2	NBCert	# 18144			
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	3	
Assembler			UV		0	8/02/2024		
Design Type								
[Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}								
			Orifico		Sot Prossure			

Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV

Design Name: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 1

1-1.5 NPS

2 - 3 NPS

0.2279 in²

[E] 0.674 in

0.093 in

15-6250 psi

Water

Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Assembler			UV			08/02/2024		
Design Type								
[Relief Valve] 19 Capacity Tests: 5 Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	00D-2, 1900-30D-2 I Sec. NV, UV, V at Dre lishing Relieving Cap 3.256 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady s acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	LA & DALA (Lic esser, Inc. on Ju acity: Flow Ca SID Liquid Stream ift	ulids) uly 12, 1995 pacity, Flow Factor					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V	
Design Name	e: 1900E-2, 1	900-30E-2		NBCert i	# 1816	6		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Assembler			UV			08/02/2024		
Design Type								
Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (alt /Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ}	er, Inc. on Aug pacity: Flow Ca ternate mediun ed: Air, Gas, Sto (Single Ring) ift	ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA eam					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV	
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV	
Design Name	e: 1900E-2, 1	900-30E-2	LA & DALA (Liq	uids) NBCert i	¥ 1876	62		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Assembler			UV			08/02/2024		
Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: S Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	000E-2, 1900-30E-2 L Sec. NV, UV, V at Dre lishing Relieving Cap 5.798 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady 3 ccteristics: Fixed guration: Restricted L esser, LLC {DRJ}	A & DALA (Lic esser, Inc. on J pacity: Flow Ca SID Liquid Stream ift	uids) uly 12, 1995 pacity, Flow Factor Orifice		Set Pressure			
Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator	

NV, UV, V

Design Nam	e: 19110M &	. 19110H (L	iquids)	NBCert	# 1907	7		
Manufacturer/	Assembler		Designat	ors	1	Expiration Date	•	
Assembler			UV			08/07/2027		
Design Type								
[Relief Valve] 19110M & 19110H (Liquids) Capacity Tests: Sec. NV, UV at Dresser, Inc. on July 29, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 2.264 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	290-5000 psi	Water	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	290-5000 psi	Water	NV	
Design Nam	e: 1982			NBCert	# 1837	9		
Manufacturer/	Assembler		Designat	ors		Expiration Date	9	
Assembler			UV			08/02/2024		
Design Type [Safety Relief V. Capacity Tests: Method of Estal Certified Value: Media - Test: S Set Pressure Dr Blowdown Char Flow Area Conf Designed by: D	alve] 1982 Sec. NV, -Class 2, -C blishing Relieving Ca 0.855 Unitless team; Certified: Air, G efinition: Pop acteristics: Fixed iguration: Nozzle/Full resser, LLC {DRJ}	Class 3, UV at N pacity: Flow Ca Gas, Steam Lift	lational Board Testing pacity, K	Lab (Picaway) on I	May 6, 1980			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5 NPS	.75 NPS	0.121 in ²	0.393 in	0.092 in	15-500 psi	Air	NV, UV	
0.5 NPS	.75 NPS	0.121 in ²	0.393 in	0.092 in	15-500 psi	Steam	NV, UV	
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Air	NV, UV	
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Steam	NV, UV	
1 NPS	1.5 NPS	0.332 in ²	0.65 in	0.15 in	15-500 psi	Air	NV, UV	
1 NPS	1.5 NPS	0.332 in ²	0.65 in	0.15 in	15-500 psi	Steam	NV, UV	
1.5 NPS	2 NPS	0.857 in ²	1.045 in	0.243 in	15-500 psi	Air	NV, UV	
1.5 NPS	2 NPS	0.857 in ²	1.045 in	0.243 in	15-500 psi	Steam	NV, UV	

 2 NPS
 2.5 NPS
 1.399 in²
 1.335 in
 0.31 in
 15-500 psi
 Air
 NV, UV

 Design Name:
 1982 LS, 820000LS
 NBCert #
 18380

 Manufacturer/Assembler
 Designators
 Expiration Date

 Assembler
 UV
 08/02/2024

0.31 in

15-500 psi

Steam

NV, UV

2 NPS

2.5 NPS

1.399 in²

1.335 in

[Relief Valve] 1982 LS, 820000LS Capacity Tests: Sec. UV at Dresser, Inc. on December 19, 1984 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.758 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75 - 1 NPS	0.121 in ²	0.393 in	0.137 in	15-500 psi	Water	NV
0.5-0.75 NPS	.75 - 1 NPS	0.121 in ²	0.393 in	0.137 in	15-500 psi	Water	UV
0.75-1 NPS	1 , 1.5 NPS	0.216 in ²	0.524 in	0.162 in	15-500 psi	Water	NV
0.75-1 NPS	1 , 1.5 NPS	0.216 in ²	0.524 in	0.162 in	15-500 psi	Water	UV
1-1.25 NPS	1.5 NPS	0.332 in ²	0.65 in	0.236 in	15-500 psi	Water	NV
1-1.25 NPS	1.5 NPS	0.332 in ²	0.65 in	0.236 in	15-500 psi	Water	UV
1.5-2 NPS	2, 2.5 NPS	0.857 in ²	1.045 in	0.343 in	15-500 psi	Water	NV
1.5-2 NPS	2, 2.5 NPS	0.857 in ²	1.045 in	0.343 in	15-500 psi	Water	UV
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.43 in	15-500 psi	Water	NV
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.43 in	15-500 psi	Water	UV

Pioneer Industrial Corporation (ZLT)

Nameplate Abbreviation: Pioneer Industrial - St. Louis

St. Louis, MO 63104United States

Design Name	e: 1900, 1900 (Liquids))-30 1900-3	35 LA & DALA	NBCert #	# 18784			
Manufacturer/Assembler			Designato	ors	E	Expiration Date		
Assembler			UV		06	6/12/2024		
Design Type								
[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V	
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V	
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V	
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V	
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V	

2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V		
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V		
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V		
6-6 NPS	8 NPS	12.851 in²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V		
6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V		
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V		
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V		
Design Name: 19000 Series NBCert # 18706									
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date			
Assembler			UV		06	/12/2024			
Design Type									
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift									
Designed by. Dr	esser, LLC {DRJ}	Lift							
Inlet Size	Outlet Size	Lift Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia. 0.156 in	Lift 0.039 in	Set Pressure Range 15-1500 psi	Media Steam	Designator NV		
Inlet Size 0.5-1 NPS 0.5-1 NPS	Outlet Size 1 NPS 1 NPS	Lift Flow Area 0.019 in ² 0.019 in ²	Orifice [designator] dia. 0.156 in 0.156 in	Lift 0.039 in 0.039 in	Set Pressure Range 15-1500 psi 15-1500 psi	Media Steam Air	Designator NV UV		
Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	Outlet Size 1 NPS 1 NPS 1 NPS 1 NPS	Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ²	Orifice [designator] dia. 0.156 in 0.156 in 0.35 in	Lift 0.039 in 0.039 in 0.11 in	Set Pressure Range 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam	Designator NV UV UV		
Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	Outlet Size 1 NPS	Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ²	Orifice [designator] dia. 0.156 in 0.156 in 0.35 in	Lift 0.039 in 0.039 in 0.11 in 0.11 in	Set Pressure Range 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam Steam	Designator NV UV UV NV		
Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	Outlet Size 1 NPS	Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ² 0.096 in ²	Orifice [designator] dia. 0.156 in 0.156 in 0.35 in 0.35 in 0.35 in	Lift 0.039 in 0.039 in 0.11 in 0.11 in 0.11 in	Set Pressure Range I 15-1500 psi I	Media Steam Air Steam Steam Air	Designator NV UV UV UV NV		
Inlet Size 0.5-1 NPS	Outlet Size 1 NPS	Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ²	Orifice [designator] dia. 0.156 in 0.156 in 0.35 in 0.35 in 0.35 in 0.35 in 0.35 in	Lift 0.039 in 0.039 in 0.11 in 0.11 in 0.11 in 0.11 in	Set Pressure Range Image 15-1500 psi Image 15-5000 psi Image 15-5000 psi Image	Media Steam Air Steam Steam Air	Designator NV UV UV VV NV UV		
Inlet Size 0.5-1 NPS	Outlet Size 1 NPS	Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.096 in ²	Orifice [designator] dia. 0.156 in 0.156 in 0.35 in	Lift 0.039 in 0.039 in 0.11 in 0.11 in 0.11 in 0.11 in 0.11 in	Set Pressure 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-5000 psi 15-5000 psi 15-1500 psi 15-5000 psi 15-5000 psi 15-1500 psi	MediaSteamAirSteamSteamAirAirSteam	Designator NV UV UV NV NV UV UV UV UV UV UV UV UV UV		
Inlet Size 0.5-1 NPS	Outlet Size 1 NPS	Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.11 in ²	Orifice [designator] dia. 0.156 in 0.156 in 0.35 in 0.375 in	Lift 0.039 in 0.039 in 0.11 in 0.11 in 0.11 in 0.118 in	Set Pressure 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-5000 psi 15-5000 psi 15-5000 psi 15-5000 psi 15-1500 psi 15-5000 psi 15-1500 psi 15-5000 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam Steam Air Air Steam	Designator NV UV UV NV NV UV NV UV NV UV NV UV NV NV NV NV NV NV NV NV		
Inlet Size 0.5-1 NPS	Outlet Size 1 NPS	Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.11 in ² 0.11 in ²	Orifice	Lift 0.039 in 0.039 in 0.11 in 0.11 in 0.11 in 0.118 in 0.118 in 0.118 in	Set Pressure 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-5000 psi 15-5000 psi 15-1500 psi 15-5000 psi 15-1500 psi 15-5000 psi 15-5000 psi 15-5000 psi 15-5000 psi 15-5000 psi 15-1500 psi 15-1500 psi	MediaSteamAirSteamSteamAirAirSteamAir	Designator NV UV UV NV UV NV NV NV UV NV UV		
Inlet Size 0.5-1 NPS	Outlet Size 1 NPS	Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.11 in ² 0.11 in ² 0.11 in ²	Orifice () () ()	Lift 0.039 in 0.039 in 0.11 in 0.11 in 0.11 in 0.118 in 0.118 in 0.118 in 0.118 in	Set Pressure 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-5000 psi 15-5000 psi 15-1500 psi 15-5000 psi	MediaSteamAirSteamSteamAirSteamAirAirAirAirAirAirAirAirAir	Designator NV UV UV V NV UV NV NV NV NV NV		
Inlet Size 0.5-1 NPS	Outlet Size 1 NPS	Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.11 in ² 0.11 in ² 0.11 in ² 0.11 in ²	Orifice (designator) dia. 0.156 in 0.156 in 0.35 in 0.375 in 0.375 in 0.375 in 0.375 in 0.375 in 0.375 in	Lift 0.039 in 0.039 in 0.11 in 0.11 in 0.11 in 0.11 in 0.118 in 0.118 in 0.118 in 0.118 in 0.118 in	Set Pressure 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-5000 psi 15-5000 psi 15-1500 psi 15-5000 psi	MediaSteamAirSteamSteamAirSteamAirAirAirSteamAirSteamAirSteamSteamAirSteamSteamSteam	Designator NV UV UV NV UV NV UV NV UV NV NV UV		
Inlet Size 0.5-1 NPS 0.75-1 NPS	Outlet Size1 NPS1 NPS	Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.11 in ² 0.11 in ² 0.126 in ²	Orifice (designator) dia. 0.156 in 0.156 in 0.35 in 0.375 in 0.401 in	Lift 0.039 in 0.039 in 0.11 in 0.11 in 0.11 in 0.118 in 0.118 in 0.118 in 0.118 in 0.118 in 0.126 in	Set Pressure 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-5000 psi 15-5000 psi 15-1500 psi 15-5000 psi 15-1500 psi 15-5000 psi 15-2000 psi	MediaSteamAirSteamSteamAirSteamAirSteamSteamSteamAirSteamSteamSteamSteamSteamSteamSteamSteamSteam	Designator NV UV UV NV NV NV NV		

0.126 in

0.169 in

0.169 in

15-8000 psi

15-2000 psi

15-2000 psi

Air

Steam

Steam

NV

UV

NV

0.75-1 NPS

1-1 NPS

1-1 NPS

1 NPS

1.5 NPS

1.5 NPS

0.126 in²

0.226 in²

0.226 in²

0.401 in

0.537 in

0.537 in

1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV

Design Name: 19000 Series, Liquid	NBCert # 187	
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/12/2024
Design Type		
[Relief Valve] 19000 Series, Liquid Capacity Tests: Sec. UV at Dresser, Inc. on August 30, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K		

Certified Value: 0.673 Unitless

Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream

Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV

Design Name: 1900E-2, 1900-30E-2 LA & DALA (Liquids) NBCert #

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/12/2024

[Relief Valve] 1900E-2, 1900-30E-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 5.798 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V

Design Name: 2900 (39PV & 39MV pilots - Liquid

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2027
Design Type		

[Pilot Operated Pressure Relief Valve] 2900 (39PV & 39MV pilots - Liquid) Capacity Tests: Sec. UV, V at Dresser, Inc. on June 25, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	UV, V
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	UV, V
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.205 in	15-6250 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.395 in	15-3750 psi	Water	UV, V
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-6000 psi	Water	UV, V
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-6000 psi	Water	UV, V
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-3750 psi	Water	UV, V
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-2250 psi	Water	UV, V
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-2250 psi	Water	UV, V
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-2250 psi	Water	UV, V
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-1500 psi	Water	UV, V
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.738 in	15-1500 psi	Water	UV, V
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-905 psi	Water	UV, V
8 NPS	10 NPS	35 in ²	[U] 6.688 in	1.841 in	15-905 psi	Water	UV, V
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.93 in	15-675 psi	Water	UV, V
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-535 psi	Water	UV, V

Design Nan	ie. 2900 (39F	~ v & Saini v	pilots)	NDCen	# 10000		
Manufacturer/	ufacturer/Assembler Designators			E	xpiration Date	9	
Assembler UV			UV		02	2/10/2027	
Design Type							
Design Type [Pilot Operated Pressure Relief Valve] 2900 (39PV & 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on June 25, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser LLC {DR.}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-7200 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-4230 psi	Steam	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3750 psi	Air	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2500 psi	Steam	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-6000 psi	Air	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2500 psi	Steam	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2000 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-3750 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-2250 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-2250 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-2250 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	UV
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-1500 psi	Air	UV
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-905 psi	Steam	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Steam	UV

8 NPS

10 NPS

35 in²

[U] 6.688 in

1.841 in

15-905 psi

UV

Air
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Steam	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-675 psi	Air	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-300 psi	Steam	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-535 psi	Air	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	UV

Design Name:	3900 (39PV, 39MV pilots)	NBCert #	18447
Manufacturer/Assen	nbler	Designators	Expiration Date
Assembler		UV	02/10/2027

Design Type

[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on May 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Air	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-750 psi	Steam	UV

Design Name:	3900 (39PV, 39MV pilots, liqu	iid)	NBCert # 184	58
Manufacturer/Assem	bler	Designators		Expiration Date
Assembler		UV		02/10/2027

2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-750 psi	Steam	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	UV
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Air	UV
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-700 psi	Steam	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	UV
10 NPS	10-14 NPS	69.94 in ²	9.437 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-750 psi	Steam	UV

[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots, liquid) Capacity Tests: Sec. UV at Dresser, Inc. on June 1, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.743 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Water	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Water	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	UV

8 NPS	10 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Water	UV

Portersville PRD LLC (PRT)

Blountville, TN 37617United States

This Company Manufactures or Assembles:

Design Name	e: 2600 & 26	005		NBCert	# 57057		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			UV		04	/15/2028	
Design Type							
[Safety Relief Va Capacity Tests: 1 Method of Estab Certified Value: 1 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confi Designed by: Fa	alve] 2600 & 2600S Sec. UV at Ohio Stat olishing Relieving Caj 0.858 Unitless r/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full arris Engineering {TF	e University (R pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift O}	obinson Laboratory) or pacity, K eam	ו June 11, 1972			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-2900 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-2900 psi	Steam	UV
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-5000 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-2900 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV

Nameplate Abbreviation: Portersville PRD - TN

4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV
6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Air	UV
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Air	UV
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Steam	UV
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV
20 NPS	24 NPS	176.7 in ²	[Z] 15 in	4.5 in	15-750 psi	Air	UV
20 NPS	24 NPS	176.7 in²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV
Design Name	e: 2600L (Air	2600L (Air & Steam) NBCert # 57260					
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			UV		04	/15/2028	
Design Type							
Safety Relief Va	lvel 2600L (Air & Ste	eam)					

[Safety Relief Valve] 2600L (Air & Steam) Capacity Tests: Sec. UV at Farris Engineering on March 5, 2004 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-2900 psi	Steam	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-10000 psi	Air	UV
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-2900 psi	Steam	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-2900 psi	Steam	UV

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
[Relief Valve] 26 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Fa	600L (Liquids) Sec. UV, V at Nationa lishing Relieving Cap 0.652 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rris Engineering {TFC	al Board Testin bacity: Flow Ca Liquid Stream Lift D}	g Lab (Picaway) on Jai pacity, K	nuary 29, 1985			
Design Type							
Assembler			UV		04	/15/2028	
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date	
Design Name	e: 2600L (Liq	uids)		NBCert #	# 57068		
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.217 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.125 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.125 in	15-1000 psi	Air	UV
6 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.665 in	15-1500 psi	Steam	UV
6 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.665 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Steam	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in ²	[M] 2.257 in	0.79 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4 in ²	[M] 2 257 in	0.79 in	15-2900 psi	Steam	
3-4 NPS	4.6 NPS	3 17 in ²	[L] 2.009 in	0.703 in	15-2000 poi	Air	
	4,0 NPS	2.042 III ⁻		0.304 III	15-2000 psi	All	
3 NPS	4, 6 NPS	2.042 In ²	[K] 1.612 in	0.564 in	15-2900 psi	Steam	
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-6000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-7000 psi	Air	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-2900 psi	Steam	UV

			[designator] dia.		Range		Ū.
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Water	UV, V
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-6000 psi	Water	UV, V
1.5-2 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.206 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.326 in	15-3600 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.407 in	15-2750 psi	Water	UV, V

2-3 NPS	2 - 4 NPS	1.43 in ²	[J] 1.35 in	0.521 in	15-2700 psi	Water	UV, V
3 NPS	4, 6 NPS	2.041 in ²	[K] 1.612 in	0.622 in	15-2200 psi	Water	UV, V
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.775 in	15-1500 psi	Water	UV, V
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.871 in	15-1100 psi	Water	UV, V
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.957 in	15-1000 psi	Water	UV, V
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.16 in	15-1000 psi	Water	UV, V
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.525 in	15-900 psi	Water	UV, V
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.837 in	15-600 psi	Water	UV, V
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.339 in	15-300 psi	Water	UV, V
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.47 in	15-300 psi	Water	UV, V

Design Name: 2700, 2700S, 3700, 3700S

Manufacturer/AssemblerDesignatorsExpiration DateAssemblerUV04/15/2028

Design Type

[Safety Relief Valve] 2700, 2700S, 3700, 3700S Capacity Tests: Sec. UV at Farris Engineering on September 14, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Air	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-2900 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-10000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-2900 psi	Steam	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Air	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-2900 psi	Steam	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Air	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Air	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-2900 psi	Steam	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Air	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-2900 psi	Steam	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-2900 psi	Steam	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Air	UV

Design Nam	ne: 2700L, 3	700L (Liquid	s)	NBCert # 57248						
Manufacturer/	Assembler		Designa	tors		Expiration Date				
Assembler			UV			04/15/2028				
Design Type										
[Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Cha Flow Area Cont Designed by: F	[Relief Valve] 2700L, 3700L (Liquids) Capacity Tests: Sec. UV at Farris Engineering on September 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.676 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TEQ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Water	UV			
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Water	UV			
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.089 in	15-10000 psi	Water	UV			

0.1 in

0.134 in

0.167 in

0.215 in

0.268 in

0.342 in

15-10000 psi

15-10000 psi

15-7000 psi

15-5000 psi

15-4000 psi

15-3000 psi

Water

Water

Water

Water

Water

Water

UV

UV

UV

UV

UV

UV

Portersville PRD LLC (PVE)

1 - 2 NPS

1.5, 2 NPS

2, 2.5 NPS

2., 3 NPS

3 NPS

4 NPS

0.125 in²

0.223 in²

0.35 in²

0.573 in²

0.898 in²

1.47 in²

[D] 0.4 in

[E] 0.533 in

[F] 0.668 in

[G] 0.855 in

[H] 1.069 in

[J] 1.368 in

New Castle, PA 16101United States

0.5-2 NPS

1 NPS

1.5 NPS

2 NPS

3 NPS

1.5-2 NPS

This Company Manufactures or Assembles:

Design Nam	ne: 2400			NBC	Cert # 5745	51					
Manufacturer	Assembler		Designat	Designators			Expiration Date				
Assembler	Assembler					08/13/2026					
Design Type	Design Type										
[Safety Relief V Capacity Tests Method of Esta Certified Value Media - Test: A Set Pressure D Blowdown Cha Flow Area Con Designed by: F	Design Type [Safety Relief Valve] 2400 Capacity Tests: Sec. UV at Farris Engineering on August 28, 2019 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.817 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	0.75-1 NPS	0.049 in ²	[B] 0.25 in	0.08 in	20-2000 psi	Air	UV				

0.5-1 NPS	1-2 NPS	0.11 in ²	[D] 0.375 in	0.12 in	20-1410 psi	Air	UV			
0.75-1 NPS	1-2 NPS	0.196 in ²	[E] 0.5 in	0.175 in	20-600 psi	Air	UV			
1.5 NPS	2 NPS	0.307 in ²	[F] 0.625 in	0.295 in	20-4000 psi	Air	UV			
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.365 in	20-3000 psi	Air	UV			
1.5-2 NPS	3 NPS	0.785 in ²	[H] 1 in	0.435 in	20-2500 psi	Air	UV			
Design Name: 2600 & 2600S NBCert # 57057										
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date				
Assembler			UV		07	/10/2027				
Design Type										
[Safety Relief Valve] 2600 & 2600S Capacity Tests: Sec. UV at Ohio State University (Robinson Laboratory) on June 11, 1972 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-10000 psi	Air	UV			
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV			
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-10000 psi	Air	UV			
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-10000 psi	Air	UV			
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-2900 psi	Steam	UV			
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.253 in	15-7000 psi	Air	UV			
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-2900 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.316 in	15-6000 psi	Air	UV			
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-2900 psi	Steam	UV			
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.405 in	15-6000 psi	Air	UV			
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-2900 psi	Steam	UV			
3 NPS	4 - 6 NPS	2.042 in ²	[K] 1.612 in	0.484 in	15-5000 psi	Air	UV			
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-2900 psi	Steam	UV			
3-4 NPS	4 - 6 NPS	3.17 in ²	[L] 2.009 in	0.603 in	15-4000 psi	Air	UV			
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-2900 psi	Steam	UV			
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.677 in	15-3000 psi	Air	UV			
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-2900 psi	Steam	UV			
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.743 in	15-3000 psi	Air	UV			
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Air	UV			
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.901 in	15-2500 psi	Steam	UV			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Air	UV			
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.186 in	15-2000 psi	Steam	UV			

6-8 NPS	8 - 10 NPS	17.78 in²	[R] 4.758 in	1.427 in	15-1500 psi	Air	UV		
6-8 NPS	8 - 10 NPS	17.78 in ²	[R] 4.758 in	1.427 in	15-1500 psi	Steam	UV		
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Air	UV		
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	1.821 in	15-1000 psi	Steam	UV		
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Air	UV		
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	1.899 in	15-300 psi	Steam	UV		
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Air	UV		
10 NPS	14 NPS	49.4 in ²	[V] 7.93 in	2.379 in	15-1000 psi	Steam	UV		
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Air	UV		
12 NPS	16 NPS	63.62 in ²	[W] 9 in	2.7 in	15-1000 psi	Steam	UV		
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Air	UV		
16 NPS	18 NPS	104 in²	[W2] 11.507 in	3.452 in	15-750 psi	Steam	UV		
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Air	UV		
16 NPS	20 NPS	113.1 in²	[X] 12 in	3.6 in	15-750 psi	Steam	UV		
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Air	UV		
18 NPS	24 NPS	143.1 in²	[Y] 13.5 in	4.05 in	15-750 psi	Steam	UV		
20 NPS	24 NPS	176.7 in²	[Z] 15 in	4.5 in	15-750 psi	Air	UV		
20 NPS	24 NPS	176.7 in²	[Z] 15 in	4.5 in	15-750 psi	Steam	UV		
Design Nam	e: 2600L (Aii	r & Steam)		NBCert	# 57260				
	``	,		_					
Manufacturer/	Assembler		Designat	ors	Expiration Date				
Assembler			UV		02	2/07/2026			
Design Type									
[Safety Relief Valve] 2600L (Air & Steam) Capacity Tests: Sec. UV at Farris Engineering on March 5, 2004 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.858 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TEQ}									
Inlet Size	Outlet Size	Flow Area	Orifice	Lift	Set Pressure	Media	Designator		
	541101 0120	i ion Alda	[designator] dia.		Range	moulu	Solighator		
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-10000 psi	Air	UV		
1-2 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.131 in	15-2900 psi	Steam	UV		
1-2 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.16 in	15-10000 psi	Air	UV		

1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-10000 psi	Air	UV
1.5-2 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.206 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.559 in ²	[G] 0.844 in	0.295 in	15-7000 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.369 in	15-6000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-2900 psi	Steam	UV

0.16 in

15-2900 psi

[E] 0.535 in

0.225 in²

1-2 NPS

2 - 3 NPS

UV

Steam

2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.473 in	15-6000 psi	Air	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-2900 psi	Steam	UV
3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.564 in	15-5000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-2900 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.703 in	15-4000 psi	Air	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4 in²	[M] 2.257 in	0.79 in	15-3000 psi	Air	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.867 in	15-3000 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	1.05 in	15-2500 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.383 in	15-2000 psi	Steam	UV
6 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.665 in	15-1500 psi	Air	UV
6 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.665 in	15-1500 psi	Steam	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	2.125 in	15-1000 psi	Air	UV
8-10 NPS	10, 12 NPS	28.94 in²	[T] 6.07 in	2.125 in	15-1000 psi	Steam	UV
8-10 NPS	10, 12 NPS	31.5 in²	[U] 6.333 in	2.217 in	15-300 psi	Air	UV
8-10 NPS	10, 12 NPS	31.5 in²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV
Design Nam Manufacturer//	ne: 2600L (Lio Assembler	quids)	Designat	NBCert :	# 57068 E:	opiration Date	•
Design Nam Manufacturer/ <i>I</i> Assembler	ne: 2600L (Lio Assembler	quids)	Designat	NBCert :	# 57068 E: 10	xpiration Date	•
Design Nam Manufacturer// Assembler Design Type	ne: 2600L (Lio	quids)	Designat UV	NBCert :	# 57068 E: 10	cpiration Date	•
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Chai Flow Area Conf Designed by: Fa	e: 2600L (Lio Assembler 2600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Full arris Engineering {TF	quids) al Board Testin pacity: Flow Ca : Liquid Stream I Lift O}	Designat UV Ig Lab (Picaway) on Ja apacity, K	NBCert i	# 57068 E: 1(xpiration Data	
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Chat Flow Area Conf Designed by: Fi Inlet Size	e: 2600L (Liq Assembler 2600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Full arris Engineering {TF Outlet Size	quids) al Board Testin pacity: Flow Ca : Liquid Stream I Lift O} Flow Area	Designat UV Ig Lab (Picaway) on Ja apacity, K Orifice [designator] dia.	NBCert ors nuary 29, 1985 Lift	# 57068 E: 10 Set Pressure Range	kpiration Date	Designator
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Chai Flow Area Conf Designed by: Fi Inlet Size 1-2 NPS	e: 2600L (Lio Assembler 2600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Full arris Engineering {TF Outlet Size 2 - 3 NPS	quids) al Board Testin pacity: Flow Ca : Liquid Stream I Lift O} Flow Area 0.15 in ²	Designat UV g Lab (Picaway) on Ja apacity, K Orifice [designator] dia. [D] 0.437 in	NBCert ors nuary 29, 1985 Lift 0.131 in	# 57068 E: 10 Set Pressure Range 15-10000 psi	Apiration Date D/04/2025 Media Water	Designator UV, V
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Char Flow Area Conf Designed by: F Inlet Size 1-2 NPS 1-2 NPS	e: 2600L (Liq Assembler 2600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Ful arris Engineering {TF Outlet Size 2 - 3 NPS 2 - 3 NPS	al Board Testin pacity: Flow Ca : Liquid Stream I Lift O} Flow Area 0.15 in ² 0.225 in ²	Designat UV g Lab (Picaway) on Ja apacity, K Orifice [designator] dia. [D] 0.437 in [E] 0.535 in	NBCert ors nuary 29, 1985 Lift 0.131 in 0.16 in	# 57068 E: 10 10 10 10 10 10 10 15-10000 psi 15-6000 p	xpiration Date 0/04/2025 Media Water Water	Designator
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Chai Flow Area Conf Designed by: F Inlet Size 1-2 NPS 1-2 NPS 1.5-2 NPS	e: 2600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Full arris Engineering {TF Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	al Board Testin pacity: Flow Ca : Liquid Stream I Lift O} Flow Area 0.15 in ² 0.225 in ² 0.371 in ²	Designat UV g Lab (Picaway) on Ja apacity, K Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in	NBCert ors nuary 29, 1985	# 57068 E: 10 57068 10 10 10 10 10 10 10 15-10000 psi 15-6000 psi 15-5000 psi	Apiration Date D/04/2025 Media Water Water Water	Designator UV, V UV, V UV, V
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Chai Flow Area Conf Designed by: Fi Inlet Size 1-2 NPS 1.52 NPS 1.5-2 NPS	e: 2600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Full arris Engineering {TF Outlet Size 2 - 3 NPS 2 - 3 NPS	al Board Testin pacity: Flow Ca : Liquid Stream Lift O} Flow Area 0.15 in ² 0.225 in ² 0.371 in ² 0.559 in ²	Designation UV ug Lab (Picaway) on Japacity, K Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in	NBCert Drs Lift 0.131 in 0.16 in 0.206 in 0.326 in	# 57068 E: 10 57068 10 10 10 10 10 10 10 10 10 10 10 10 10	Apiration Date D/04/2025 Media Water Water Water Water Water	Designator UV, V
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Chai Flow Area Conf Designed by: Fi Inlet Size 1-2 NPS 1-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	e: 2600L (Liquids) Assembler 2600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Full arris Engineering {TF Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 .5, 3 NPS 3 NPS	al Board Testin pacity: Flow Ca : Liquid Stream Lift O} Flow Area 0.15 in ² 0.225 in ² 0.371 in ² 0.559 in ² 0.873 in ²	Designation UV up Lab (Picaway) on Jaapacity, K Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [H] 1.054 in	NBCert ors nuary 29, 1985 Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.326 in 0.407 in	# 57068 E: 10 57068 10 10 10 10 10 10 10 10 10 10 10 10 10	<pre>kpiration Date //04/2025 //04/20 //04</pre>	Designator UV, V
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Chai Flow Area Conf Designed by: F Inlet Size 1-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS	e: 2600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Ful arris Engineering {TF Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 4 NPS	al Board Testin pacity: Flow Ca : Liquid Stream Lift O} Flow Area 0.15 in ² 0.225 in ² 0.371 in ² 0.371 in ² 0.559 in ² 0.873 in ² 1.43 in ²	Designation UV ag Lab (Picaway) on Jacator agacity, K Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [H] 1.054 in [J] 1.35 in	NBCert ors auary 29, 1985 Lift 0.131 in 0.16 in 0.206 in 0.326 in 0.326 in 0.407 in 0.521 in	# 57068	Appiration Date D/04/2025 D/04/2025 Media Water	Designator UV, V
Design Nam Manufacturer// Assembler Design Type [Relief Valve] 2 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Chat Flow Area Conf Designed by: Fr Inlet Size 1-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3 NPS	e: 2600L (Liquids) Sec. UV, V at Nation blishing Relieving Ca 0.652 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed figuration: Nozzle/Full arris Engineering {TF Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 4 NPS 4, 6 NPS	al Board Testin pacity: Flow Ca : Liquid Stream Lift O} Flow Area 0.15 in ² 0.225 in ² 0.371 in ² 0.559 in ² 0.873 in ² 1.43 in ² 2.041 in ²	Designation UV apacity, K Orifice [designator] dia. [D] 0.437 in [E] 0.535 in [F] 0.687 in [G] 0.844 in [J] 1.35 in [K] 1.612 in	NBCert Drs Lift 0.131 in 0.206 in 0.326 in 0.326 in 0.521 in 0.622 in	# 57068 E 10 C C C C C C C C C C C C C C C C C C	Appiration Date Appiration Date <td>Designator UV, V UV, V</td>	Designator UV, V UV, V

4 NPS

4 NPS

6 NPS

6 NPS

[M] 2.257 in

[N] 2.478 in

4 in²

4.822 in²

UV, V

UV, V

Water

Water

15-1100 psi

15-1000 psi

0.871 in

0.957 in

4 NPS	6 NPS	7.087 in²	[P] 3.004 in	1.16 in	15-1000 psi	Water	UV, V
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.525 in	15-900 psi	Water	UV, V
6-8 NPS	8, 10 NPS	17.78 in²	[R] 4.758 in	1.837 in	15-600 psi	Water	UV, V
8-10 NPS	10, 12 NPS	28.94 in ²	[T] 6.07 in	2.339 in	15-300 psi	Water	UV, V
8-10 NPS	10, 12 NPS	31.5 in ²	[U] 6.333 in	2.47 in	15-300 psi	Water	UV, V

Design Name:	2700, 2700S, 3700, 3700S	NBCert # 5 ⁻	7237
Manufacturer/Assen	nbler	Designators	Expiration Date
Assembler		UV	07/10/2027

Design Type

[Safety Relief Valve] 2700, 2700S, 3700, 3700S Capacity Tests: Sec. UV at Farris Engineering on September 14, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-2900 psi	Steam	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Air	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-2900 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-10000 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.0895 in	15-2900 psi	Steam	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Air	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-2900 psi	Steam	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Air	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-2900 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Air	UV
1.5-2 NPS	2., 3 NPS	0.573 in²	[G] 0.855 in	0.215 in	15-2900 psi	Steam	UV
1.5-2 NPS	2., 3 NPS	0.573 in²	[G] 0.855 in	0.215 in	15-5000 psi	Air	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-2900 psi	Steam	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Air	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-2900 psi	Steam	UV
3 NPS	4 NPS	1.47 in ²	[J] 1.368 in	0.342 in	15-3000 psi	Air	UV
Design Name	e: 2700L, 370	0L (Liquids	6)	NBCert #	ŧ 57248		
Manufacturer/A	ssembler	Designato	rs	E	Expiration Date		

UV

10/04/2025

[Relief Valve] 2700L, 3700L (Liquids) Capacity Tests: Sec. UV at Farris Engineering on September 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.676 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.038 in ²	[B] 0.22 in	0.05 in	15-16000 psi	Water	UV
0.5-1.5 NPS	.75 - 2 NPS	0.068 in ²	[C] 0.295 in	0.074 in	15-10000 psi	Water	UV
0.5-1 NPS	.75, 1 NPS	0.098 in ²	[1] 0.358 in	0.089 in	15-10000 psi	Water	UV
0.5-2 NPS	1 - 2 NPS	0.125 in ²	[D] 0.4 in	0.1 in	15-10000 psi	Water	UV
1 NPS	1.5, 2 NPS	0.223 in ²	[E] 0.533 in	0.134 in	15-10000 psi	Water	UV
1.5 NPS	2, 2.5 NPS	0.35 in ²	[F] 0.668 in	0.167 in	15-7000 psi	Water	UV
1.5-2 NPS	2., 3 NPS	0.573 in ²	[G] 0.855 in	0.215 in	15-5000 psi	Water	UV
2 NPS	3 NPS	0.898 in ²	[H] 1.069 in	0.268 in	15-4000 psi	Water	UV
3 NPS	4 NPS	1.47 in²	[J] 1.368 in	0.342 in	15-3000 psi	Water	UV

Design Name: 3800	NBCert # 570	24
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/07/2026

Design Type

[Pilot Operated Pressure Relief Valve] 3800 Capacity Tests: Sec. UV at TELEDYNE FARRIS ENGR on May 20, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.859 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.15 in ²	[D] 0.437 in	0.162 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-1050 psi	Steam	UV
1-1.5 NPS	2 NPS	0.371 in²	[F] 0.687 in	0.254 in	15-10000 psi	Air	UV
1-1.5 NPS	2 NPS	0.371 in²	[F] 0.687 in	0.254 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in²	[G] 0.844 in	0.312 in	15-1050 psi	Steam	UV
1-2 NPS	2, 3 NPS	0.559 in ²	[G] 0.844 in	0.312 in	15-7000 psi	Air	UV
1.5-2 NPS	2, 3 NPS	0.873 in²	[H] 1.054 in	0.39 in	15-1050 psi	Steam	UV
1.5-2 NPS	2, 3 NPS	0.873 in²	[H] 1.054 in	0.39 in	15-7000 psi	Air	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in²	[J] 1.35 in	0.5 in	15-1050 psi	Steam	UV
1.5-3 NPS	2, 3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Air	UV

2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-1050 psi	Steam	UV
2-3 NPS	3, 4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4 in²	[M] 2.257 in	0.835 in	15-4000 psi	Air	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-1050 psi	Steam	UV
3-4 NPS	4, 6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Air	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-1050 psi	Steam	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-1050 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Air	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-1050 psi	Steam	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Air	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-1050 psi	Steam	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Air	UV

Design Name:

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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2026

Design Type

[Pilot Operated Pressure Relief Valve] 3800FP

Capacity Tests: Sec. UV at Farris Engineering on April 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.801 Unitless

Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam

Set Pressure Definition(1): Pop; (3): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Nozzle/Full Lift

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	2, 3 NPS	0.719 in²	[A] 0.957 in	0.354 in	15-10000 psi	Air	UV
1 NPS	2, 3 NPS	0.719 in ²	[A] 0.957 in	0.354 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in ²	[1] 1.5 in	0.555 in	15-1050 psi	Steam	UV
1.5 NPS	2, 3 NPS	1.767 in²	[1] 1.5 in	0.555 in	15-7000 psi	Air	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-1050 psi	Steam	UV
2 NPS	3 NPS	2.953 in ²	[2] 1.939 in	0.717 in	15-7000 psi	Air	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-1050 psi	Steam	UV
3 NPS	4 NPS	6.605 in ²	[3] 2.9 in	1.073 in	15-5000 psi	Air	UV
4 NPS	6 NPS	11.5 in²	[4] 3.826 in	1.416 in	15-1050 psi	Steam	UV
4 NPS	6 NPS	11.5 in ²	[4] 3.826 in	1.416 in	15-4000 psi	Air	UV
6 NPS	8 NPS	26.07 in ²	[6] 5.761 in	2.132 in	15-1050 psi	Steam	UV

6 NPS	8 NPS	26.07 in²	[6] 5.761 in	2.132 in	15-2000 psi	Air	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-1050 psi	Steam	UV
8 NPS	10 NPS	45.66 in ²	[8] 7.625 in	2.821 in	15-2000 psi	Air	UV
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1400 psi	Air	UV
10 NPS	14 NPS	72 in²	[10] 9.575 in	3.55 in	15-1050 psi	Steam	UV
12 NPS	16 NPS	109.5 in²	[12] 11.81 in	4.37 in	15-800 psi	Air	UV
12 NPS	16 NPS	109.5 in²	[12] 11.81 in	4.37 in	15-800 psi	Steam	UV
Design Name	e: 3800L, PC	L, PCM pil	ots	NBCert	# 57215		
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	
Assembler			UV		10	0/04/2025	
Design Type [Pilot Operated Pressure Relief Valve] 3800L, PCL, PCM pilots Capacity Tests: Sec. UV at Farris Engineering on February 4, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.782 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition(1): Pop; (3): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.15 in²	[D] 0.437 in	0.162 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.225 in ²	[E] 0.535 in	0.198 in	15-10000 psi	Water	UV
1-1.5 NPS	2 NPS	0.371 in²	[F] 0.687 in	0.254 in	15-10000 psi	Water	UV
1.5-2 NPS	2,3 NPS	0.559 in²	[G] 0.844 in	0.312 in	15-7000 psi	Water	UV
1.5-2 NPS	2, 3 NPS	0.873 in²	[H] 1.054 in	0.39 in	15-7000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.43 in ²	[J] 1.35 in	0.5 in	15-7000 psi	Water	UV
3 NPS	4 NPS	2.042 in ²	[K] 1.612 in	0.596 in	15-7000 psi	Water	UV
3-4 NPS	4,6 NPS	3.17 in ²	[L] 2.009 in	0.743 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	3.42 in ²	[L1] 2.088 in	0.773 in	15-4000 psi	Water	UV
3-4 NPS	4, 6 NPS	4 in ²	[M] 2.257 in	0.835 in	15-4000 psi	Water	UV
4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.917 in	15-4000 psi	Water	UV
4-6 NPS	6, 8 NPS	7.087 in ²	[P] 3.004 in	1.111 in	15-4000 psi	Water	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	1.462 in	15-2000 psi	Water	UV
6-8 NPS	8, 10 NPS	17.78 in ²	[R] 4.758 in	1.76 in	15-2000 psi	Water	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	2.246 in	15-2000 psi	Water	UV
Design Name	e: 4200 / 440	0		NBCert	# 57282		
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	
Assembler			UV, V		07	7/10/2027	

[Safety Valve] 4200 / 4400 Capacity Tests: Sec. UV, V at National Board Testing Lab on June 9, 2005 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.872 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25 NPS	1.5 NPS	0.316 in ²	[F] 0.634 in	0.159 in	15-1480 psi	Steam	UV, V
1.25 NPS	1.5 NPS	0.518 in ²	[G] 0.812 in	0.203 in	15-1480 psi	Steam	UV, V
1.5 NPS	2.5 NPS	0.809 in ²	[H] 1.015 in	0.254 in	15-1480 psi	Steam	UV, V
1.5 NPS	2.5 NPS	1.325 in ²	[J] 1.299 in	0.325 in	15-1480 psi	Steam	UV, V
2 NPS	3 NPS	1.897 in ²	[K] 1.554 in	0.389 in	15-1480 psi	Steam	UV, V
2.5 NPS	4 NPS	2.938 in ²	[L] 1.934 in	0.484 in	15-1480 psi	Steam	UV, V
3 NPS	4 NPS	3.822 in ²	[M] 2.206 in	0.552 in	15-1480 psi	Steam	UV, V
4 NPS	6 NPS	4.471 in ²	[N] 2.386 in	0.597 in	15-1480 psi	Steam	UV, V
4 NPS	6 NPS	6.573 in ²	[P] 2.893 in	0.723 in	15-1480 psi	Steam	UV, V
6 NPS	8 NPS	11.389 in ²	[Q] 3.808 in	0.952 in	15-1480 psi	Steam	UV, V

esign Name: 6400/6600 (previously)

NBCert #

7 57040

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	07/10/2027

Design Type

[Safety Valve] 6400/6600 (previously 2500 & 4600)

Capacity Tests: Sec. UV, V at Ohio State University (Robinson Laboratory) on January 28, 1972

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.858 Unitless

Media - Test: Steam; Certified: Air, Gas, Steam

Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift

Designed by: Farris Engineering {TFO}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.15 in ²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	V
1-1.5 NPS	2 - 3 NPS	0.15 in²	[D] 0.437 in	0.109 in	15-2900 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	V
1-1.5 NPS	2 - 3 NPS	0.225 in ²	[E] 0.535 in	0.134 in	15-2900 psi	Steam	UV
1.5 NPS	2 - 3 NPS	0.371 in ²	[F] 0.687 in	0.172 in	15-2900 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	V
1.5 NPS	2 - 3 NPS	0.371 in²	[F] 0.687 in	0.172 in	15-2900 psi	Steam	UV
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Air	UV
1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Steam	V

1.5-2 NPS	2.5 - 3 NPS	0.559 in ²	[G] 0.844 in	0.211 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Air	UV
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Steam	V
1.5-2 NPS	3 NPS	0.873 in ²	[H] 1.054 in	0.264 in	15-2900 psi	Steam	UV
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Air	UV
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Steam	V
2-3 NPS	3 - 4 NPS	1.43 in ²	[J] 1.35 in	0.338 in	15-2900 psi	Steam	UV
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Air	UV
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Steam	V
2.5-3 NPS	4, 6 NPS	2.042 in ²	[K] 1.612 in	0.403 in	15-2900 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Air	UV
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Steam	V
3-4 NPS	4, 6 NPS	3.17 in ²	[L] 2.009 in	0.502 in	15-2900 psi	Steam	UV
3-4 NPS	6 NPS	4 in²	[M] 2.257 in	0.564 in	15-2900 psi	Air	UV
3-4 NPS	6 NPS	4 in²	[M] 2.257 in	0.564 in	15-2900 psi	Steam	V
3-4 NPS	6 NPS	4 in²	[M] 2.257 in	0.564 in	15-2900 psi	Steam	UV
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Air	UV
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Steam	V
3-4 NPS	6 NPS	4.822 in ²	[N] 2.478 in	0.62 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Air	UV
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Steam	V
4 NPS	6 NPS	7.087 in ²	[P] 3.004 in	0.751 in	15-2900 psi	Steam	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Air	UV
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Steam	V
6 NPS	8 NPS	12.27 in ²	[Q] 3.952 in	0.988 in	15-2000 psi	Steam	UV
6 NPS	8 , 10 NPS	17.78 in ²	[R] 4.758 in	1.19 in	15-2000 psi	Air	UV
6 NPS	8 , 10 NPS	17.78 in ²	[R] 4.758 in	1.19 in	15-2000 psi	Steam	V
6 NPS	8 , 10 NPS	17.78 in ²	[R] 4.758 in	1.19 in	15-2000 psi	Steam	UV
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Air	UV
8 NPS	10 NPS	28.94 in²	[T] 6.07 in	1.518 in	15-1500 psi	Steam	V
8 NPS	10 NPS	28.94 in ²	[T] 6.07 in	1.518 in	15-1500 psi	Steam	UV

Precision Fitting & Gauge (PFG)

Tulsa, OK 74112United States

This Company Manufactures or Assembles:

Design Name:	1541, 1543, 1541-3, 1543-3	NBCert #	180	32
Manufacturer/Assem	bler	Designators		Expiration Date
Assembler		UV, V		06/05/2024

Nameplate Abbreviation: PFG

[Safety Valve] 1541, 1543, 1541-3, 1543-3 Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-300 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV

Design Name:

Manufacturer/Assembler	Designators	Expiration Date
Assembler	V	11/15/2024

[Safety Valve] 1700 & 2700 Capacity Tests: Sec. UV, V at Dresser, Inc. on August 1, 1957 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	3 NPS	0.442 in ²	[#9] 0.75 in	0.188 in	15-3000 psi	Steam	UV
1-1.5 NPS	3 NPS	0.442 in ²	[#9] 0.75 in	0.188 in	50-3000 psi	Steam	V
1.25-2.5 NPS	3, 4 NPS	0.994 in²	[#1] 1.125 in	0.281 in	15-3100 psi	Steam	UV
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[#1] 1.125 in	0.281 in	50-5800 psi	Steam	V
1.5-2.5 NPS	3 - 6 NPS	1.431 in²	[#2] 1.35 in	0.338 in	15-3100 psi	Steam	UV
1.5-2.5 NPS	3 - 6 NPS	1.431 in ²	[#2] 1.35 in	0.338 in	50-5800 psi	Steam	V
4 NPS	4 dual NPS	1.84 in ²	[K] 1.531 in	0.383 in	50-5800 psi	Steam	V
2-3 NPS	6 NPS	2.545 in ²	[#3] 1.8 in	0.45 in	50-5800 psi	Steam	UV, V
2.5-2.5 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-2575 psi	Steam	UV
2.5-2.5 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	50-2575 psi	Steam	V
2.5-3 NPS	6, 8 NPS	3.341 in ²	[#5] 2.062 in	0.516 in	15-3100 psi	Steam	UV
2.5-3 NPS	6, 8 NPS	3.341 in ²	[#5] 2.062 in	0.516 in	50-5800 psi	Steam	V
3-3 NPS	6, 8 NPS	3.976 in ²	[#4] 2.25 in	0.563 in	15-3100 psi	Steam	UV
3-3 NPS	6, 8 NPS	3.976 in ²	[#4] 2.25 in	0.563 in	50-5800 psi	Steam	V
4 NPS	6,8 NPS	7.07 in ²	[#6] 3 in	0.75 in	15-3100 psi	Steam	UV
4 NPS	6,8 NPS	7.07 in ²	[#6] 3 in	0.75 in	50-3100 psi	Steam	V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-2000 psi	Steam	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	50-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.948 in	0.987 in	15-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.948 in	0.987 in	15-2000 psi	Steam	UV
6 NPS	8, 10 NPS	14.18 in ²	[#8] 4.25 in	1.063 in	15-1800 psi	Steam	UV
6 NPS	8, 10 NPS	14.18 in ²	[#8] 4.25 in	1.063 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	16 in ²	[R] 4.515 in	1.129 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	1.129 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	19.29 in ²	[RR] 4.956 in	1.24 in	50-2200 psi	Steam	UV, V
8-10 NPS	10,12 NPS	28.3 in ²	[T] 6 in	1.5 in	50-1500 psi	Steam	UV, V
Design Name	e: 1700 & 270 # 18100)	00 (Restrict	ed Lift version of	⁻ Cert. _{NBCert} #	# 18111		
Manufacturer/A	ssembler		Designato	ors	E>	piration Date	

Manufacturer/Assembler	Designators	Expiration Date
Assembler	V	11/15/2024

[Safety Valve] 1700 & 2700 (Restricted Lift version of Cert. # 18100) Capacity Tests: Sec. UV, V at unknown lab on October 13, 1981 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless; Certification Provisions: Restricted Lift (Prev. CC 1923 &/or 1945) Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	3 NPS	0.442 in ²	[9] 0.75 in	0.08 in	15-3000 psi	Steam	UV
1-1.5 NPS	3 NPS	0.442 in ²	[9] 0.75 in	0.08 in	50-3000 psi	Steam	V
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[1] 1.125 in	0.084 in	15-3100 psi	Steam	UV
1.25-2.5 NPS	3, 4 NPS	0.994 in ²	[1] 1.125 in	0.084 in	50-5800 psi	Steam	V
1.5-2.5 NPS	3-6 NPS	1.431 in²	[2] 1.35 in	0.101 in	15-3100 psi	Steam	UV
1.5-2.5 NPS	3-6 NPS	1.431 in ²	[2] 1.35 in	0.101 in	50-5800 psi	Steam	V
2-3 NPS	6 NPS	2.545 in ²	[3] 1.8 in	0.135 in	15-3100 psi	Steam	UV
2-3 NPS	6 NPS	2.545 in ²	[3] 1.8 in	0.135 in	50-5800 psi	Steam	V
2.5-3 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.143 in	15-2575 psi	Steam	UV
2.5-3 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.143 in	50-2575 psi	Steam	V
2.5-3 NPS	6, 8 NPS	3.341 in ²	[5] 2.062 in	0.155 in	15-3100 psi	Steam	UV
2.5-3 NPS	6, 8 NPS	3.341 in ²	[5] 2.062 in	0.155 in	50-5800 psi	Steam	V
3-4 NPS	6, 8 NPS	3.976 in ²	[4] 2.25 in	0.169 in	15-3100 psi	Steam	UV
3-4 NPS	6, 8 NPS	3.976 in ²	[4] 2.25 in	0.169 in	50-5800 psi	Steam	V
4 NPS	6, 8 NPS	7.07 in ²	[6] 3 in	0.225 in	15-3100 psi	Steam	UV
4 NPS	6, 8 NPS	7.07 in ²	[6] 3 in	0.225 in	50-3100 psi	Steam	V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.281 in	15-2000 psi	Steam	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.281 in	50-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.946 in	0.296 in	15-2000 psi	Steam	UV, V
6-8 NPS	8, 10 NPS	14.18 in ²	[8] 4.25 in	0.319 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	14.18 in ²	[8] 4.25 in	0.319 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	0.339 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	0.339 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	19.29 in ²	[RR] 4.956 in	0.372 in	50-2200 psi	Steam	V
8-10 NPS	10, 12 NPS	28.3 in ²	[T] 6 in	0.45 in	50-1500 psi	Steam	UV, V

 Design Name:
 1811, 1511
 NBCert #
 18122

 Manufacturer/Assembler
 Designators
 Expiration Date

 Assembler
 UV, V
 04/22/2027

[Safety Valve] 1811, 1511 Capacity Tests: Sec. UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Steam	UV, V
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Air	UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Steam	UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Air	UV
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Air	UV
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Air	UV
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Steam	UV, V
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Air	UV
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Steam	UV, V
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Air	UV
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Steam	UV, V
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Air	UV
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV
Design Name	e: 1900, 190()-30, 1900-	.35	NBCert a	# 18201		
Manufacturer/A	ssembler		Designato	ors	E>	piration Date	
Assembler			UV		04	/22/2027	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	lve] 1900, 1900-30, Sec. NV, UV at Dress lishing Relieving Cap 0.855 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ}	1900-35 eer, Inc. on Oct pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift	ober 11, 1954 pacity, K eam				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV

1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV
Design Name	e: 19000 Seri	ies		NBCert #	<i>‡</i> 18706		
Manufacturer/A	ssembler		Designato	rs	E>	piration Date	

UV

Assembler

04/27/2027

[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV
Design Name	e: 19000 <u>Ser</u> i	ies, Liquid		NBCert #	ŧ 187 <u>1</u> 7		

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/27/2027

[Relief Valve] 19000 Series, Liquid Capacity Tests: Sec. UV at Dresser, Inc. on August 30, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.673 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV
Design Name: 1900D-2, 1900-30D-2 NBCert # 18144							
Design Name	e. 1900D-2,	1300-30D-2			+ 10144		
Design Name Manufacturer/A	ssembler	1900-30D-2	Designato	ors	Ex	piration Date	_
Design Name Manufacturer/A Assembler	ssembler	1900-00D-2	Designato UV	rs	Ex	piration Date	_
Design Name Manufacturer/A Assembler Design Type	ssembler	1900-00D-2	Designato UV	irs	- 10144 Ex 04	piration Date	_
Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: S Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	ssembler live] 1900D-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 5.630 PPH/PSIA; (alt /Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ}	30D-2 er, Inc. on Aug eacity: Flow Ca ernate medium ed: Air, Gas, Sto e (Single Ring) ift	UV UV ust 16, 1977 pacity, Slope): 2.004 SCFM/PSIA eam	ors	- 10144 Ex 04	piration Date	
Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: S Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	ssembler live] 1900D-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 5.630 PPH/PSIA; (alt c/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size	30D-2 er, Inc. on Aug pacity: Flow Ca ernate medium ed: Air, Gas, Ste e (Single Ring) ift Flow Area	Designato UV ust 16, 1977 pacity, Slope): 2.004 SCFM/PSIA eam Orifice [designator] dia.	Lift	Set Pressure Range	Apiration Date	Designator
Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: S Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 1-1.5 NPS	ssembler live] 1900D-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 5.630 PPH/PSIA; (alt r/Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size 2-3 NPS	30D-2 er, Inc. on Aug pacity: Flow Ca ernate medium ed: Air, Gas, Ste e (Single Ring) ift Flow Area 0.1279 in ²	Designato UV ust 16, 1977 pacity, Slope): 2.004 SCFM/PSIA eam Orifice [designator] dia. [D] 0.674 in	Lift 0.066 in	Set Pressure Range 15-4230 psi	Apiration Date /22/2027 Media Steam	Designator NV, UV
Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: § Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 1-1.5 NPS 1-1.5 NPS	ssembler live] 1900D-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 5.630 PPH/PSIA; (alt r/Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size 2-3 NPS 2-3 NPS	30D-2 er, Inc. on Aug vacity: Flow Ca ernate medium ed: Air, Gas, Ste e (Single Ring) ift Flow Area 0.1279 in ² 0.1279 in ²	Designato UV ust 16, 1977 pacity, Slope): 2.004 SCFM/PSIA eam Orifice [designator] dia. [D] 0.674 in [D] 0.674 in	Lift 0.066 in 0.066 in	Set Pressure Range I 15-4230 psi 15-6250 psi	Media Steam Air	Designator NV, UV UV
Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 6 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 1-1.5 NPS 1-1.5 NPS	ssembler Ive] 1900D-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 5.630 PPH/PSIA; (alt /Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS	30D-2 ber, Inc. on Aug bacity: Flow Cap ernate medium ed: Air, Gas, Ste e (Single Ring) ift Flow Area 0.1279 in ² 0.1279 in ² 1900-30D-2	Designato UV ust 16, 1977 pacity, Slope): 2.004 SCFM/PSIA earm Orifice [designator] dia. [D] 0.674 in [D] 0.674 in	Lift 0.066 in 0.066 in uids) NBCert #	Set Pressure Range 15-4230 psi 15-6250 psi 4	Media Steam Air	Designator NV, UV UV
Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 5 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 1-1.5 NPS 1-1.5 NPS Design Name Manufacturer/A	ssembler Ive] 1900D-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 5.630 PPH/PSIA; (alt /Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 5: 1900D-2, ⁴ ssembler	30D-2 er, Inc. on Aug pacity: Flow Cap ernate medium ed: Air, Gas, Ste e (Single Ring) ift Flow Area 0.1279 in ² 0.1279 in ² 1900-30D-2	Designato UV ust 16, 1977 pacity, Slope): 2.004 SCFM/PSIA earm Orifice [designator] dia. [D] 0.674 in [D] 0.674 in [D] 0.674 in	Lift 0.066 in 0.066 in uids) NBCert #	Set Pressure Range 15-4230 psi 15-6250 psi # 18751 Ex	Media Steam Air	Designator NV, UV UV

Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.256 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V
Design Name	e: 1900E-2, 1	900-30E-2		NBCert #	ŧ 18166		

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/22/2027
Design Type		
[Safety Relief Valve] 1900E-2, 1900-30E-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 19 Method of Establishing Relieving Capacity: Flow Capacity, Slo Certified Value:10.040 PPH/PSIA; (alternate medium): 3.570 S Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift	77 pe SCFM/PSIA	

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV

Precision Pump & Valve Service, Inc. (PPV)

Cross Lanes, WV 25313United States

This Company Manufactures or Assembles:

Design Name: 1541, 1543, 1541-3, 1543-3		NBCert # 1	8032
Manufacturer/Assembler	Designators		Expiration Date
Assembler	UV, V		04/14/2028
Design Type [Safety Valve] 1541, 1543, 1541-3, 1543-3 Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on March 11, 1 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}	975		

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-0.75 NPS	.75 NPS	0.11 in²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V		
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV		
0.5-0.75 NPS	.75 NPS	0.11 in²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V		
0.5-0.75 NPS	.75 NPS	0.11 in²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV		
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V		
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV		
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V		
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV		
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V		
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV		
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V		
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV		
2-2.5 NPS	2.5 NPS	1.287 in²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V		
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV		
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-300 psi	Steam	NV, UV, V		
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV		
Design Name	e: 1811.151 [.]	1		NBCert :	# 18122				
Manufacturer/A	complex		Designat		E	nization Data			
Manufacturer/A	ssembler		Designation	5					
Assembler			UV, V		05	/25/2024			
Design Type	011 1511								
[Sarety Valve] 1 Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	[Safety Valve] 1811, 1511 Capacity Tests: Sec. UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Steam	UV, V		
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Air	UV		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Steam	UV, V		

1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Air	UV
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Air	UV
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Air	UV
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Steam	UV, V
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Air	UV
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Steam	UV, V
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Air	UV
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Steam	UV, V
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Air	UV
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV
Design Name	e: 1900, 1900 (Liquids)	0-30 1900-3	35 LA & DALA	NBCert ;	# 18784		
Manufacturer/A	ssembler		Designato	ors	E	piration Date	

Manufacturer/Assembler	Designators	
Assembler	UV, V	04/17/2025

Design Type

[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V
1.5-1.5 NPS	2 - 3 NPS	0.357 in²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V
6-6 NPS	8 NPS	12.851 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V

6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	28.624 in²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	30.21 in²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V		
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V		
12-12 NPS	16 NPS	78.996 in²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V		
Design Name: 1900, 1900-30, 1900-35 NBCert # 18201									
Manufacturer/A	ssembler		Designato	ors	Ex	cpiration Date)		
Assembler			UV		04	/14/2028			
Design Type									
[Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV		
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV		
1.5 NPS	2-3 NPS	0.3568 in²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV		
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV		
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV		
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV		
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV		
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV		
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV		
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV		
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV		
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV		
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV		
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV		
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV		
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV		
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV		
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV		
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV		
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV		

6 NPS	8 NPS	12.85 in²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV		
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV		
6 NPS	8, 10 NPS	18.6 in²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV		
8 NPS	10 NPS	28.624 in²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV		
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV		
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV		
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV		
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV		
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV		
10 NPS	14 NPS	50.26 in²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV		
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV		
12 NPS	16 NPS	78.996 in²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV		
12 NPS	16 NPS	78.996 in²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV		
Dooign Nome	. 10000 Sor	ioo		NDCort	# 19706				
Design Name	e. 19000-Sei	les		NDCen	# 10700				
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date)		
Assembler			UV		04	4/17/2025	NV, UV NV, UV		
Design Type									
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV
0.5-1 NPS	1 NPS	0.11 in²	0.375 in	0.118 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV

1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV

Design Name: 19000 Series, Liquid	NBCert # 187	
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/08/2025
Design Type		
[Relief Valve] 19000 Series, Liquid Capacity Tests: Sec. UV at Dresser, Inc. on August 30, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K		

Certified Value: 0.673 Unitless

Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV

Design Name:	1900D-2, 1900-30D-2		NBCert # 181	44
Manufacturer/Assem	bler	Designators		Expiration Date
Assembler		UV		04/14/2028

Design Type

[Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Designed by: Dr	esser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV		
Design Name: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751									
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	9		
Assembler			UV, V		05	5/25/2024			
Design Type	Design Type								
[Relief Valve] 15 Capacity Tests: 3 Method of Estab Certified Value: 3 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	[Relief Valve] 1900D-2, 1900-30D-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.256 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by Dresser LL (CIPD I)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V		
Design Name	e: 1900E-2, ²	1900-30E-2	2	NBCert	# 18166				
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	9		
Assembler			UV		05	5/25/2024			
Design Type									

[Safety Relief Valve] 1900E-2, 1900-30E-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value:10.040 PPH/PSIA; (alternate medium): 3.570 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV

Design Name: 1900E-2, 1900-30E-2 LA & DALA (Liquids) NBCert

0							
Manufacturer/	Assembler		Designat	ors	E	Expiration Date	e
Assembler			UV, V		(04/14/2028	
Design Type							
[Relief Valve] 1 Capacity Tests: Method of Esta Certified Value: Media - Test: V Set Pressure D Blowdown Cha Flow Area Cont Designed by: D	1900E-2, 1900-30E-2 Sec. NV, UV, V at Dublishing Relieving Ca 5.798 GPM/SQ.RT. Vater/Liquid; Certified Pefinition: First Steady racteristics: Fixed figuration: Restricted Dresser, LLC {DRJ}	LA & DALA (Lic resser, Inc. on J pacity: Flow Ca PSID I: Liquid / Stream Lift	quids) luly 12, 1995 pacity, Flow Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V
Design Nam	ne: 1982			NBCert	# 18379	9	
Manufacturer/	Assembler		Designat	ors	E	Expiration Date	e
Assembler			UV		()5/25/2024	
Design Type							
[Safety Relief V Capacity Tests: Method of Esta Certified Value: Media - Test: S Set Pressure D Blowdown Cha Flow Area Cont Designed by: D	/alve] 1982 Sec. NV, -Class 2, -(blishing Relieving Ca 0.855 Unitless Steam; Certified: Air, (Definition: Pop racteristics: Fixed figuration: Nozzle/Ful Dresser, LLC {DRJ}	Class 3, UV at N pacity: Flow Ca Gas, Steam I Lift	National Board Testing apacity, K	Lab (Picaway) on I	May 6, 1980		
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5 NPS	.75 NPS	0.121 in ²	0.393 in	0.092 in	15-500 psi	Air	NV, UV
0.5 NPS	.75 NPS	0.121 in ²	0.393 in	0.092 in	15-500 psi	Steam	NV, UV
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Air	NV, UV
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Steam	NV, UV
1 NPS	1.5 NPS	0.332 in ²	0.65 in	0.15 in	15-500 psi	Air	NV, UV
1 NPS	1.5 NPS	0.332 in ²	0.65 in	0.15 in	15-500 psi	Steam	NV, UV
1.5 NPS	2 NPS	0.857 in ²	1.045 in	0.243 in	15-500 psi	Air	NV, UV
1.5 NPS	2 NPS	0.857 in ²	1.045 in	0.243 in	15-500 psi	Steam	NV, UV
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.31 in	15-500 psi	Steam	NV, UV
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.31 in	15-500 psi	Air	NV, UV

Design Name: Designators Expiration Date Manufacturer/Assembler UV 04/14/2028

Assembler

[Relief Valve] 1982 LS, 820000LS Capacity Tests: Sec. UV at Dresser, Inc. on December 19, 1984 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.758 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75 - 1 NPS	0.121 in ²	0.393 in	0.137 in	15-500 psi	Water	NV
0.5-0.75 NPS	.75 - 1 NPS	0.121 in ²	0.393 in	0.137 in	15-500 psi	Water	UV
0.75-1 NPS	1 , 1.5 NPS	0.216 in ²	0.524 in	0.162 in	15-500 psi	Water	NV
0.75-1 NPS	1 , 1.5 NPS	0.216 in ²	0.524 in	0.162 in	15-500 psi	Water	UV
1-1.25 NPS	1.5 NPS	0.332 in ²	0.65 in	0.236 in	15-500 psi	Water	NV
1-1.25 NPS	1.5 NPS	0.332 in ²	0.65 in	0.236 in	15-500 psi	Water	UV
1.5-2 NPS	2, 2.5 NPS	0.857 in ²	1.045 in	0.343 in	15-500 psi	Water	NV
1.5-2 NPS	2, 2.5 NPS	0.857 in ²	1.045 in	0.343 in	15-500 psi	Water	UV
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.43 in	15-500 psi	Water	NV
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.43 in	15-500 psi	Water	UV

Relevant Industrial, LLC, DBA Precision Fitting & Gauge, LLC (POK)

Tulsa, OK 74116United States

This Company Manufactures or Assembles:

Design Name	e: 1900, 1900 (Liquids))-30 1900-3	35 LA & DALA	NBCe	rt # 18784				
Manufacturer/A	ssembler		Designa	itors	E	xpiration Date	•		
Assembler	er				0	2/10/2028			
Design Type									
[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V		
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V		
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V		
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V		
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V		

2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V		
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V		
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V		
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V		
6-6 NPS	8 NPS	12.851 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V		
6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V		
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V		
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V		
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V		
Design Name: 1900, 1900-30, 1900-35 NBCert # 18201									
Manufacturer		— • • •							
Manufacturer/P	ssembler		Designato	ors	E>	piration Date	,		
Assembler	Assembler		UV	brs	02	/10/2028			
Assembler Design Type	ssembler		UV	ors	02	(10/2028			
Assembler Design Type [Safety Relief Va Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr	alve] 1900, 1900-30, Sec. NV, UV at Dress blishing Relieving Cap 0.855 Unitless r/Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ}	1900-35 ser, Inc. on Oct bacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift	UV UV ober 11, 1954 pacity, K eam	ors	02	/10/2028			

Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV

4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV		
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV		
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV		
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV		
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV		
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV		
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV		
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV		
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV		
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV		
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV		
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV		
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV		
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV		
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV		
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV		
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV		
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV		
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV		
12 NPS	16 NPS	78.996 in²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV		
Design Name	e: 19000 Ser	ies		NBCert #	# 18706	;			
Manufacturer/Assembler				Designators			Expiration Date		

02/10/2028

UV

Design Type

[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV

0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV

Design Name:

)00 Series Liqui

NBCert #

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2028

Design Type

[Relief Valve] 19000 Series, Liquid Capacity Tests: Sec. UV at Dresser, Inc. on August 30, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.673 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV
0.5-1 NPS	1 NPS	0.11 in²	0.375 in	0.118 in	15-290 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in²	0.375 in	0.118 in	15-290 psi	Water	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV
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2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV
Design Name	e: 1900D-2, ⁷	1900-30D-2		NBCert ;	¥ 18144		
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Assembler			UV		02	2/10/2028	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: S Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	live] 1900D-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 5.630 PPH/PSIA; (alt r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ}	-30D-2 ser, Inc. on Aug pacity: Flow Ca ternate medium ed: Air, Gas, Sto e (Single Ring) Lift	ust 16, 1977 pacity, Slope): 2.004 SCFM/PSIA eam				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV
Design Name	e: 1900D-2, ⁻	1900-30D-2	LA & DALA (Liq	uids) NBCert /	4 18751		
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date	
Assembler					01	2/10/2028	
Assembler			0V, V		02	2/10/2020	
Design Type			υν, ν		02	2/10/2028	
Design Type [Relief Valve] 19 Capacity Tests: 3 Method of Estab Certified Value: 3 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	000D-2, 1900-30D-2 Sec. NV, UV, V at Dro lishing Relieving Cap 3.256 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	LA & DALA (Lic esser, Inc. on Jo pacity: Flow Ca PSID Liquid Stream .ift	quids) uly 12, 1995 pacity, Flow Factor			2/10/2020	
Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size	000D-2, 1900-30D-2 Sec. NV, UV, V at Dro lishing Relieving Cap 3.256 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size	LA & DALA (Lic esser, Inc. on Jo pacity: Flow Ca SID Liquid Stream Lift Flow Area	Quids) July 12, 1995 pacity, Flow Factor Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Design Type [Relief Valve] 19 Capacity Tests: 5 Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 1-1.5 NPS	200D-2, 1900-30D-2 Sec. NV, UV, V at Dro lishing Relieving Cap 3.256 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size 2 - 3 NPS	LA & DALA (Lic esser, Inc. on Jo pacity: Flow Ca SID Liquid Stream Lift Flow Area 0.1279 in ²	Quids) uly 12, 1995 pacity, Flow Factor Orifice [designator] dia. [D] 0.674 in	Lift 0.056 in	Set Pressure Range 15-6250 psi	Media Water	Designator NV, UV, V
Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS Design Name	200D-2, 1900-30D-2 Sec. NV, UV, V at Dro lishing Relieving Cap 3.256 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size 2 - 3 NPS : 1900E-2, ⁴	LA & DALA (Lic esser, Inc. on Jo pacity: Flow Ca SID Liquid Stream .ift Flow Area 0.1279 in ²	Ov, v quids) uly 12, 1995 pacity, Flow Factor Orifice [designator] dia. [D] 0.674 in	Lift 0.056 in NBCert #	Set Pressure Range 15-6250 psi # 18166	Media Water	Designator NV, UV, V
Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS Design Name Manufacturer/A	200D-2, 1900-30D-2 Sec. NV, UV, V at Dro lishing Relieving Cap 3.256 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size 2 - 3 NPS : 1900E-2, ssembler	LA & DALA (Lic esser, Inc. on Jo pacity: Flow Ca SID Liquid Stream .ift Flow Area 0.1279 in ²	Quids) uly 12, 1995 pacity, Flow Factor Orifice [designator] dia. [D] 0.674 in Designato	Lift 0.056 in NBCert #	Set Pressure Range 15-6250 psi # 18166 E	Media Water xpiration Date	Designator NV, UV, V
Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS Design Name Manufacturer/A Assembler	200D-2, 1900-30D-2 Sec. NV, UV, V at Dro lishing Relieving Cap 3.256 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size 2 - 3 NPS : 1900E-2, ssembler	LA & DALA (Lic esser, Inc. on Jo pacity: Flow Ca SID Liquid Stream .ift Flow Area 0.1279 in ²	UV, V quids) uly 12, 1995 pacity, Flow Factor Orifice [designator] dia. [D] 0.674 in Designato	Lift 0.056 in NBCert #	Set Pressure Range 15-6250 psi # 18166 E 02	Media Water xpiration Date 2/10/2028	Designator NV, UV, V
Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS Design Name Manufacturer/A Assembler Design Type	200D-2, 1900-30D-2 Sec. NV, UV, V at Dro lishing Relieving Cap 3.256 GPM/SQ.RT. F ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ} Outlet Size 2 - 3 NPS : 1900E-2, ssembler	LA & DALA (Lic esser, Inc. on Ju pacity: Flow Ca SID Liquid Stream Lift Flow Area 0.1279 in ²	Ov, v quids) uly 12, 1995 pacity, Flow Factor Orifice [designator] dia. [D] 0.674 in Designato UV	Lift 0.056 in NBCert #	Set Pressure Range 15-6250 psi # 18166 E 0:	Media Water xpiration Date 2/10/2028	Designator NV, UV, V

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV		
Design Name: 1900E-2, 1900-30E-2 LA & DALA (Liquids) NBCert # 18762									
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date			
Assembler			UV, V		02/	10/2028			
Design Type									
[Relief Valve] 1900E-2, 1900-30E-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 5.798 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 - 3 NPS	0.2279 in²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V		
Design Name: 3900 (39PV, 39MV pilots) NBCert # 18447									
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date			
Assembler			UV		02/	10/2028			
Design Type									
Design Type [Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on May 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift									
Pesign Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: 0 Media - ; Certifie Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ}] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift	39MV pilots) 1988 pacity, K Discharge Mod. Pilot						
Pesign Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: (Media - ; Certifie Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift Flow Area	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
Pesign Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: 0 Media - ; Certifie Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift Flow Area 0.128 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in	Lift 0.205 in	Set Pressure Range 15-6250 psi	Media	Designator		
Pesign Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - ; Certifie Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS 2 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift Flow Area 0.128 in ² 0.128 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in	Lift 0.205 in 0.205 in	Set Pressure Range 15-6250 psi 15-750 psi	Media Air Steam	Designator UV NV		
Pesign Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - ; Certifie Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS 1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS 2 NPS 2 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift Flow Area 0.128 in ² 0.128 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in [D] 0.404 in [D] 0.404 in	Lift 0.205 in 0.205 in 0.205 in	Set Pressure Range 15-6250 psi 15-750 psi 15-750 psi	Media Air Steam	Designator UV NV UV		
Pesign Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - ; Certifie Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift Flow Area 0.128 in ² 0.128 in ² 0.128 in ² 0.128 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in [D] 0.404 in [D] 0.404 in [D] 0.404 in	Lift 0.205 in 0.205 in 0.205 in 0.205 in	Set Pressure Range 15-6250 psi 15-750 psi 15-750 psi 15-6250 psi	Media Air Steam Steam	Designator UV NV UV UV		
Design Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - ; Certifie Set Pressure Designed Value: O Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift Flow Area 0.128 in ² 0.128 in ² 0.128 in ² 0.228 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in [D] 0.404 in [D] 0.404 in [D] 0.404 in [E] 0.539 in [E] 0.539 in	Lift 0.205 in 0.205 in 0.205 in 0.25 in 0.25 in	Set Pressure 15-6250 psi 15-750 psi 15-750 psi 15-750 psi 15-750 psi 15-750 psi	Media Air Steam Steam Air	Designator UV NV UV UV		
Pesign Type [Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - ; Certifie Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS 2 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift Flow Area 0.128 in ² 0.128 in ² 0.128 in ² 0.228 in ² 0.228 in ² 0.228 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in [D] 0.404 in [D] 0.404 in [E] 0.539 in [E] 0.539 in	Lift 0.205 in 0.205 in 0.205 in 0.25 in 0.25 in	Set Pressure 15-6250 psi 15-750 psi	Media Air Steam Steam Air Steam	Designator UV NV UV NV UV		
Design Type[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - ; Certifie Set Pressure De Blowdown Chara Flow Area Config Designed by: DriInlet Size1-1.5 NPS1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS 2 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca and Fixed for Lift Flow Area 0.128 in ² 0.128 in ² 0.128 in ² 0.228 in ² 0.228 in ² 0.228 in ² 0.357 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in [D] 0.404 in [D] 0.404 in [E] 0.539 in [E] 0.539 in [E] 0.539 in	Lift 0.205 in 0.205 in 0.205 in 0.25 in 0.25 in 0.25 in	Set Pressure Range 15-6250 psi 15-750 psi	Media Air Steam Steam Air Steam Steam	Designator UV NV UV NV UV UV		
Design Type[Pilot Operated F Capacity Tests: 5 Method of Estab Certified Value: 0 Media - ; Certifie Set Pressure Designed by: DrawInlet Size1-1.5 NPS1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS 2 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift Flow Area 0.128 in ² 0.128 in ² 0.128 in ² 0.228 in ² 0.228 in ² 0.228 in ² 0.357 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in [D] 0.404 in [D] 0.404 in [E] 0.539 in [E] 0.539 in [E] 0.539 in [E] 0.674 in	Lift 0.205 in 0.205 in 0.205 in 0.25 in 0.25 in 0.25 in 0.25 in 0.25 in	Set Pressure 15-6250 psi 15-750 psi	Media Air Steam Steam Air Steam Steam Air Steam	Designator UV NV UV NV		
Design Type[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - ; Certifie Set Pressure Designed by: DriveBlowdown Chara Flow Area Config Designed by: DriveInlet Size1-1.5 NPS1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS 2 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca Initial Audible E and Fixed for Lift Flow Area 0.128 in ² 0.128 in ² 0.128 in ² 0.228 in ² 0.228 in ² 0.228 in ² 0.357 in ² 0.357 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in [D] 0.404 in [D] 0.404 in [D] 0.404 in [E] 0.539 in [E] 0.539 in [E] 0.539 in [E] 0.674 in [F] 0.674 in	Lift 0.205 in 0.205 in 0.205 in 0.25 in 0.25 in 0.25 in 0.25 in 0.25 in	Set Pressure 15-6250 psi 15-750 psi	Media Air Steam Steam Steam Steam Steam Air Steam	Designator UV NV UV NV UV UV UV NV UV UV UV UV UV UV UV UV UV		
Design Type[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: O Media - ; Certifie Set Pressure Designed by: DriveInlet Size1-1.5 NPS1-1.5 NPS	Pressure Relief Valve Sec. UV at Dresser, I lishing Relieving Cap 0.878 Unitless d: Air, Gas, Steam finition(1): Pop; (2): acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 2 NPS 2 NPS 3 NPS 3 NPS] 3900 (39PV, nc. on May 19, pacity: Flow Ca and Fixed for Lift Flow Area 0.128 in ² 0.128 in ² 0.128 in ² 0.228 in ² 0.228 in ² 0.228 in ² 0.357 in ² 0.357 in ² 0.357 in ² 0.585 in ²	39MV pilots) 1988 pacity, K Discharge Mod. Pilot Orifice [designator] dia. [D] 0.404 in [D] 0.404 in [D] 0.404 in [D] 0.404 in [E] 0.539 in [E] 0.539 in [E] 0.539 in [E] 0.674 in [F] 0.674 in [F] 0.674 in	Lift 0.205 in 0.205 in 0.205 in 0.205 in 0.25 in 0.25 in 0.25 in 0.25 in 0.25 in 0.25 in 0.25 in	Set Pressure 15-6250 psi 15-750 psi	Media Air Steam Steam Steam Steam Steam Air Steam Steam	Designator UV NV UV UV		

1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Air	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in²	1.437 in	0.25 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-750 psi	Steam	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	UV

8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Air	UV
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-700 psi	Steam	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-750 psi	Steam	UV
Design Nam	e: 3900 (39P	'V, 39MV pi	ilots, liquid)	NBCert	# 18458		
Manufacturer/A	Assembler		Designate	ors	E	xpiration Date	•
Assembler			UV		02	2/10/2028	
Design Type							
[Pilot Operated Capacity Tests: Method of Estak Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: Di	Pressure Relief Valve Sec. UV at Dresser, I blishing Relieving Caj 0.743 Unitless /ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full resser, LLC {DRJ}	e] 3900 (39PV, Inc. on June 1, pacity: Flow Ca : Liquid Stream Lift	39MV pilots, liquid) 1988 ipacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Water	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Water	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	UV

3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	UV
8 NPS	10 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	69.94 in ²	9.437 in	3 in	15-1500 psi	Water	UV

REMBE GmbH Safety+Control (REM)

Brilon, 59929Germany

This Company Manufactures or Assembles:

Design Name:	IG-UKB-LS				NBCert #	8403	35		
Manufacturer/As	sembler		Designate	ors			Expiration Da	ate	
Manufacturer			UD				12/17/2024		
Design Type									
[Rupture Disk Device] IG-UKB-LS-1 Capacity Tests: Sec. UD at National Board Testing Lab on August 13, 2013 Method of Establishing Relieving Capacity: Resistance Factor, 1 Size, Krg Certified Value: 2.800 Unitless Media - Test: Air/Gas; Certified: Compressible (Krg) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: REMBE GmbH Safety+Control {REM}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift		Set Pressure Range	Media	Designator	
1 NPS		0.7 in²				55-1450 psi	Air	UD	
Design Name:	KUB				NBCert #	8400)2		
Manufacturer/As	sembler		Designate	ors			Expiration Da	ate	
Manufacturer			UD				11/30/2027		

Nameplate Abbreviation: REMBE

[Rupture Disk Device] KUB HolderDesignation: IG-KUB(-S), IG-KUB-PTU(-S), G-KUB(-S) Capacity Tests: Sec. UD at National Board Testing Lab on July 24, 2000 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krg Certified Value: 0.700 Unitless Media - Test: Air/Gas; Certified: Compressible (Krg) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: REMBE GmbH Safety+Control {REM}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS		0.418 in ²			116-2320 psi		UD
1 NPS		0.698 in ²			94.3-2320 psi		UD
1.25 NPS		1.32 in ²			72.5-2320 psi		UD
1.5 NPS		1.7 in²			58-2320 psi		UD
10 NPS		68.2 in²			5.8-725 psi		UD
12 NPS		100.7 in²			2.9-435 psi		UD
14 NPS		133 in²			2.9-363 psi		UD
16 NPS		171 in²			2.9-363 psi		UD
18 NPS		230 in²			1.5-363 psi		UD
2 NPS		3.29 in ²			43.5-1885 psi		UD
2.5 NPS		4.72 in ²			29-1740 psi		UD
20 NPS		288 in²			1.5-290 psi		UD
24 NPS		420 in ²			0.7-290 psi		UD
26 NPS		480 in ²			0.7-247 psi		UD
28 NPS		570 in²			0.7-218 psi		UD
3 NPS		7.33 in ²			21.8-1740 psi		UD
30 NPS		657 in²			0.7-174 psi		UD
32 NPS		752 in²			0.7-145 psi		UD
4 NPS		12.4 in²			8.7-1595 psi		UD
5 NPS		18.6 in²			8.7-1450 psi		UD
6 NPS		27.9 in²			7.3-1160 psi		UD
8 NPS		43.4 in ²			7.3-870 psi		UD
84 mm		4700 mm ²	[SPL]		23-750 psi		UD
90.4 mm		5600 mm²	[SPL]		22-750 psi		UD

Design Name: KUB (Liquid)

Manufacturer/Assembler

Designators

UD

Expiration Date

03/26/2027

[Rupture Disk Device] KUB (Liquid) HolderDesignation: IG-KUB (-S) Capacity Tests: Sec. UD at National Board Testing Lab on November 24, 2014 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krl Certified Value: 3.510 Unitless Media - Test: Air/Gas; Certified: Incompressible (Krl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: REMBE GmbH Safety+Control {REM}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS		0.418 in ²			116-2175 psi	Water	UD
1 NPS		0.698 in ²			94-2175 psi	Water	UD
1.25 NPS		1.32 in ²			72.5-2030 psi	Water	UD
1.5 NPS		1.7 in²			58-1885 psi	Water	UD
10 NPS		68.2 in²			5.8-725 psi	Water	UD
12 NPS		100.7 in ²			2.9-435 psi	Water	UD
14 NPS		133 in²			2.9-363 psi	Water	UD
16 NPS		171 in²			2.9-363 psi	Water	UD
18 NPS		230 in²			1.5-363 psi	Water	UD
2 NPS		3.29 in ²			43.5-1885 psi	Water	UD
2.5 NPS		4.72 in ²			29-1740 psi	Water	UD
20 NPS		288 in²			1.5-290 psi	Water	UD
24 NPS		420 in ²			0.7-290 psi	Water	UD
26 NPS		480 in²			0.7-247 psi	Water	UD
28 NPS		570 in²			0.7-218 psi	Water	UD
3 NPS		7.33 in ²			21.8-1740 psi	Water	UD
30 NPS		657 in²			0.7-174 psi	Water	UD
32 NPS		752 in²			0.7-145 psi	Water	UD
4 NPS		12.4 in ²			8.7-1595 psi	Water	UD
5 NPS		18.6 in²			8.7 - 1450 psi	Water	UD
6 NPS		27.9 in²			7.3-1160 psi	Water	UD
8 NPS		43.4 in ²			7.3-1160 psi	Water	UD

 Design Name:
 SFD-HL(HP) (Air/Gas)
 NBCert #
 84079

 Manufacturer/Assembler
 Designators
 Expiration Date

 Manufacturer
 UD
 02/25/2025

Design Type

[Rupture Disk Device] SFD-HL(HP) (Air/Gas) HolderDesignation: IG-HL(-S), IG-HP(-S), G-HL(-S), G-HP(-S), IG-PTU-HL(-S), IG-PTU-HP(-S) Capacity Tests: Sec. UD at National Board Testing Lab on November 6, 2018 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krg Certified Value: 0.420 Unitless Media - Test: Air/Gas; Certified: Compressible (Krg) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: REMBE GmbH Safety+Control {REM}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
		24.8 in ²			29-6250 psi		UD	
		43.4 in ²			29-6250 psi		UD	
		68.2 in ²			29-6250 psi		UD	
		100.8 in ²			29-6250 psi		UD	
0.75 NPS		0.48 in ²			232-6250 psi		UD	
1 NPS		0.81 in ²			145-6250 psi		UD	
1.25 NPS		1.47 in ²			94.3-6250 ps		UD	
1.5 NPS		1.75 in ²			92.8-6250 ps		UD	
10 NPS		78.74 in²			29-6250 psi		UD	
12 NPS		113 in ²			29-6250 psi		UD	
14 NPS		137.8 in²			29-3750 psi		UD	
16 NPS		182.6 in ²			29-3750 psi		UD	
18 NPS		233.6 in ²			29-1500 psi		UD	
2 NPS		3.26 in ²			46.4-6250 ps		UD	
2.5 NPS		4.73 in ²			46.4-6250 ps		UD	
20 NPS		290.9 in²			29-1500 psi		UD	
22 NPS		354.5 in²			29-1500 psi		UD	
24 NPS		418 in ²			29-1500 psi		UD	
3 NPS		7.38 in ²			46.4-6250 ps		UD	
4 NPS		12.71 in ²			29-6250 psi		UD	
5 NPS		20 in ²			29-6250 psi		UD	
6 NPS		28.91 in²			29-6250 psi		UD	
8 NPS		49.99 in ²			29-6250 psi		UD	
Design Nam	e: SFD-HL(H	IP) (Liquid)		Ν	IBCert # 840	80		
Manufacturer/	Assembler		Desigr	nators		Expiration Da	te	
Manufacturer			UD			02/25/2025		
Design Type								
[Rupture Disk Device] SFD-HL(HP) (Liquid) HolderDesignation: IG-HL(-S), IG-HP(-S), G-HP(-S), IG-PTU-HL(-S), IG-PTU-HP(-S) Capacity Tests: Sec. UD at National Board Testing Lab on November 6, 2018 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krl Certified Value: 0.790 Unitless Media - Test: Air/Gas; Certified: Incompressible (Krl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: REMBE GmbH Safety+Control {REM}								
Inlet Size	Outlet Size	Flow Area	Orifice	Lift	Set Pressure	Media	Designator	

Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Set Pressure Range	Media	Designator	
		24.8 in ²			29-6250 psi		UD	
		43.4 in ²			29-6250 psi		UD	
		68.2 in ²			29-6250 psi		UD	
		100.8 in ²			29-6250 psi		UD	

Manufacturer/Assem	ibler	Designators	Expiration Date
Design Name:	TCR-(SGK)KUB	NBCert # 8409	91
8 NPS	49.99 in ²	29-6250 psi	UD
6 NPS	28.91 in ²	29-6250 psi	UD
5 NPS	20 in ²	29-6250 psi	UD
4 NPS	12.71 in ²	29-6250 psi	UD
3 NPS	7.38 in ²	46.4-6250 psi	UD
24 NPS	418 in ²	29-1500 psi	UD
22 NPS	354.5 in²	29-1500 psi	UD
20 NPS	290.9 in ²	29-1500 psi	UD
2.5 NPS	4.73 in ²	46.4-6250 psi	UD
2 NPS	3.26 in ²	46.4-6250 psi	UD
18 NPS	233.6 in ²	29-1500 psi	UD
16 NPS	182.6 in ²	29-3750 psi	UD
14 NPS	137.8 in²	29-3750 psi	UD
12 NPS	113 in ²	29-6250 psi	UD
10 NPS	78.74 in²	29-6250 psi	UD
1.5 NPS	1.75 in²	92.8-6250 psi	UD
1.25 NPS	1.47 in ²	94.3-6250 psi	UD
1 NPS	0.81 in ²	145-6250 psi	UD
0.75 NPS	0.48 in ²	232-6250 psi	UD

Manufacturer	UD	07/29/2025

Design Type

[Rupture Disk Device] TCR-(SGK)KUB HolderDesignation: N/A

Capacity Tests: Sec. UD at National Board Testing Lab on April 8, 2019 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krg Certified Value: 6.860 Unitless

Media - Test: Air/Gas; Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure

Flow Area Configuration: MNFA Designed by: REMBE GmbH Safety+Control {REM}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.341 in ²	0.87 in		50.9-363 psi		UD
25 DN		0.341 in²	0.89 in		50.9-363 psi		UD
26.9 DN		0.341 in²	0.933 in		50.9-363 psi		UD
25 DN		0.465 in ²	1.02 in		50.9-363 psi		UD
33.7 DN		0.543 in²	1.17 in		50.9-363 psi		UD
33.7 DN		0.775 in²	1.23 in		29.1-363 psi		UD
32 DN		0.775 in²	1.26 in		29.1-363 psi		UD
1.5 NPS		1.01 in ²	1.37 in		29.1-363 psi		UD
38 DN		1.01 in ²	1.4 in		29.1-363 psi		UD
40 DN		1.24 in ²	1.48 in		29.1-363 psi		UD

40 DN	1.24 in ²	1.5 in	29.1-363 psi	UD
42 DN	1.24 in ²	1.51 in	29.1-363 psi	UD
48.3 DN	1.55 in ²	1.74 in	29.1-232 psi	UD
2 NPS	2.02 in ²	1.87 in	21.8-232 psi	UD
51 DN	2.02 in ²	1.91 in	21.8-232 psi	UD
50 DN	2.17 in ²	1.97 in	21.8-232 psi	UD
60.3 DN	2.79 in ²	2.22 in	21.8-232 psi	UD
2.5 NPS	3.26 in ²	2.37 in	14.5-232 psi	UD
63.5 DN	3.26 in ²	2.37 in	14.5-232 psi	UD
65 DN	3.88 in ²	2.6 in	14.5-232 psi	UD
70 DN	3.88 in ²	2.63 in	14.5-232 psi	UD
76.1 DN	4.96 in ²	2.84 in	14.5-232 psi	UD
3 NPS	4.96 in ²	2.87 in	14.5-232 psi	UD
76.1 DN	4.96 in ²	2.87 in	14.5-232 psi	UD
80 DN	6.2 in ²	3.19 in	14.5-145 psi	UD
88.9 DN	6.51 in ²	3.32 in	14.5-145 psi	UD
88.9 DN	6.51 in ²	3.34 in	14.5-145 psi	UD
4 NPS	9.3 in ²	3.83 in	8.7-145 psi	UD
101.6 DN	9.3 in ²	3.84 in	8.7-145 psi	UD
100 DN	9.61 in ²	3.94 in	8.7-145 psi	UD
114.3 DN	11.9 in ²	4.32 in	7.3-145 psi	UD
114.3 DN	11.9 in ²	4.34 in	7.3-145 psi	UD

Robert E. Mason & Associates Inc. (MCS)

Nameplate Abbreviation: Robert E. Mason & Associates

Charlotte, NC 28208United States

This Company Manufactures or Assembles:

Design Name	e: 243/249/44 49/8043/80	43/449/546/ 049	/843/849/943/50	46/50 NBCert	# 0129	2				
Manufacturer/A	ssembler		Designat	tors		Expiration Date	e			
Assembler			UV			12/12/2024				
Design Type										
[Pilot Operated F Capacity Tests: S Method of Establ Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Em	[Pilot Operated Pressure Relief Valve] 243/249/443/449/546/843/849/943/5046/5049/8043/8049 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on August 8, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation: Solutions Einal Control US LB (AGC)									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-15000 psi	Air	UV			

1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-720 psi	Steam	UV				
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	15-10600 psi	Air	UV				
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	25-720 psi	Steam	UV				
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-15000 psi	Air	UV				
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-720 psi	Steam	UV				
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-10600 psi	Air	UV				
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-720 psi	Steam	UV				
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-10600 psi	Air	UV				
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-720 psi	Steam	UV				
6 NPS	8, 10 NPS	18.597 in²	[R] 4.866 in	2.435 in	15-10600 psi	Air	UV				
6 NPS	8, 10 NPS	18.597 in²	[R] 4.866 in	2.435 in	15-720 psi	Steam	UV				
8 NPS	10 NPS	30.582 in²	[T] 6.24 in	3.12 in	15-10600 psi	Air	UV				
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-720 psi	Steam	UV				
Design Name	e: 253/259/43 53/8059	53/459/853	/859/953/959/50	^{59/80} NBCert	# 01304	xpiration Date					
Assombler					1	2/13/2024					
	_		01	_		2/15/2024					
[Pilot Operated Pressure Relief Valve] 253/259/453/459/853/859/953/959/5059/8053/8059 Capacity Tests: Sec. UV at unknown lab on July 31, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.627 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Restricted Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}											
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er	blishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (sfinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S	Gas Initial Audible I and Fixed for .ift olutions Final (Discharge Mod. Pilot Control US LP {AGC}								
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size	Gas Initial Audible I e and Fixed for ift olutions Final (Flow Area	Discharge Mod. Pilot Control US LP {AGC} Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er Inlet Size 1-1.5 NPS	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS	Gas Initial Audible I e and Fixed for ift olutions Final (Flow Area 0.205 in ²	Discharge Mod. Pilot Control US LP {AGC} Orifice [designator] dia. [D] 0.674 in	Lift 0.079 in	Set Pressure Range 15-15000 psi	Media Air	Designator				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er Inlet Size 1-1.5 NPS 1-1.5 NPS	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS	Gas Initial Audible I e and Fixed for ift olutions Final (Flow Area 0.205 in ² 0.356 in ²	Discharge Mod. Pilot Control US LP {AGC} Orifice [designator] dia. [D] 0.674 in [E] 0.674 in	Lift 0.079 in 0.137 in	Set Pressure Range 15-15000 psi 15-15000 psi	Media Air Air	Designator UV UV				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 1-1.5 NPS 1-5 NPS	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L merson Automation S Outlet Size 2 NPS 2 NPS 2, 3 NPS	Gas Initial Audible I e and Fixed for lift olutions Final (Flow Area 0.205 in ² 0.356 in ² 0.831 in ²	Discharge Mod. Pilot Control US LP {AGC} Orifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in	Lift 0.079 in 0.137 in 0.241 in	Set Pressure Range 15-15000 psi 15-15000 psi 15-10600 psi	Media Air Air Air	Designator UV UV UV				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 1-1.5 NPS 1-5 NPS 2 NPS	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS 2, 3 NPS 3 NPS	Gas Initial Audible I e and Fixed for ift olutions Final (Flow Area 0.205 in ² 0.356 in ² 0.831 in ²	Discharge Mod. Pilot Control US LP {AGC} Orifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.38 in	Lift 0.079 in 0.137 in 0.241 in 0.191 in	Set Pressure Range 15-15000 psi 15-15000 psi 15-10600 psi 15-15000 psi	Media Air Air Air Air Air	Designator UV UV UV UV				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confii Designed by: Er Inlet Size 1-1.5 NPS 1-5 NPS 2 NPS 2 NPS	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS 2, 3 NPS 3 NPS 3 NPS	Gas Initial Audible I e and Fixed for ift olutions Final (Flow Area 0.205 in ² 0.356 in ² 0.831 in ² 0.85 in ² 1.312 in ²	Discharge Mod. Pilot Control US LP {AGC} Orifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.38 in [H] 1.38 in	Lift 0.079 in 0.137 in 0.241 in 0.191 in 0.295 in	Set Pressure Range 15-15000 psi 15-15000 psi 15-10600 psi 15-15000 psi 15-15000 psi 15-15000 psi	Media Air Air Air Air Air Air	Designator UV				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confii Designed by: Er Inlet Size 1-1.5 NPS 1.5 NPS 2 NPS 2 NPS 3 NPS	blishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS 2 NPS 2, 3 NPS 3 NPS 3 NPS 4 NPS	Gas Initial Audible I e and Fixed for iff olutions Final 0 Flow Area 0.205 in ² 0.356 in ² 0.831 in ² 0.85 in ² 1.312 in ² 3.043 in ²	Discharge Mod. Pilot Control US LP {AGC} Corifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.38 in [H] 1.38 in [K] 2.055 in	Lift 0.079 in 0.137 in 0.241 in 0.191 in 0.295 in 0.461 in	Set Pressure 15-15000 psi 15-15000 psi 15-15000 psi 15-10600 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi	Media Air Air Air Air Air Air Air	Designator UV				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 1-1.5 NPS 1-5 NPS 2 NPS 2 NPS 3 NPS 3 NPS	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS 2, 3 NPS 3 NPS 3 NPS 4 NPS 3 NPS	Gas Initial Audible I e and Fixed for ift olutions Final (Flow Area 0.205 in ² 0.356 in ² 0.851 in ² 1.312 in ² 3.043 in ² 2.132 in ²	Discharge Mod. Pilot Control US LP {AGC} Corifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.38 in [H] 1.38 in [H] 2.055 in [J] 2.055 in	Lift 0.079 in 0.137 in 0.241 in 0.191 in 0.295 in 0.461 in 0.323 in	Set Pressure Range 15-15000 psi 15-15000 psi 15-10600 psi 15-15000 psi 15-10600 psi	Media Air Air Air Air Air Air Air Air	Designator UV				
Method of Estab Certified Value: 1 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confii Designed by: Er Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5 NPS 2 NPS 2 NPS 3 NPS 3 NPS 4 NPS	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L merson Automation S Outlet Size 2 NPS 2 NPS 2 NPS 2, 3 NPS 3 NPS 3 NPS 4 NPS 3 NPS 6 NPS	Gas Initial Audible I Initial Audible I and Fixed for and Fixed for ift olutions Final 0 Image: Straight of the straight of t	Discharge Mod. Pilot Control US LP {AGC} Corifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.38 in [H] 1.38 in [H] 1.38 in [J] 2.055 in [J] 2.055 in	Lift 0.079 in 0.137 in 0.241 in 0.295 in 0.295 in 0.461 in 0.323 in 0.477 in	Set Pressure Range 15-15000 psi 15-15000 psi 15-10600 psi 15-15000 psi 15-10600 psi 15-10600 psi 15-10600 psi	Media Air Air Air Air Air Air Air Air Air Air	Designator UV				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confii Designed by: Er Inlet Size 1-1.5 NPS 1-1.5 NPS 2 NPS 2 NPS 2 NPS 3 NPS 4 NPS 4 NPS	blishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS 2 NPS 2, 3 NPS 3 NPS 3 NPS 4 NPS 3 NPS 6 NPS 6 NPS	Gas Initial Audible I e and Fixed for iff olutions Final (Flow Area 0.205 in ² 0.356 in ² 0.851 in ² 0.85 in ² 1.312 in ² 3.043 in ² 2.132 in ² 4.729 in ²	Discharge Mod. Pilot Control US LP {AGC} Corifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.38 in [G] 1.38 in [H] 1.38 in [H] 1.38 in [J] 2.055 in [J] 2.055 in [L] 3.12 in	Lift 0.079 in 0.137 in 0.241 in 0.295 in 0.461 in 0.323 in 0.477 in 0.601 in	Set Pressure 15-15000 psi 15-15000 psi 15-10600 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-10600 psi	Media Air Air Air Air Air Air Air Air Air Air	Designator UV				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confii Designed by: Er Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5 NPS 2 NPS 2 NPS 3 NPS 3 NPS 4 NPS 4 NPS	blishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, (efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 4 NPS 3 NPS 6 NPS 6 NPS 6 NPS	Gas Initial Audible I e and Fixed for olutions Final O Flow Area 0.205 in ² 0.356 in ² 0.831 in ² 0.85 in ² 1.312 in ² 3.043 in ² 2.132 in ² 4.729 in ² 5.959 in ² 7.188 in ²	Discharge Mod. Pilot Control US LP {AGC} Ørifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.38 in [J] 2.055 in [J] 2.055 in [J] 3.12 in [M] 3.12 in	Lift 0.079 in 0.137 in 0.241 in 0.295 in 0.461 in 0.323 in 0.477 in 0.601 in 0.725 in	Set Pressure Range 15-15000 psi 15-10600 psi	Media Air Air Air Air Air Air Air Air Air Air	Designator UV				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chars Flow Area Confii Designed by: Er Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5 NPS 2 NPS 2 NPS 3 NPS 3 NPS 4 NPS 4 NPS 6 NPS	blishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, G efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 4 NPS 3 NPS 6 NPS 6 NPS 6 NPS 8, 10 NPS	Gas Initial Audible I Initial Audible I and Fixed for ift olutions Final 0 Flow Area 0.205 in² 0.356 in² 0.831 in² 0.85 in² 1.312 in² 3.043 in² 2.132 in² 4.729 in² 5.959 in² 7.188 in² 18.294 in²	Discharge Mod. Pilot Control US LP {AGC} Ørifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.38 in [H] 1.38 in [J] 2.055 in [J] 3.12 in [M] 3.12 in [M] 3.12 in [Q] 4.866 in	Lift 0.079 in 0.137 in 0.241 in 0.295 in 0.491 in 0.323 in 0.461 in 0.323 in 0.477 in 0.601 in 0.725 in 1.185 in	Set Pressure Range 15-15000 psi 15-15000 psi 15-15000 psi 15-10600 psi	Media Air Air Air Air Air Air Air Air Air Air	Designator UV				
Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confii Designed by: Er Inlet Size 1-1.5 NPS 1-1.5 NPS 1.5 NPS 2 NPS 2 NPS 3 NPS 3 NPS 4 NPS 4 NPS 4 NPS 6 NPS	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, G efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2, 3 NPS 3 NPS 3 NPS 3 NPS 4 NPS 3 NPS 6 NPS 6 NPS 6 NPS 6 NPS 8, 10 NPS 8, 10 NPS	Gas Initial Audible I Initial Audible I and Fixed for ift olutions Final 0 Flow Area 0.205 in² 0.356 in² 0.831 in² 0.85 in² 1.312 in² 3.043 in² 2.132 in² 4.729 in² 5.959 in² 7.188 in² 18.294 in² 63/469/566 0.469/566	Discharge Mod. Pilot Control US LP {AGC} 7 (designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.078 in [G] 1.38 in [H] 1.38 in [H] 1.38 in [J] 2.055 in [J] 2.055 in [J] 2.055 in [J] 3.12 in [M] 3.12 in [M] 3.12 in [Q] 4.866 in /863/869/963/963	Lift 0.079 in 0.137 in 0.241 in 0.241 in 0.295 in 0.461 in 0.323 in 0.477 in 0.601 in 0.725 in 1.185 in	Set Pressure 15-15000 psi 15-15000 psi 15-15000 psi 15-10600 psi	MediaAirAirAirAirAirAirAirAirAirAirAirAirAirAirAirAirAirAir	Designator UV UV				
Method of Estab Certified Value: 1 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Confii Designed by: Er Inlet Size 1-1.5 NPS 1-1.5 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 4 NPS 4 NPS 4 NPS 6 NPS Design Name Manufacturer/A	olishing Relieving Cap 0.627 Unitless r/Gas; Certified: Air, G efinition(1): Pop; (2): acteristics: Adjustable guration: Restricted L nerson Automation S Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3 NPS 4 NPS 3 NPS 6 NPS 6 NPS 6 NPS 6 NPS 8, 10 NPS 8, 10 NPS 2 Composite 8, 10 NPS	Gas Initial Audible I Initial Audible I and Fixed for ift olutions Final 0 Flow Area 0.205 in² 0.356 in² 0.831 in² 0.85 in² 1.312 in² 3.043 in² 2.132 in² 4.729 in² 5.959 in² 7.188 in² 18.294 in² 63/469/5666 0.100000000000000000000000000000000000	Discharge Mod. Pilot Control US LP {AGC} Orifice [designator] dia. [D] 0.674 in [E] 0.674 in [G] 1.078 in [G] 1.38 in [H] 1.38 in [H] 1.38 in [K] 2.055 in [J] 2.055 in [L] 3.12 in [M] 3.12 in [M] 3.12 in [Q] 4.866 in /863/869/963/963	Lift 0.079 in 0.137 in 0.241 in 0.295 in 0.461 in 0.323 in 0.461 in 0.323 in 0.477 in 0.601 in 1.185 in 0.725 in 1.185 in 0.7506 NBCert S	Set Pressure 15-15000 psi 15-15000 psi 15-15000 psi 15-10600 psi	Media Air Air <td< td=""><td>Designator UV UV</td></td<>	Designator UV				

[Pilot Operated Pressure Relief Valve] 263/269/463/469/566/863/869/963/969/5066/5069 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on July 30, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.860 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-10600 psi	Air	UV
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-720 psi	Steam	UV
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-10600 psi	Air	UV
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-720 psi	Steam	UV
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-10600 psi	Air	UV
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-720 psi	Steam	UV
4 NPS	6 NPS	10.758 in²	3.701 in	2.035 in	15-10600 psi	Air	UV
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-2220 psi	Steam	UV
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-10600 psi	Air	UV
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-720 psi	Steam	UV
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-10600 psi	Air	UV
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-720 psi	Steam	UV
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-10600 psi	Air	UV
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-720 psi	Steam	UV
8 NPS	10 NPS	37.523 in ²	6.912 in	3.802 in	15-1480 psi	Air	UV
8 NPS	10 NPS	37.523 in ²	6.912 in	3.802 in	15-720 psi	Steam	UV
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-1480 psi	Air	UV
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-720 psi	Steam	UV
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-10600 psi	Air	UV
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-720 psi	Steam	UV
Design Name	e: (Liquids)	46/843/849/	/943/949/5046/50)49 NBCert ;	# 01337		
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	
Assembler			UV		12	/12/2024	
Design Type							
[Pilot Operated F Capacity Tests: \$ Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: En	Pressure Relief Valve Sec. UV, V at Crosby lishing Relieving Cap 0.767 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full herson Automation S] 443/449/546/ Valve, LLC on pacity: Flow Cap Liquid Stream Lift olutions Final C	/843/849/943/949/5046 August 5, 1997 pacity, K Control US LP {AGC}	6/5049(Liquids)			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.21 in	15-7600 psi	Water	UV

1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.51 in	15-7600 psi	Water	UV				
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.82 in	15-7600 psi	Water	UV				
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-7600 psi	Water	UV				
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.62 in	15-7600 psi	Water	UV				
6 NPS	8, 10 NPS	15.904 in ²	[R] 4.5 in	2.435 in	15-7600 psi	Water	UV				
8 NPS	10 NPS	28.274 in ²	[T] 6 in	3.12 in	15-7600 psi	Water	UV				
	. 450/450/0				4 0400						
Design Name	e: 403/409/8;	53/859/953	/959/5059 (Liquid	as) NBCert	4 01320)					
Manufacturer/A	ssembler		Designate	ors	E	expiration Date					
Assembler			UV		1	2/12/2024					
Design Type											
Design Type [Pilot Operated Pressure Relief Valve] 453/459/853/859/953/959/5059 (Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.491 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	UV				
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	V				
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	UV				
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	V				
1.5 NPS	2, 3 NPS	0.911 in ²	[G] 1.078 in	0.264 in	15-7600 psi	Water	UV				
1.5 NPS	2, 3 NPS	0.911 in ²	[G] 1.078 in	0.264 in	15-7600 psi	Water	V				
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	UV				
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	V				
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	UV				
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	V				
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	UV				
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	V				
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	UV				
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	V				
4 NPS	6 NPS	5.711 in²	[L] 3 in	0.576 in	15-7600 psi	Water	UV				
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	V				
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	UV				
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	V				
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	UV				
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	V				
6 NPS	8, 10 NPS	15.885 in²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	UV				
6 NPS	8, 10 NPS	15.885 in ²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	V				

Design Nam	e: 463/469/5 (Liquids)	66/863/869)/963/969/5066/5	⁰⁶⁹ NBCert	# 01348		
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	•
Assembler			UV		12	2/12/2024	
Design Type							
[Pilot Operated Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure Do Blowdown Char Flow Area Conf Designed by: El	Pressure Relief Valve Sec. UV at Crosby V olishing Relieving Ca 0.712 Unitless /ater/Liquid; Certified efinition: First Steady racteristics: Fixed iguration: Nozzle/Full merson Automation S	e] 463/469/566 alve, LLC on A pacity: Flow Ca : Liquid Stream Lift Solutions Final (5/863/869/963/969/506 ugust 27, 1997 apacity, K Control US LP {AGC}	6/5069 (Liquids)			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-7600 psi	Water	UV
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-7600 psi	Water	UV
3 NPS	4 NPS	6.733 in ²	2.928 in	1.315 in	15-7600 psi	Water	UV
4 NPS	6 NPS	10.758 in²	3.701 in	2.035 in	15-7600 psi	Water	UV
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-7600 psi	Water	UV
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-7600 psi	Water	UV
8 NPS	10 NPS	44.179 in²	7.5 in	4.125 in	15-7600 psi	Water	UV
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-7600 psi	Water	UV
Design Nam	e: 81, 81P, 8	3, 86		NBCert	# 01089		
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	;
Assembler			UV		1:	2/12/2024	
Design Type							
[Safety Relief V Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure D Blowdown Char Flow Area Conf Designed by: El	alve] 81, 81P, 83, 86 Sec. UV at Phillips P olishing Relieving Ca 0.816 Unitless ir/Gas, Steam; Certifi efinition: Pop acteristics: Adjustabl iguration: Nozzle/Full merson Automation S	etroleum on Ju pacity: Flow Ca ed: Air, Gas, St e Lift Solutions Final (IIy 8, 1965 apacity, K team Control US LP {AGC}				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-2 NPS	.75 - 2 NPS	0.012 in ²	[-2] 0.125 in	0.05 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2 NPS	0.028 in ²	[-3] 0.188 in	0.06 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-5000 psi	Air	NV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-720 psi	Steam	UV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-5000 psi	Air	NV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-9600 psi	Air	UV

0.196 in²

[-8] 0.5 in

0.16 in

20-5000 psi

Air

NV

0.75-2 NPS

1 - 2.5 NPS

0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-6000 psi	Air	UV				
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-720 psi	Steam	UV				
1.5 NPS	2 NPS	0.307 in ²	[F] 0.625 in	0.28 in	20-4040 psi	Air	UV				
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-6000 psi	Air	UV				
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-720 psi	Steam	UV				
1.5-2 NPS	3 NPS	0.785 in ²	[H] 1 in	0.41 in	20-2580 psi	Air	UV				
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-1620 psi	Air	UV				
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-720 psi	Steam	UV				
Design Name: 81P (Liquids) NBCert # 01102											
Manufacturer/Assembler Designators Expiration Date											
Assembler			UV		12	2/12/2024					
Design Type											
Design Type [Relief Valve] 81P (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on November 26, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.720 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: 93% of pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-5000 psi	Water	NV				
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-6250 psi	Water	UV, V				
0.75-2 NPS	1 - 2 NPS	0.11 in²	[-6] 0.375 in	0.13 in	50-6000 psi	Water	UV, V				
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-5000 psi	Water	NV				
0.75-2 NPS	1 - 2 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	50-6000 psi	Water	UV, V				
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	50-6000 psi	Water	UV, V				
2-2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	50-1620 psi	Water	UV, V				
Design Nam	e: 900 Series	s (Liquid), 7	700, SNC	NBCert	# 15499						
Manufacturer/	Assembler		Designat	ors	E	opiration Date	•				
Assembler			UV		12	2/12/2024					
Design Type											
[Relief Valve] 900 Series (Liquid), 7700, SNC Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 9, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.661 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	NV				

0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.1244 in²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	NV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	UV, V
1-1.5 NPS	1.5 - 2 NPS	0.2951 in ²	0.613 in	0.265 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	NV
1.5-2 NPS	2 NPS	0.3473 in²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV, V
1.5 NPS	2.5 NPS	0.5674 in²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	NV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV, V
Design Nam	e: 900 Series	s, 7700, SN	C	NBCert	# 15411		
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date)
Assembler			UV		0	9/05/2025	
Design Type							
Method of Estat Certified Value:	olishing Relieving Cap 0.878 Unitless	pacity: Flow Ca	ipacity, K				
Media - ; Certifie Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	ed: Air, Gas, Steam afinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S	Lift olutions Final (Control US LP {AGC}				
Media - ; Certifie Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size	Lift olutions Final (Flow Area	Control US LP {AGC} Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Media - ; Certifie Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS	Lift olutions Final (Flow Area 0.0551 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in	Lift 0.074 in	Set Pressure Range 15-10000 psi	Media Air	Designator UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS	Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ²	Control US LP {AGC} Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in	Lift 0.074 in 0.074 in	Set Pressure Range 15-10000 psi 15-2900 psi	Media Air Steam	Designator UV NV, UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS	Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in	Lift 0.074 in 0.074 in 0.106 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi	Media Air Steam Air	Designator UV NV, UV UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS	Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi	Media Air Steam Air Steam	Designator UV NV, UV UV UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS	Lift olutions Final 0 Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#10] 0.328 in [#5] 0.328 in [#6] 0.398 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-2900 psi 15-2900 psi	Media Air Steam Air Steam Steam	Designator UV NV, UV UV NV, UV NV, UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full merson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS	Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#6] 0.398 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-2900 psi 15-10000 psi	Media Air Steam Air Steam Steam Air Steam	Designator UV NV, UV UV NV, UV UV UV UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full merson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS	Lift olutions Final (Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ²	Orifice (designator) dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#5] 0.328 in [#5] 0.398 in [#6] 0.398 in [#7] 0.529 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Steam	Designator UV NV, UV UV UV NV, UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS 1-1.5 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	Lift olutions Final 0 Flow Area 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#6] 0.398 in [#7] 0.529 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Steam Steam	Designator UV NV, UV UV NV, UV NV, UV NV, UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1.5 NPS 1.5 NPS 2 NPS	Lift olutions Final 0 Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ² 0.2198 in ² 0.3473 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#7] 0.529 in [#7] 0.529 in [#8] 0.665 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in 0.17 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Steam Air Steam	Designator UV NV, UV UV NV, UV NV, UV NV, UV UV NV, UV UV NV, UV UV NV, UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full merson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1.5 NPS 2 NPS 2 NPS 2 NPS	Lift olutions Final 0 Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ² 0.2198 in ² 0.3473 in ²	Orifice (designator) dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#7] 0.529 in [#7] 0.529 in [#8] 0.665 in [#8] 0.665 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in 0.215 in	Set Pressure Range 15-1000 psi 15-2900 psi 15-5000 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Steam Air Steam Steam	Designator UV NV, UV NV, UV NV, UV UV NV, UV UV UV UV UV UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full merson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1.5 NPS 2 NPS 2 NPS 2.5 NPS	Lift olutions Final 0 Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ² 0.2198 in ² 0.3473 in ² 0.3473 in ²	Orifice glassignator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#7] 0.529 in [#7] 0.529 in [#8] 0.665 in [#8] 0.665 in [#9] 0.85 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in 0.215 in 0.215 in 0.274 in	Set Pressure 15-1000 psi 15-2900 psi 15-5000 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Steam Air Steam Air Steam	Designator UV NV, UV UV NV, UV NV, UV NV, UV NV, UV UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5 NPS 1.5 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full merson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1.5 NPS 2 NPS 2 NPS 2.5 NPS 2.5 NPS	Lift olutions Final 0 Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ² 0.2198 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#5] 0.328 in [#6] 0.398 in [#7] 0.529 in [#7] 0.529 in [#8] 0.665 in [#8] 0.855 in [#9] 0.85 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in 0.17 in 0.215 in 0.215 in 0.274 in	Set Pressure Range 15-10000 psi 15-2900 psi 15-5000 psi 15-5000 psi 15-2900 psi	Media Air Steam Air Steam Air Steam Steam Air Steam Air Steam Air Steam	Designator UV NV, UV NV, UV NV, UV NV, UV NV, UV UV NV, UV UV NV, UV UV NV, UV NV, UV NV, UV NV, UV NV, UV NV, UV UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1.5 NPS 1.5-2 NPS 1.5 NPS 1.5 NPS 1.5 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1.5 NPS 1.5 NPS 2 NPS 2 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS	Lift olutions Final C Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ² 0.2198 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#6] 0.398 in [#6] 0.398 in [#7] 0.529 in [#8] 0.665 in [#8] 0.665 in [#9] 0.85 in	Lift 0.074 in 0.074 in 0.106 in 0.106 in 0.128 in 0.128 in 0.128 in 0.17 in 0.215 in 0.215 in 0.274 in 0.274 in	Set Pressure 15-10000 psi 15-2900 psi 15-10000 psi 15-2900 psi 15-5000 psi 15-5000 psi 15-5000 psi 15-5000 psi 15-5000 psi	MediaAirSteamAirSteamSteamSteamAirSteamAirSteamAirAirAirAirAirAirAirAirAirAirAirAir	Designator UV NV, UV UV UV UV UV UV UV NV, UV UV
Media - ; Certific Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 1.5-1 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	ed: Air, Gas, Steam efinition: Pop acteristics: Fixed guration: Nozzle/Full nerson Automation S Outlet Size .5 - 1 NPS .5 - 1 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1 - 1.5 NPS 1.5 NPS 2 NPS 2 NPS 2 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3.5 NPS	Lift olutions Final O Flow Area 0.0551 in ² 0.0551 in ² 0.0845 in ² 0.0845 in ² 0.0845 in ² 0.1244 in ² 0.1244 in ² 0.2198 in ² 0.2198 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ²	Orifice [designator] dia. [#10] 0.265 in [#10] 0.265 in [#10] 0.265 in [#5] 0.328 in [#6] 0.398 in [#6] 0.398 in [#6] 0.398 in [#7] 0.529 in [#8] 0.665 in [#9] 0.85 in [#9] 0.85 in	Lift 0.074 in 0.074 in 0.074 in 0.106 in 0.108 in 0.128 in 0.128 in 0.128 in 0.128 in 0.125 in 0.215 in 0.215 in 0.274 in 0.274 in 0.274 in	Set Pressure 15-10000 psi 15-2900 psi 15-5000 psi	Media Air Steam Air Steam Air Steam Steam Air Steam Air	Designator UV NV, UV NV, UV UV NV, UV UV NV, UV UV NV, UV NV, UV UV

[Safety Relief Valve] JLT/JLT-JDS (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 5, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.656 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	NV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	NV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	NV
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	NV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	UV, V
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	NV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	UV, V
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	NV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	UV, V
3 NPS	4-6 NPS	2.109 in ²	1.639 in	0.632 in	15-3705 psi	Water	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	NV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	UV, V
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	NV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	UV, V
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	NV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	NV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	1.232 in	15-1500 psi	Water	UV, V
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Water	UV, V
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	NV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	UV, V
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	NV
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	NV

Design Name	e: JOS-E/JBS E, 8400,	S-E/JOS-H· AC/AB	-E/JBS-H-E/JOS-	·JDS- NBCert ;	# 15208		
Manufacturer/A	ssembler		Designato	ors	E	cpiration Date	
Assembler			UV		03	8/21/2025	
Design Type							
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	alve] JOS-E/JBS-E/J Sec. NV, UV at Crost vlishing Relieving Cap 0.865 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full nerson Automation S	OS-H-E/JBS-H by Valve, LLC c bacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift olutions Final C	I-E/JOS-JDS-E, 8400 on April 1, 1975 pacity, K eam Control US LP {AGC}	, AC/AB			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.121 in	15-15000 psi	Air	NV, UV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.121 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.151 in	15-2000 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.151 in	15-8490 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-15000 psi	Air	NV, UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.165 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-15000 psi	Air	NV, UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.207 in	15-2000 psi	Steam	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.265 in	15-15000 psi	Air	NV, UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.265 in	15-2000 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.331 in	15-15000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.331 in	15-2000 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-10000 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.424 in	15-2000 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-10000 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.507 in	15-2000 psi	Steam	NV, UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-1000 psi	Steam	NV, UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.601 in	15-3000 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-2000 psi	Steam	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.631 in	15-5000 psi	Air	NV, UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-2000 psi	Steam	NV, UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.709 in	15-5000 psi	Air	NV, UV
4 NPS	6 NPS	4.9 in²	[N] 2.498 in	0.779 in	15-1480 psi	Steam	NV, UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.779 in	15-3000 psi	Air	NV, UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Air	NV, UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.85 in	15-2250 psi	Steam	NV, UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.945 in	15-1480 psi	Steam	NV, UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.945 in	15-3000 psi	Air	NV, UV

6 NPS

8 NPS

11.045 in²

3.75 in

1.243 in

15-1000 psi

NV, UV

Steam

6 NPS	8 NPS	11.045 in ²	3.75 in	1.243 in	15-3750 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	12.174 in ²	3.937 in	1.243 in	15-2250 psi	Steam	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Air	NV, UV
6 NPS	10 NPS	12.236 in ²	3.947 in	1.496 in	15-2250 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-1480 psi	Steam	NV, UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.243 in	15-3000 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Air	NV, UV
6 NPS	8 NPS	15.288 in ²	4.412 in	1.414 in	15-2250 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.496 in	15-1480 psi	Steam	NV, UV
8 NPS	10 NPS	18.254 in²	4.821 in	1.907 in	15-2250 psi	Air	NV, UV
8 NPS	10 NPS	18.254 in ²	4.821 in	1.907 in	15-2250 psi	Steam	NV, UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	1.907 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	1.907 in	15-740 psi	Steam	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Air	NV, UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	1.974 in	15-740 psi	Steam	NV, UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Air	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	2.435 in	15-325 psi	Steam	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Air	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	3.111 in	15-325 psi	Steam	UV

SETPOINT Integrated Solutions, Inc. (SET)

Baton Rouge, LA 70809United States

This Company Manufactures or Assembles:

Design Name	e: 1541, 1543	3, 1541-3, ⁻	1543-3	NBC	ert # 180	32				
Manufacturer/A	ssembler		Designa	itors		Expiration Da	ite			
Assembler			UV, V			09/04/2027				
Design Type										
Design Type [Safety Valve] 1541, 1543, 1541-3, 1543-3 Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LL C. (DR.I)										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V			
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV			

0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV
		1 297 in ²	[13] 1 335 in	0 32 in	15-300 nsi	Steam	NV. UV. V
2-2.5 NPS	2.5 NPS	1.207 111	[66] 1.666 11	0.02 11	10-000 p3i	otoum	
2-2.5 NPS 2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV
2-2.5 NPS 2-2.5 NPS Design Name	2.5 NPS 2.5 NPS e: 1700 & 27	1.287 in ²	[J3] 1.335 in	0.32 in NBCert #	15-350 psi 4 18100	Air	NV, UV
2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A	2.5 NPS 2.5 NPS e: 1700 & 27 ssembler	1.287 in ²	[J3] 1.335 in Designate	0.32 in NBCert #	15-350 psi 4 18100 Ex	Air piration Date	NV, UV
2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler	2.5 NPS 2.5 NPS e: 1700 & 27 ssembler	1.287 in ²	[J3] 1.335 in Designato	0.32 in NBCert #	15-350 psi 4 18100 Ex 09,	Air piration Date	NV, UV
2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler Design Type	2.5 NPS 2.5 NPS e: 1700 & 27 ssembler	1.287 in ²	[J3] 1.335 in Designato UV, V	0.32 in NBCert #	15-350 psi 4 18100 Ex 09	Air piration Date	NV, UV
2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: (Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	2.5 NPS 2.5 NP	r, Inc. on Augus acity: Flow Ca	[J3] 1.335 in Designato UV, V st 1, 1957 pacity, K	0.32 in NBCert /	15-350 psi 4 18100 Ex 09.	Air piration Date /04/2027	NV, UV
2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] 1 Capacity Tests: 5 Method of Estab Certified Value; 0 Media - Test: 5t Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	2.5 NPS 2.5 NP	1.287 in ² 1.287 in ² 00 r, Inc. on Augus pacity: Flow Ca n Lift Flow Area	[J3] 1.335 in Designato UV, V st 1, 1957 pacity, K	0.32 in NBCert #	15-350 psi 15-350 psi 15-350 psi Ex 09. 09. Set Pressure Range	Air piration Date /04/2027 Media	NV, UV
2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] 1 Capacity Tests: 5 Method of Estab Certified Value: 0 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS	2.5 NPS 2.5 NPS	1.287 in ² 1.287 in ² 00 r, Inc. on Augus bacity: Flow Ca n Lift Flow Area 0.442 in ²	[J3] 1.335 in Designato UV, V st 1, 1957 pacity, K Orifice [designator] dia. [#9] 0.75 in	0.32 in NBCert # ors Lift 0.188 in	15-350 psi 15-350 psi 15-3000 psi Ex 09 09 15-3000 psi	Air piration Date /04/2027 Media Steam	NV, UV
2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: O Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS 1-1.5 NPS	2.5 NPS 2.5	1.287 in ² 1.287 in ² 00 r, Inc. on Augus bacity: Flow Ca n b Lift Flow Area 0.442 in ² 0.442 in ²	[J3] 1.335 in Designato UV, V st 1, 1957 pacity, K Orifice [designator] dia. [#9] 0.75 in [#9] 0.75 in	0.32 in NBCert # ors Lift 0.188 in 0.188 in	15-350 psi 15-350 psi 4 18100 Ex 09. 09. 15-3000 psi 15-3000 psi 50-3000 psi	Air piration Date /04/2027 Media Steam Steam	NV, UV NV, UV Designator UV V
2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: 5t Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 1-1.5 NPS 1-1.5 NPS 1.25-2.5 NPS	2.5 NPS 2.5	1.287 in ² 1.287 in ² 00 r, Inc. on Augus bacity: Flow Ca n c Lift Flow Area 0.442 in ² 0.442 in ² 0.994 in ²	[J3] 1.335 in [J3] 1.335 in Designato UV, V st 1, 1957 pacity, K Orifice [designator] dia. [#9] 0.75 in [#9] 0.75 in [#1] 1.125 in	0.32 in NBCert # ors Lift 0.188 in 0.188 in 0.281 in	15-350 psi 15-350 psi 4 18100 Ex 09. 09. 09. 09. 09. 09. 09. 09.	Air piration Date /04/2027 /04/2020 /04/2027 /04/2000 /04/2000 /04/20000000	NV, UV NV, UV Designator UV V UV
2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: 0 Method Setab Certified Value: 0 Method Setab Setab Certified Value: 0 Method Setab Setab Certified Value: 0 Method Setab Set	2.5 NPS 2.5	1.287 in ² 1.287 in ² 00 r, Inc. on Augus bacity: Flow Ca n e Lift Flow Area 0.442 in ² 0.442 in ² 0.994 in ²	[J3] 1.335 in [J3] 1.335 in Designator UV, V st 1, 1957 pacity, K Crifice [designator] dia. [#9] 0.75 in [#9] 0.75 in [#1] 1.125 in [#1] 1.125 in	0.32 in 0.32 in NBCert # ors Lift 0.188 in 0.281 in 0.281 in	15-350 psi 15-350 psi 15-350 psi Ex 09 09 09 09 09 09 09 09 09 09	Air piration Date /04/2027 /04/2027 Media Steam Steam Steam Steam Steam	NV, UV NV, UV Designator UV V UV V UV V
2-2.5 NPS 2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1.25-2.5 NPS 1.25-2.5 NPS 1.25-2.5 NPS	2.5 NPS 2.5	1.287 in 1.287 in ² 00 r, Inc. on Augus bacity: Flow Ca n b Lift Flow Area 0.442 in ² 0.994 in ² 0.994 in ² 1.431 in ²	[J3] 1.335 in [J3] 1.335 in Designator UV, V st 1, 1957 pacity, K Crifice [designator] dia. [#9] 0.75 in [#9] 0.75 in [#1] 1.125 in [#1] 1.125 in [#1] 1.125 in	0.32 in 0.32 in NBCert # ors Lift 0.188 in 0.188 in 0.281 in 0.281 in 0.338 in	15-350 psi 15-350 psi 15-350 psi Ex 09 18 09 18 09 18 09 18 09 18 09 18 09 18 09 18 09 18 09 18 09 18 09 18 09 18 09 18 09 18 18 18 18 18 18 18 18 18 18	Air piration Date /04/2027 /04/20	NV, UV NV, UV Designator UV V UV V
2-2.5 NPS 2-2.5 NPS 2-2.5 NPS Design Name Manufacturer/A Assembler Design Type [Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: C Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS 1.25-2.5 NPS 1.25-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS	2.5 NPS 2.5	1.287 in ² 1.287 in ² 00 r, Inc. on Augus bacity: Flow Ca n b Lift Flow Area 0.442 in ² 0.994 in ² 0.994 in ² 1.431 in ²	[J3] 1.335 in [J3] 1.335 in Designato UV, V St 1, 1957 pacity, K St 1, 1957 pacity,	0.32 in NBCert # ors Lift 0.188 in 0.188 in 0.281 in 0.281 in 0.281 in 0.338 in 0.338 in	15-350 psi 15-350 psi 15-350 psi 15-300 psi 15-3000 psi 15-3100 p	Air piration Date /04/2027 /04/2027 Media Steam Steam Steam Steam Steam Steam Steam	NV, UV NV, UV NU NV, UV NU

2-3 NPS	6 NPS	2.545 in ²	[#3] 1.8 in	0.45 in	50-5800 psi	Steam	UV, V
2.5-2.5 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-2575 psi	Steam	UV
2.5-2.5 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	50-2575 psi	Steam	V
2.5-3 NPS	6, 8 NPS	3.341 in ²	[#5] 2.062 in	0.516 in	15-3100 psi	Steam	UV
2.5-3 NPS	6, 8 NPS	3.341 in ²	[#5] 2.062 in	0.516 in	50-5800 psi	Steam	V
3-3 NPS	6, 8 NPS	3.976 in ²	[#4] 2.25 in	0.563 in	15-3100 psi	Steam	UV
3-3 NPS	6, 8 NPS	3.976 in ²	[#4] 2.25 in	0.563 in	50-5800 psi	Steam	V
4 NPS	6,8 NPS	7.07 in ²	[#6] 3 in	0.75 in	15-3100 psi	Steam	UV
4 NPS	6,8 NPS	7.07 in ²	[#6] 3 in	0.75 in	50-3100 psi	Steam	V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-2000 psi	Steam	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	50-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.948 in	0.987 in	15-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.948 in	0.987 in	15-2000 psi	Steam	UV
6 NPS	8, 10 NPS	14.18 in ²	[#8] 4.25 in	1.063 in	15-1800 psi	Steam	UV
6 NPS	8, 10 NPS	14.18 in ²	[#8] 4.25 in	1.063 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	1.129 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	16 in²	[R] 4.515 in	1.129 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	19.29 in ²	[RR] 4.956 in	1.24 in	50-2200 psi	Steam	UV, V
8-10 NPS	10,12 NPS	28.3 in ²	[T] 6 in	1.5 in	50-1500 psi	Steam	UV, V

Design Name:

18100)

NBCert #

18111

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	06/18/2027

Design Type

[Safety Valve] 1700 & 2700 (Restricted Lift version of Cert. # 18100) Capacity Tests: Sec. UV, V at unknown lab on October 13, 1981 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless; Certification Provisions: Restricted Lift (Prev. CC 1923 &/or 1945) Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Restricted Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	3 NPS	0.442 in ²	[9] 0.75 in	0.08 in	15-3000 psi	Steam	UV
1-1.5 NPS	3 NPS	0.442 in ²	[9] 0.75 in	0.08 in	50-3000 psi	Steam	V
1.25-2.5 NPS	3, 4 NPS	0.994 in²	[1] 1.125 in	0.084 in	15-3100 psi	Steam	UV
1.25-2.5 NPS	3, 4 NPS	0.994 in²	[1] 1.125 in	0.084 in	50-5800 psi	Steam	V
1.5-2.5 NPS	3-6 NPS	1.431 in²	[2] 1.35 in	0.101 in	15-3100 psi	Steam	UV
1.5-2.5 NPS	3-6 NPS	1.431 in²	[2] 1.35 in	0.101 in	50-5800 psi	Steam	V
2-3 NPS	6 NPS	2.545 in ²	[3] 1.8 in	0.135 in	15-3100 psi	Steam	UV
2-3 NPS	6 NPS	2.545 in ²	[3] 1.8 in	0.135 in	50-5800 psi	Steam	V
2.5-3 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.143 in	15-2575 psi	Steam	UV
2.5-3 NPS	6 NPS	2.853 in ²	[L] 1.906 in	0.143 in	50-2575 psi	Steam	V

2.5-3 NPS	6, 8 NPS	3.341 in ²	[5] 2.062 in	0.155 in	15-3100 psi	Steam	UV
2.5-3 NPS	6, 8 NPS	3.341 in ²	[5] 2.062 in	0.155 in	50-5800 psi	Steam	V
3-4 NPS	6, 8 NPS	3.976 in ²	[4] 2.25 in	0.169 in	15-3100 psi	Steam	UV
3-4 NPS	6, 8 NPS	3.976 in ²	[4] 2.25 in	0.169 in	50-5800 psi	Steam	V
4 NPS	6, 8 NPS	7.07 in ²	[6] 3 in	0.225 in	15-3100 psi	Steam	UV
4 NPS	6, 8 NPS	7.07 in ²	[6] 3 in	0.225 in	50-3100 psi	Steam	V
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.281 in	15-2000 psi	Steam	UV
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.281 in	50-2000 psi	Steam	V
6 NPS	8 NPS	12.25 in ²	[Q] 3.946 in	0.296 in	15-2000 psi	Steam	UV, V
6-8 NPS	8, 10 NPS	14.18 in ²	[8] 4.25 in	0.319 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	14.18 in ²	[8] 4.25 in	0.319 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	16 in ²	[R] 4.515 in	0.339 in	15-1800 psi	Steam	UV
6-8 NPS	8, 10 NPS	16 in ²	[R] 4.515 in	0.339 in	50-2000 psi	Steam	V
6-8 NPS	8, 10 NPS	19.29 in²	[RR] 4.956 in	0.372 in	50-2200 psi	Steam	V
8-10 NPS	10, 12 NPS	28.3 in ²	[T] 6 in	0.45 in	50-1500 psi	Steam	UV, V
Design Name	e: 1811, 151 ⁷	1		NBCert #	# 18122		
Manufacturer/A	ssembler	E	xpiration Date				
Assembler			UV, V		0	6/18/2027	
Design Type	911 1511						
Design Type [Safety Valve] 1 Capacity Tests: 4 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ}	r, Inc. on March vacity: Flow Ca ed: Air, Gas, St e Lift	n 11, 1975 pacity, K eam				
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size	r, Inc. on March pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area	n 11, 1975 pacity, K eam Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS	r, Inc. on March vacity: Flow Ca ed: Air, Gas, Str Lift Flow Area 0.307 in ²	n 11, 1975 pacity, K eam Orifice [designator] dia. [F] 0.625 in	Lift 0.156 in	Set Pressure Range 15-1500 psi	Media Steam	Designator UV, V
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS	r, Inc. on March bacity: Flow Ca ed: Air, Gas, Str Lift Flow Area 0.307 in ² 0.307 in ²	n 11, 1975 pacity, K eam Orifice [designator] dia. [F] 0.625 in [F] 0.625 in	Lift 0.156 in 0.156 in	Set Pressure Range 15-1500 psi 15-1500 psi	Media Steam Air	Designator UV, V UV
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS	r, Inc. on March pacity: Flow Ca ed: Air, Gas, Str c Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ²	Orifice [designator] dia. [F] 0.625 in [G] 0.8 in	Lift 0.156 in 0.156 in 0.2 in	Set Pressure Range 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam	Designator UV, V UV UV
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	r, Inc. on March pacity: Flow Ca ed: Air, Gas, Str Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ²	n 11, 1975 pacity, K eam Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [F] 0.625 in [G] 0.8 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in	Set Pressure Range Image: Control of the sector of the secto	Media Steam Air Steam	Designator UV, V UV UV
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS	r, Inc. on March pacity: Flow Ca ed: Air, Gas, Str Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ²	Drifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in	Set Pressure Range Content 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam Air Steam	Designator UV, V UV UV, V
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS	r, Inc. on March pacity: Flow Ca ed: Air, Gas, Str Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ²	Drifice [designator] dia. [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in	Set Pressure 15-1500 psi	Media Steam Air Steam Air Steam Air Steam	Designator UV, V UV UV UV UV UV UV
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS	r, Inc. on March pacity: Flow Ca ed: Air, Gas, Str c Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ²	n 11, 1975 pacity, K eam Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [J] 1.281 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Air Steam	Designator UV, V
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS	r, Inc. on March bacity: Flow Ca ed: Air, Gas, Stu Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ²	n 11, 1975 pacity, K eam Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [J] 1.281 in [J] 1.281 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estable Certified Value: 0 Media - Test: Ai Set Pressure Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS	r, Inc. on March acity: Flow Ca ed: Air, Gas, Str Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ²	n 11, 1975 pacity, K eam Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [J] 1.281 in [J] 1.281 in [K] 1.531 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in	Set Pressure Range 15-1500 psi	Media Steam Steam Air Steam Steam Air Steam Air Steam	Designator UV, V
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS 2-3 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS	r, Inc. on March acity: Flow Ca ed: Air, Gas, Ste Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 1.287 in ² 1.84 in ²	11, 1975 pacity, K eam Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [J] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.333 in	Set Pressure 15-1500 psi	Media Steam Steam Air Steam Steam Air Steam Air Steam Air Steam	Designator UV, V UV UV UV UV UV UV UV UV
Design Type [Safety Valve] 1 Capacity Tests: 3 Method of Estable Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2.3 NPS 2.3 NPS 2.5-4 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS	r, Inc. on March acity: Flow Ca ed: Air, Gas, Str c Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ² 1.84 in ² 2.853 in ²	11, 1975 pacity, K eam Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [J] 1.281 in [J] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [L] 1.906 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.383 in	Set Pressure 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V
Design Type[Safety Valve] 1Capacity Tests: 3Method of EstableCertified Value: 0Media - Test: AiSet Pressure DeBlowdown CharaFlow Area ConfigDesigned by: DrInlet Size1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.5-2.5 NPS1.5-2.5 NPS1.5-2.5 NPS2.3 NPS2.5-4 NPS2.5-4 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS	r, Inc. on March acity: Flow Ca ad: Air, Gas, Stu Lift Flow Area 0.307 in ² 0.307 in ² 0.307 in ² 0.503 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ² 1.84 in ² 2.853 in ²	11, 1975 pacity, K eam Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [J] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [L] 1.906 in	Lift 0.156 in 0.156 in 0.25 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.383 in 0.477 in	Set Pressure 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V UV, V
Design Type[Safety Valve] 1Capacity Tests: 3Method of EstableCertified Value: 0Media - Test: AiSet Pressure Designed Value: 0Blowdown CharaFlow Area ConfigDesigned by: DrInlet Size1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.25-1.5 NPS1.5-2.5 NPS1.5-2.5 NPS1.5-2.5 NPS2-3 NPS2.5-4 NPS2.5-4 NPS3 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie duration: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 4, 6 NPS	r, Inc. on March acity: Flow Ca ad: Air, Gas, Str bift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ² 2.853 in ² 2.853 in ² 3.6 in ²	n 11, 1975 pacity, K eam Orifice [6] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [J] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [K] 1.531 in [K] 1.906 in [L] 1.906 in [M] 2.14 in	Lift 0.156 in 0.156 in 0.25 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.383 in 0.477 in 0.477 in 0.477 in	Set Pressure 15-1500 psi	Media Steam Steam Air Steam Steam Air Steam Steam Air Steam Air Steam Air Steam	Designator UV, V

4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Steam	UV, V				
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV				
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V				
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV				
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V				
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV				
Design Nam	e: 1900, 1900 (Liquids)	0-30 1900-	35 LA & DALA	NBCert	# 18784	4					
Manufacturer/A	Assembler		Designato	ors	E	Expiration Date)				
Assembler			UV, V		(06/19/2027					
Design Type	Design Type										
[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V				
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V				
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V				
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V				
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V				
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V				
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V				
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V				
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V				
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V				
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V				
6-6 NPS	8 NPS	12.851 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V				
6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V				
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V				
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V				
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V				
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V				
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V				
Design Nam	e: 1900, 1900	0-30, 1900-	-35	NBCert	# 1820 ⁻	1					
Manufacturer/A	Assembler		Designato	ors	E	Expiration Date					
Assembler			UV		(06/19/2027					

[Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV

12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV				
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV				
Design Name	e: 19000 Ser	ies		NBCert #	# 18706						
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date					
Assembler			UV		06	/21/2027					
Design Type											
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV				
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV				

2.162 in

15-300 psi

10 NPS

14 NPS

50.26 in²

[V] 8 in

NV, UV

Steam

Design Nam	e: 19000 Sei	ries, Liquid		NBCert	# 18717		
Manufacturer/	Assembler		Designat	ors	E	xpiration Date)
Assembler			UV		06	6/18/2027	
Design Type							
[Relief Valve] 1 Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure D Blowdown Char Flow Area Conf Designed by: D	9000 Series, Liquid Sec. UV at Dresser, blishing Relieving Ca 0.673 Unitless /ater/Liquid; Certified efinition: First Steady racteristics: Fixed iguration: Nozzle/Full resser, LLC {DRJ}	Inc. on August pacity: Flow Ca : Liquid Stream Lift	30, 1994 apacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV
Design Nam	e: 1900D-2,	1900-30D-2	2	NBCert	# 18144		
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	
Assembler			UV		06	6/19/2027	
Design Type							
[Safety Relief V Capacity Tests: Method of Estal Certified Value: Media - Test: A Set Pressure D Blowdown Char Flow Area Conf Designed by: D	alve] 1900D-2, 1900 Sec. NV, UV at Dres blishing Relieving Ca 5.630 PPH/PSIA; (al ir/Gas, Steam; Certifi efinition: Pop acteristics: Adjustabl iguration: Restricted resser, LLC {DRJ}	-30D-2 ser, Inc. on Aug pacity: Flow Ca ternate mediun ed: Air, Gas, St e (Single Ring) Lift	gust 16, 1977 apacity, Slope n): 2.004 SCFM/PSIA team				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV

0.066 in

15-6250 psi

UV

Air

1-1.5 NPS

2-3 NPS

0.1279 in²

[D] 0.674 in

Design Name: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/A	ssembler			Designato	Drs		Expiration Date	
Assembler				UV, V			06/19/2027	
Design Type								
[Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	00D-2, 1900-30D-2 Sec. NV, UV, V at Dre lishing Relieving Cap 3.256 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	LA & DALA (Lic esser, Inc. on Ju acity: Flow Ca SID Liquid Stream ift	quids) uly 12, 1995 pacity, Flow	5 Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designate	or] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 i	n	0.056 in	15-6250 psi	Water	NV, UV, V
Design Name	e: 1900E-2, 1	900-30E-2			NBCert #	¢ 181	66	
Manufacturer/A	ssembler			Designato	ors		Expiration Date	
Assembler				UV			06/19/2027	
Design Type								
Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al /Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ}	er, Inc. on Aug pacity: Flow Ca ternate mediun ed: Air, Gas, Sto e (Single Ring) ift	ust 16, 1977 pacity, Slope n): 3.570 So eam	7 e CFM/PSIA				
Inlet Size	Outlet Size	Flow Area	Orifice [designate	or] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 ii	n	0.119 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 ii	n	0.119 in	15-6250 psi	Air	NV, UV
Design Name	e: 1900E-2, 1	900-30E-2	LA & DA	ALA (Liqi	uids) NBCert <i>‡</i>	¢ 187	62	
Manufacturer/A	ssembler			Designato	ors		Expiration Date	
Assembler				UV, V			06/19/2027	
Design Type								
[Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 5 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	00E-2, 1900-30E-2 L Sec. NV, UV, V at Dre lishing Relieving Cap 5.798 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	LA & DALA (Liq esser, Inc. on Ju acity: Flow Ca SID Liquid Stream	juids) uly 12, 1995 pacity, Flow	5 Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designate	or] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 ii	n	0.093 in	15-6250 psi	Water	NV, UV, V

Design Name:	2900	(39PV	& 39MV	pilots -	Liqui
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Manufacturer/A	ssembler		Designat	ors		Expiration Date		
Assembler			UV, V			06/17/2027		
Design Type								
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: (Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	Pressure Relief Valve Sec. UV, V at Dresse lishing Relieving Cap 0.670 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ}	e] 2900 (39PV r, Inc. on June pacity: Flow Ca Liquid Stream Lift	& 39MV pilots - Liquic 25, 1999 pacity, K)				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	UV, V	
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	UV, V	
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	UV, V	
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.205 in	15-6250 psi	Water	UV, V	
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.395 in	15-3750 psi	Water	UV, V	
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-6000 psi	Water	UV, V	
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-6000 psi	Water	UV, V	
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-3750 psi	Water	UV, V	
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-2250 psi	Water	UV, V	
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-2250 psi	Water	UV, V	
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-2250 psi	Water	UV, V	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-1500 psi	Water	UV, V	
6 NPS	8 - 10 NPS	18.6 in²	[R] 4.867 in	1.738 in	15-1500 psi	Water	UV, V	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-905 psi	Water	UV, V	
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Water	UV, V	
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.93 in	15-675 psi	Water	UV, V	
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-535 psi	Water	UV, V	
Design Name	e: 2900 (39P	V & 39MV	pilots)	NBCert	# 1886	3		
Manufacturer/A	ssembler		Designat	ors	1	Expiration Date		
Assembler			UV		(02/26/2027		
Design Type								
[Pilot Operated F Capacity Tests: S Method of Estab Certified Value: (Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	Pesign Type [Pilot Operated Pressure Relief Valve] 2900 (39PV & 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on June 25, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser LL C {DR: }							

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-7200 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-4230 psi	Steam	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3750 psi	Air	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2500 psi	Steam	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-6000 psi	Air	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2500 psi	Steam	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2000 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-3750 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-2250 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-2250 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-2250 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	UV
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-1500 psi	Air	UV
6 NPS	8 - 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-905 psi	Steam	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	1.723 in	15-905 psi	Steam	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Steam	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-675 psi	Air	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-300 psi	Steam	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-535 psi	Air	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	UV
Design Name	e: 3900 (39P	V, 39MV pi	lots)	NBCert ;	# 18447		
Manufacturer/A	ssembler		Designato	ors	E	piration Date	
Assembler			UV		09	0/04/2027	

[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on May 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Air	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	NV

4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	UV	
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-750 psi	Steam	UV	
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Air	UV	
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Air	UV	
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	NV	
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	UV	
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-750 psi	Steam	UV	
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Air	UV	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Air	UV	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	NV	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	UV	
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Air	UV	
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	NV	
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	UV	
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Air	UV	
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-750 psi	Steam	UV	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Air	UV	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	NV	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	UV	
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Air	UV	
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-700 psi	Steam	UV	
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Air	UV	
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	NV	
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	UV	
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Air	UV	
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-750 psi	Steam	UV	
Design Name	e: 3900 (39P'	V. 39MV pi	lots. liauid)	NBCert #	# 18458			
	Ň	2						
Manufacturer/A	ssembler		Designato	ors	E	cpiration Date		
Assembler			UV		09	/04/2027		
Design Type								
[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots, liquid) Capacity Tests: Sec. UV at Dresser, Inc. on June 1, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.743 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LL C. {DR,}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	NV	
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	UV	
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	NV	

1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Water	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Water	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	UV
8 NPS	10 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	63.62 in²	[W] 9 in	3 in	15-1500 psi	Water	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Water	UV

SETPOINT Integrated Solutions, Inc. (WLS)

Sulphur, LA 70665United States

This Company Manufactures or Assembles:

Design Name: 154 ⁻	I, 1543, 1541-3, 154	3-3	NBCert #	# 18032	2			
Manufacturer/Assembler		Designator	S	E	Expiration Date	•		
Assembler		UV, V		C	9/10/2024			
Design Type								
[Safety Valve] 1541, 1543, 1541-3, 1543-3 Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser LL C (DR I)								
Inlet Size Outlet Size	e Flow Area [de	ifice əsignator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-0.75 NPS .75 NPS	0.11 in ² [D]	0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V		

Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-300 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV

Design Name: 1811, 1511	NBCert # 181	22
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/02/2027

[Safety Valve] 1811, 1511 Capacity Tests: Sec. UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Steam	UV, V	
1.25-1.5 NPS	1.5 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-1500 psi	Air	UV	
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Steam	UV, V	
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-1500 psi	Air	UV	
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Steam	UV, V	
1.5-2.5 NPS	2.5 NPS	0.785 in ²	[H] 1 in	0.25 in	15-1500 psi	Air	UV	
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Steam	UV, V	
1.5-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.321 in	15-1500 psi	Air	UV	
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Steam	UV, V	
2-3 NPS	3, 4 NPS	1.84 in ²	[K] 1.531 in	0.383 in	15-1500 psi	Air	UV	
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Steam	UV, V	
2.5-4 NPS	4, 6 NPS	2.853 in ²	[L] 1.906 in	0.477 in	15-1500 psi	Air	UV	
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Steam	UV, V	
3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Air	UV	
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Steam	UV, V	
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV	
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V	
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV	
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V	
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV	
Design Name	e: 1900, 1900 (Liquids))-30 1900-3	35 LA & DALA	NBCert ;	# 18784			
Manufacturer/A	ssembler		Designato	ors	E	xpiration Date		
Assembler			UV, V		07	7/19/2024		
Design Type								
[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V	

1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V
6-6 NPS	8 NPS	12.851 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V
6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	35 in ²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V

Design Name:

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/19/2024

Design Type

[Safety Relief Valve] 1900, 1900-30, 1900-35

Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam

Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV

3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in ²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV

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esion name.	19000	Series	

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/19/2024
Design Type		
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift		

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV
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0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV
_							
Design Name Manufacturer/A	e: 19000 Ser ssembler	ies, Liquid	Designato	NBCert ; ors	# 18717 Ex	piration Date	
Design Name Manufacturer/A Assembler	e: 19000 Ser ssembler	ies, Liquid	Designato	NBCert ; ors	# 18717 Ex 07	piration Date	
Design Name Manufacturer/A Assembler Design Type	e: 19000 Ser ssembler	ies, Liquid	Designato UV	NBCert ; ors	# 18717 Ex 07	piration Date /19/2024	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: districts: Fixed guration: Nozzle/Full esser, LLC {DRJ}	ies, Liquid nc. on August 3 bacity: Flow Ca Liquid Stream Lift	Designato UV 80, 1994 bacity, K	NBCert ;	# 18717 Ex 07	piration Date	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: (Media - Test: Wi Set Pressure De Blowdown Chara Flow Area Config Designed by: Dri	e: 19000 Series, Liquid ssembler 20000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size	ies, Liquid nc. on August 3 pacity: Flow Ca Liquid Stream Lift Flow Area	Designato UV 30, 1994 bacity, K Orifice [designator] dia.	NBCert 7	# 18717 Ex 07 Set Pressure Range	piration Date /19/2024 Media	Designator
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 0.5-1 NPS	e: 19000 Series, ssembler 0000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: ifinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Ca Liquid Stream Lift Flow Area 0.019 in ²	Designato UV 30, 1994 pacity, K Orifice [designator] dia. 0.156 in	NBCert a	# 18717 Ex 07 Set Pressure Range 15-15000 psi	piration Date /19/2024 Media Water	Designator
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure Des Blowdown Chara Flow Area Config Designed by: Dri Inlet Size 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: dinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	ies, Liquid nc. on August 3 pacity: Flow Ca Liquid Stream Lift Flow Area 0.019 in ² 0.019 in ²	Designato UV 30, 1994 bacity, K Orifice [designator] dia. 0.156 in 0.156 in	NBCert a	 # 18717 Ex 07 Set Pressure 15-15000 psi 15-15000 psi 	piration Date /19/2024 Media Water Water	Designator UV NV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid ssembler 20000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS 1 NPS	ies, Liquid nc. on August 3 pacity: Flow Cal Liquid Stream Lift Flow Area 0.019 in ² 0.019 in ²	Designato UV 30, 1994 bacity, K Crifice [designator] dia. 0.156 in 0.156 in 0.35 in	NBCert 7	 # 18717 Ex 07 Set Pressure Range 15-15000 psi 15-5000 psi 	piration Date /19/2024 Media Water Water Water	Designator UV NV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS 1 NPS 1 NPS	ies, Liquid nc. on August 3 pacity: Flow Ca Liquid Stream Lift Flow Area 0.019 in ² 0.019 in ² 0.096 in ²	Designato UV 30, 1994 30, 1994 Orifice [designator] dia. 0.156 in 0.156 in 0.35 in 0.35 in	NBCert 7	# 18717 Ex 07 07 07 Set Pressure 0 15-15000 psi 1 15-5000 psi 1 15-5000 psi 1	piration Date /19/2024 /19/20 /19/20 /19/2024 /19/2024 /19/20 /19/20 /10/20 /10/20 /	Designator UV NV NV NV NV NV NV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap 0.673 Unitless ater/Liquid; Certified: difinition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS 1 NPS 1 NPS 1 NPS 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Ca Liquid Stream Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.11 in ²	Designato UV 30, 1994 Socity, K Orifice [designator] dia. 0.156 in 0.35 in 0.35 in 0.375 in	NBCert 7 ors Lift 0.045 in 0.045 in 0.11 in 0.11 in 0.118 in	# 18717 Ex 07 07 07 Set Pressure 1 15-15000 psi 1 15-5000 psi 1	piration Date /19/2024 /19/20 /19/2024 /19/2024 /19/2024 /19/2024 /19/2024 /19/2024 /19/2024 /19/20 /1	Designator UV NV NV NV NV NV NV N N N N N N N N N N N N N
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure Des Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Cap D.673 Unitless ater/Liquid; Certified: distribution: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Car Liquid Stream Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.096 in ² 0.11 in ²	Designato UV 30, 1994 Soacity, K 0.156 in 0.156 in 0.35 in 0.35 in 0.375 in 0.375 in	NBCert a ors Lift 0.045 in 0.045 in 0.11 in 0.11 in 0.118 in	# 187 J Ex 07 07 07 Set Pressure 1 15-15000 psi 1 15-5000 psi 1 15-290 psi 1	piration Date (19/2024 Media Water Water Water Water Water Water Water Water	NV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: O Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Car o.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	ies, Liquid nc. on August 3 pacity: Flow Cal Liquid Stream Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.11 in ² 0.1126 in ²	Designato UV 30, 1994 30, 1994 Crifice [designator] dia. 0.156 in 0.35 in 0.35 in 0.375 in 0.375 in 0.401 in	NBCert a ors Lift 0.045 in 0.045 in 0.11 in 0.118 in 0.118 in 0.118 in 0.126 in	# 18717 Ex 07 07 07 Set Pressure 1 15-15000 psi 1 15-5000 psi 1 15-290 psi 1 15-8000 psi 1	piration Date /19/2024 /Media Water Water Water Water Water Water Water Water Water Water	Designator UV NV UV
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 0.5-1 NPS 0.5-1 NPS	e: 19000 Series, Liquid Sec. UV at Dresser, I lishing Relieving Car 0.673 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	ies, Liquid nc. on August 3 bacity: Flow Call Liquid Stream Lift Flow Area 0.019 in ² 0.096 in ² 0.096 in ² 0.11 in ² 0.126 in ²	Designato UV 30, 1994 Soacity, K Crifice (designator] dia. 0.156 in 0.355 in 0.375 in 0.375 in 0.375 in 0.401 in 0.401 in	NBCert a ors Lift 0.045 in 0.045 in 0.11 in 0.118 in 0.118 in 0.126 in 0.126 in	# 187 J Ex 07 07 07 Set Pressure 1 15-15000 psi 1 15-5000 psi 1 15-8000 psi 1	piration Date /19/2024 /19/20 /19/20 /19/2024 /19/2024 /19/2024 /19/2024 /1	NV

1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV		
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV		
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV		
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV		
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV		
Design Name: 1900D-2, 1900-30D-2 NBCert # 18144									
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	3		
Assembler			UV		0	7/19/2024			
Design Type									
[Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV		
1-1.5 NPS Design Name	2-3 NPS e: 1900D-2, ²	0.1279 in² 1900-30D-2	[D] 0.674 in	0.066 in uids) NBCert ;	15-6250 psi # 18751	Air	UV		
1-1.5 NPS Design Name Manufacturer/A	2-3 NPS e: 1900D-2, ² ssembler	0.1279 in² 1900-30D-2	[D] 0.674 in LA & DALA (Liq Designate	0.066 in uids) NBCert ; prs	15-6250 psi # 18751 E	Air	OV e		
1-1.5 NPS Design Name Manufacturer/A Assembler	2-3 NPS e: 1900D-2, ² ssembler	0.1279 in² 1900-30D-2	[D] 0.674 in LA & DALA (Liq Designate UV, V	0.066 in uids) NBCert ; prs	15-6250 psi # 18751 E	Air Expiration Date	οv		
1-1.5 NPS Design Name Manufacturer/A Assembler Design Type	2-3 NPS e: 1900D-2, ² ssembler	0.1279 in² 1900-30D-2	[D] 0.674 in LA & DALA (Liq Designate UV, V	0.066 in uids) NBCert a ors	15-6250 psi # 18751 E 0	Air Expiration Date	9 9		
1-1.5 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	2-3 NPS 2-3	0.1279 in ² 1900-30D-2 1900-30D-2 LA & DALA (Lic esser, Inc. on Ju pacity: Flow Cap SID Liquid Stream .ift	[D] 0.674 in LA & DALA (Liq Designate UV, V Juids) Juy 12, 1995 bacity, Flow Factor	0.066 in uids) NBCert ; prs	15-6250 psi # 18751 E 0	Air Expiration Date	÷		
1-1.5 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Method of Estab Certified Value: 4 Method Stab Certified Value: 4 Method Stab Certified Value: 5 Method Stab Certified Value: 4 Method Stab Certified Value: 4 Method Stab Certified Value: 5 Method Stab Certified Value: 4 Method Stab Certified Valu	2-3 NPS 2-3	0.1279 in ² 1900-30D-2 LA & DALA (Lic esser, Inc. on Ju pacity: Flow Ca SID Liquid Stream .ift Flow Area	[D] 0.674 in LA & DALA (Liq Designate UV, V Juids) Juy 12, 1995 bacity, Flow Factor Orifice [designator] dia.	0.066 in uids) NBCert ; prs Lift	15-6250 psi # 18751 E 0 0 Set Pressure Range	Air Expiration Date	Designator		
1-1.5 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dri Inlet Size 1-1.5 NPS	2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS	0.1279 in ² 1900-30D-2 1900-30D-2 LA & DALA (Lic esser, Inc. on Ju pacity: Flow Ca SID Liquid Stream .ift Flow Area 0.1279 in ²	[D] 0.674 in LA & DALA (Liq Designate UV, V uuids) uly 12, 1995 pacity, Flow Factor Orifice [designator] dia. [D] 0.674 in	0.066 in uids) NBCert ; ors Lift 0.056 in	15-6250 psi # 18751 E 0 0 Set Pressure Range 15-6250 psi	Air Expiration Date 7/19/2024 Media Water	Designator NV, UV, V		
1-1.5 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: W Set Pressure Des Blowdown Chara Flow Area Config Designed by: Dri Inlet Size 1-1.5 NPS Design Name	2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS	0.1279 in ² 1900-30D-2 LA & DALA (Licesser, Inc. on Jupacity: Flow Cap SID Liquid Stream .ift Flow Area 0.1279 in ² 1900-30E-2	[D] 0.674 in LA & DALA (Liq Designate UV, V ulids) uly 12, 1995 bacity, Flow Factor Orifice [designator] dia. [D] 0.674 in	0.066 in uids) NBCert # ors Lift 0.056 in NBCert #	15-6250 psi # 18751 E 0 0 Set Pressure Range 15-6250 psi # 18166	Air Expiration Date 7/19/2024 Media Water	UV Designator NV, UV, V		
1-1.5 NPS Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Dri Inlet Size 1-1.5 NPS Design Name Manufacturer/A	2-3 NPS 2-3	0.1279 in ² 1900-30D-2 LA & DALA (Licesser, Inc. on Jupacity: Flow Cap SID Liquid Stream .ift Flow Area 0.1279 in ²	[D] 0.674 in LA & DALA (Liq Designate UV, V Juids) Juy 12, 1995 pacity, Flow Factor Orifice [designator] dia. [D] 0.674 in Designate	0.066 in uids) NBCert 7 ors Lift 0.056 in NBCert 7	15-6250 psi # 18751 E 0 0 5 5 5 6 250 psi # 18166	Air Expiration Date 7/19/2024 Media Water Expiration Date	UV Designator NV, UV, V		

Design Type

[Safety Relief Valve] 1900E-2, 1900-30E-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value:10.040 PPH/PSIA; (alternate medium): 3.570 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV

Design Name: 1900E-2, 1900-30E-2 LA & DALA (Liquids) NBCert # 18762

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	07/10/2024

Design Type

[Relief Valve] 1900E-2, 1900-30E-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 5.798 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V
Design Name	e: 1982			NBCert #	¥ 18379		

Manufacturer/Assembler Designators Expiration Date Assembler UV 10/15/2024

Design Type

[Safety Relief Valve] 1982 Capacity Tests: Sec. NV. -Class 2. -Clas

Capacity Tests: Sec. NV, -Class 2, -Class 3, UV at National Board Testing Lab (Picaway) on May 6, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.855 Unitless

Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop

Blowdown Characteristics: Fixed

Flow Area Configuration: Nozzle/Full Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5 NPS	.75 NPS	0.121 in²	0.393 in	0.092 in	15-500 psi	Air	NV, UV
0.5 NPS	.75 NPS	0.121 in ²	0.393 in	0.092 in	15-500 psi	Steam	NV, UV
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Air	NV, UV
0.75 NPS	1 NPS	0.216 in ²	0.524 in	0.123 in	15-500 psi	Steam	NV, UV
1 NPS	1.5 NPS	0.332 in ²	0.65 in	0.15 in	15-500 psi	Air	NV, UV

1 NPS	1.5 NPS	0.332 in ²	0.65 in	0.15 in	15-500 psi	Steam	NV, UV
1.5 NPS	2 NPS	0.857 in ²	1.045 in	0.243 in	15-500 psi	Air	NV, UV
1.5 NPS	2 NPS	0.857 in ²	1.045 in	0.243 in	15-500 psi	Steam	NV, UV
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.31 in	15-500 psi	Steam	NV, UV
2 NPS	2.5 NPS	1.399 in ²	1.335 in	0.31 in	15-500 psi	Air	NV, UV

Design Name: 2900 (39PV & 39MV pilots - Liquic

NBCert #

18874

Manufacturer/Assembler				Designators			Expiration Date		
Assembler				UV, V			05/25/2027		
Design Type									
[Pilot Operated Pressure Relief Valve] 2900 (39PV & 39MV pilots - Liquid) Capacity Tests: Sec. UV, V at Dresser, Inc. on June 25, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designat	tor] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036	3 in	0.095 in	15-6250 psi	Water	UV, V	
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387	' in	0.127 in	15-6250 psi	Water	UV, V	
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 i	in	0.16 in	15-6250 psi	Water	UV, V	
1.5-2 NPS	2.5 - 3 NPS	0.5849 in²	[G] 0.863	in	0.205 in	15-6250 psi	Water	UV, V	
1.5-2 NPS	3 NPS	0.9127 in²	[H] 1.078	in	0.395 in	15-3750 psi	Water	UV, V	
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in		0.506 in	15-6000 psi	Water	UV, V	
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 ir	1	0.605 in	15-6000 psi	Water	UV, V	
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 i	n	0.753 in	15-3750 psi	Water	UV, V	
4 NPS	6 NPS	4.186 in ²	[M] 2.308	6 in	0.846 in	15-2250 psi	Water	UV, V	
4 NPS	6 NPS	5.047 in ²	[N] 2.535	in	0.929 in	15-2250 psi	Water	UV, V	
4 NPS	6 NPS	7.417 in ²	[P] 3.073	in	1.126 in	15-2250 psi	Water	UV, V	
6 NPS	8 NPS	12.85 in ²	[Q] 4.045	in	1.482 in	15-1500 psi	Water	UV, V	
6 NPS	8 - 10 NPS	18.6 in²	[R] 4.867	in	1.738 in	15-1500 psi	Water	UV, V	
8 NPS	10 NPS	30.21 in ²	[T] 6.205 i	in	2.272 in	15-905 psi	Water	UV, V	
8 NPS	10 NPS	35 in²	[U] 6.688	in	1.841 in	15-905 psi	Water	UV, V	
10 NPS	14 NPS	50.26 in ²	[V] 8.002	in	2.93 in	15-675 psi	Water	UV, V	
12 NPS	16 NPS	78.996 in²	[W] 10.02	9 in	3.675 in	15-535 psi	Water	UV, V	
Design Name	e: 2900 (39P	V & 39MV	pilots)		NBCert	# 188	63		
Manufacturer/A	ssembler			Designate	ors		Expiration Date)	

	, and the second s	
Assembler	UV	05/25/2027

[Pilot Operated Pressure Relief Valve] 2900 (39PV & 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on June 25, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam

Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.4036 in	0.11 in	15-7200 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-4230 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-4230 psi	Steam	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	UV
1.5-2 NPS	2.5 - 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3750 psi	Air	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2500 psi	Steam	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-6000 psi	Air	UV
2-3 NPS	3 - 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2500 psi	Steam	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-6000 psi	Air	UV
3 NPS	4 - 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2000 psi	Steam	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-3750 psi	Air	UV
3-4 NPS	4 - 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-2250 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-2250 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-2250 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	UV
6 NPS	8 - 10 NPS	18.6 in²	[R] 4.867 in	1.29 in	15-1500 psi	Air	UV
6 NPS	8 - 10 NPS	18.6 in²	[R] 4.867 in	1.29 in	15-905 psi	Steam	UV
8 NPS	10 NPS	30.21 in²	[T] 6.205 in	1.723 in	15-905 psi	Air	UV
8 NPS	10 NPS	30.21 in²	[T] 6.205 in	1.723 in	15-905 psi	Steam	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-905 psi	Steam	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-675 psi	Air	UV
10 NPS	14 NPS	50.26 in ²	[V] 8.002 in	2.162 in	15-300 psi	Steam	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-535 psi	Air	UV

12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	UV		
Design Nam	e: 3900 (39P	₽V, 39MV p	ilots)	NBCert	# 18447				
Manufacturer/	Assembler		Designate	ors	E	xpiration Date	9		
Assembler			UV		04	4/24/2027			
Design Type									
[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on May 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-6250 psi	Air	UV		
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	NV		
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	UV		
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Air	UV		
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	NV		
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	UV		
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-6250 psi	Air	UV		
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-750 psi	Steam	NV		
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-750 psi	Steam	UV		
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Air	UV		
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	NV		
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	UV		
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-6250 psi	Air	UV		
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	NV		
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	UV		
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Air	UV		
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	NV		
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	UV		
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-750 psi	Steam	UV		
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Air	UV		
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Air	UV		
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	NV		
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	UV		
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-750 psi	Steam	UV		
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Air	UV		
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Air	UV		
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	NV		
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	UV		

4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Air	UV			
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	NV			
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	UV			
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Air	UV			
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	NV			
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	UV			
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-750 psi	Steam	UV			
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Air	UV			
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Air	UV			
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	NV			
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	UV			
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-750 psi	Steam	UV			
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Air	UV			
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Air	UV			
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	NV			
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	UV			
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Air	UV			
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	NV			
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	UV			
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Air	UV			
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-750 psi	Steam	UV			
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Air	UV			
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	NV			
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	UV			
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Air	UV			
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-700 psi	Steam	UV			
10 NPS	10-14 NPS	63.62 in²	[W] 9 in	3 in	15-1500 psi	Air	UV			
10 NPS	10-14 NPS	63.62 in²	[W] 9 in	3 in	15-750 psi	Steam	NV			
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	UV			
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Air	UV			
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-750 psi	Steam	UV			
Design Name	₂· 3000 (30P	\/39M\/_ni	lots liquid)	NBCert #	± 18458					
		v, com p			-		_			
Manufacturer/A	ssembler		Designato	ors	E	piration Date				
Assembler			UV		09	/04/2027				
Design Type [Pilot Operated I	Pressure Relief Value	3900 (300)/	39MV pilots liquid)							
Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara	[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots, liquid) Capacity Tests: Sec. UV at Dresser, Inc. on June 1, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.743 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed									

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Water	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Water	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	UV
8 NPS	10 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Water	UV

Shanghai Huali Safety Devices Co., Ltd. (SHS)

SHANGHAI, 201108People's Republic of China

This Company Manufactures or Assembles:

Design Nam	e: DS				NBCert #	0166	3		
Manufacturer/A	Assembler		Designat	ors			Expiration Dat	te	
Manufacturer			UD				05/24/2025		
Design Type									
[Rupture Disk D HolderDesignati Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Flow Area Confi Designed by: Sh	evice] DS on: DHA, DHA-ZK Sec. UD at National E blishing Relieving Cap 0.730 Unitless r/Gas; Certified: Com efinition: Burst Pressu guration: MNFA nanghai Huali Safety	Board Testing L bacity: Resistar npressible (Krg) ne Devices Co., Lt	ab on December 13, 2 ice Factor, 3 Size, Krg id. {SHS}	2017					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift		Set Pressure Range	Media	Designator	
1 NPS		0.76 in ²				130.5 - 435 psi		UD	
1.25 NPS		1.23 in ²				87-435 psi		UD	
1.5 NPS		1.77 in ²				50.75-435 psi		UD	
10 NPS		76.05 in ²				4.35-261 psi		UD	
12 NPS		109.51 in ²				4.35-188.5 psi		UD	
14 NPS		149.05 in ²				4.35-130.5 psi		UD	
16 NPS		194.68 in ²				3.625-130.5 psi		UD	
18 NPS		246.39 in ²				3.625-113.1 psi		UD	
2 NPS		3.04 in ²				50.75-435 psi		UD	
2.5 NPS		4.91 in ²				23.2-406 psi		UD	
20 NPS		304.19 in ²				3.625-113.1 psi		UD	
24 NPS		438.03 in ²				2.175-94.25 psi		UD	
26 NPS		514.08 in ²				2.175-72.5 psi		UD	
28 NPS		596.21 in ²				2.175-72.5 psi		UD	
3 NPS		7.07 in ²				23.2-406 psi		UD	
30 NPS		684.42 in ²				1.45-58 psi		UD	
32 NPS		778.72 in ²				1.45-58 psi		UD	
4 NPS		12.17 in ²				13.05-377 psi		UD	
5 NPS		19.01 in ²				13.05-377 psi		UD	
6 NPS		27.38 in ²				7.25-333.5 psi		UD	
8 NPS		48.67 in ²				7.25-261 psi		UD	

Design Name: FS	NBCer	t # 016	52	
Manufacturer/Assembler	Designators		Expiration Date	
Manufacturer	UD		09/25/2024	
Design Type				
[Rupture Disk Device] FS				
Capacity Tests: Sec. UD at National Board Testing Lab on De	cember 12, 2017			
Method of Establishing Relieving Capacity: Resistance Factor	, 3 Size, Krg			
Media - Test: Air/Gas; Certified: Compressible (Krg)				
Set Pressure Definition: Burst Pressure				
Flow Area Configuration: MNFA				

Designed by: Shanghai Huali Safety Devices Co., Ltd. {SHS}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.76 in ²			17.4-174 psi		UD
1.25 NPS		1.23 in ²			17.4-174 psi		UD
1.5 NPS		1.77 in ²			13.05-145 psi		UD
10 NPS		76.05 in ²			8.7-58 psi		UD
12 NPS		109.51 in ²			8.7-58 psi		UD
14 NPS		149.05 in ²			4.35-43.5 psi		UD
16 NPS		194.68 in ²			4.35-36.25 psi		UD
18 NPS		246.39 in ²			2.9-29 psi		UD
2 NPS		3.04 in ²			13.05-145 psi		UD
2.5 NPS		4.91 in ²			13.05-145 psi		UD
20 NPS		304.19 in ²			2.9-29 psi		UD
24 NPS		438.03 in ²			1.45-29 psi		UD
3 NPS		7.07 in ²			13.05-116 psi		UD
4 NPS		12.17 in ²			13.05-87 psi		UD
5 NPS		19.01 in ²			13.05-87 psi		UD
6 NPS		27.38 in ²			10.88-72.5 psi		UD
8 NPS		48.67 in ²			10.88-72.5 psi		UD

 Design Name:
 RM90
 NBCert # 01630

 Manufacturer/Assembler
 Designators
 Expiration Date

 Manufacturer
 UD
 09/25/2024

Design Type

[Rupture Disk Device] RM90 HolderDesignation: ROHA, ROHA-ZK Capacity Tests: Sec. UD at National Board Testing Lab on December 12, 2017 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krg Certified Value: 0.500 Unitless Media - Test: Air/Gas; Certified: Compressible (Krg) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Shanghai Huali Safety Devices Co., Ltd. {SHS}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.76 in ²			217.5-1450 psi		UD
1.25 NPS		1.23 in ²			188.5-1450 psi		UD
1.5 NPS		1.77 in ²			145-1450 psi		UD
10 NPS		76.05 in ²			29-362.5 psi		UD
12 NPS		109.51 in²			29-290 psi		UD
14 NPS		149.05 in²			26.1-217.5 psi		UD
16 NPS		194.68 in²			26.1-145 psi		UD
18 NPS		246.39 in ²			23.2-116 psi		UD
2 NPS		3.04 in ²			101.5-1450 psi		UD
2.5 NPS		4.91 in ²			87-1450 psi		UD
20 NPS		304.19 in²			21.75-87 psi		UD
3 NPS		7.07 in ²			87-1160 psi		UD
4 NPS		12.17 in ²			72.5-1160 psi		UD
5 NPS		19.01 in ²			58-725 psi		UD
6 NPS		27.38 in ²			43.5-725 psi		UD
8 NPS		48.67 in²			36.25-507.5 psi		UD

Design Name: R

RS

NBCert #

0104

Manufacturer/Assembler	Designators	Expiration Date						
Manufacturer	UD	05/24/2025						
Design Type								
[Rupture Disk Device] RS HolderDesignation: ROHA, ROHA-ZK Capacity Tests: Sec. UD at National Board Testing Lab on Dec Method of Establishing Relieving Capacity: Resistance Factor, Certified Value: 3.420 Unitless Media - Test: Air/Gas; Certified: Compressible (Krg) Set Pressure Definition: Burst Pressure	ember 12, 2017 3 Size, Krg							

Flow Area Configuration: MNFA Designed by: Shanghai Huali Safety Devices Co., Ltd. {SHS}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.76 in ²			36.25-290 psi		UD
1.25 NPS		1.23 in ²			36.25-261 psi		UD
1.5 NPS		1.77 in ²			29-217.5 psi		UD
10 NPS		76.05 in ²			7.25-58 psi		UD
12 NPS		109.51 in ²			4.35-43.5 psi		UD
14 NPS		149.05 in ²			2.9-36.25 psi		UD
16 NPS		194.68 in ²			2.175-29 psi		UD
18 NPS		246.39 in ²			2.175-29 psi		UD
2 NPS		3.04 in ²			21.75-174 psi		UD
2.5 NPS		4.91 in ²			21.75-145 psi		UD
20 NPS		304.19 in ²			2.175-29 psi		UD

3 NPS	7.07 in ²	14.5-116 psi	UD
4 NPS	12.17 in ²	14.5-116 psi	UD
5 NPS	19.01 in ²	8.7-87 psi	UD
6 NPS	27.38 in ²	8.7-72.5 psi	UD
8 NPS	48.67 in ²	7.25-72.5 psi	UD

Shanghai Kaite Valve Manufacture Co., Ltd. (SKV)

Anting, Shanghai, 201814People's Republic of China

This Company Manufactures or Assembles:

Design Name: NBCert # Manufacturer/Assembler Designators **Expiration Date** UV Manufacturer 11/09/2027 **Design Type** [Safety Relief Valve] 11KH19xxxx Capacity Tests: Sec. UV at National Board Testing Lab on March 10, 2015 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 6.430 SCFM/PSIA Media - Test: Air/Gas; Certified: Gas Set Pressure Definition: Start-to-Leak Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Shanghai Kaite Valve Manufacture Co., Ltd. {SKV} Set Pressure Orifice **Outlet Size** Media Inlet Size Flow Area Lift Designator [designator] dia. Range 1.625 in 1.25 in 285.02 mm² 19.05 mm 4.763 mm 50-300 psi UV

Storm Manufacturing Group (KNG)

Torrance, CA 90501United States

This Company Manufactures or Assembles:

Design Name: 112C (.250" Orif.)		NBCert # 3	35019	
Manufacturer/Assembler	Designators		Exp	piration Date
Manufacturer	UV		02/2	22/2027
Design Type [Safety Relief Valve] 112C (.250" Orif.) Capacity Tests: Sec. UV at Phillips Petroleum on February 11, Method of Establishing Relieving Capacity: Flow Capacity, Slo Certified Value: 0.510 SCFM/PSIA; (alternate medium): 1.430 Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Storm Manufacturing Group {KNG}	1966 pe PPH/PSIA			

Nameplate Abbreviation: SHKT

Nameplate Abbreviation: Kingston

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.25-0.375 NPS		0.049 in ²	0.25 in	0.062 in	25-300 psi	Air	UV	
0.25-0.375 NPS		0.049 in ²	0.25 in	0.062 in	36-56 psi	Steam	UV	
Design Name	: 112C (.375	" Orif.)		NBCert #	± 35020			
Manufacturer/As	ssembler		Designato	rs	Ex	piration Date		
Manufacturer			UV		02	/22/2027		
Design Type								
[Safety Relief Valve] 112C (.375" Orif.) Capacity Tests: Sec. UV at Phillips Petroleum on February 11, 1966 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.780 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Storm Manufacturing Group {KNG}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5 NPS		0.11 in ²	0.375 in	0.094 in	25-300 psi	Air	UV	
	Design Name: 710D NBCert # 35154							
Design Name	: 710D			NBCert #	± 35154			
Design Name Manufacturer/As	: 710D ssembler		Designato	NBCert # rs	± 35154 Ex	piration Date		
Design Name Manufacturer/As Manufacturer	: 710D ssembler	_	Designato UV	NBCert # rs	4 35154 Ex 02	piration Date /28/2025	_	
Design Name Manufacturer/As Manufacturer Design Type	: 710D ssembler		Designato UV	NBCert #	4 35154 Ex 02	piration Date	_	
Design Name Manufacturer/As Manufacturer Design Type [Safety Relief Val Capacity Tests: S Method of Establi Certified Value: 2 Media - Test: Air/ Set Pressure Def Blowdown Charae Flow Area Config Designed by: Sto	: 710D ssembler ve] 710D iec. UV at National B ishing Relieving Cap .200 SCFM/PSIA; (a (Gas, Steam; Certifie inition: Pop cteristics: Fixed uration: Nozzle/Full I rm Manufacturing Gr	oard Testing La acity: Flow Cap Iternate mediur d: Air, Gas, Ste _ift oup {KNG}	Designato UV ab on January 23, 2013 bacity, Slope m): 6.180 PPH/PSIA eam	NBCert #	4 35154 Ex 02	piration Date /28/2025		
Design Name Manufacturer/As Manufacturer Design Type [Safety Relief Val Capacity Tests: S Method of Establi Certified Value: 2 Media - Test: Air/ Set Pressure Def Blowdown Charae Flow Area Config Designed by: Sto Inlet Size	: 710D ssembler ve] 710D sec. UV at National B ishing Relieving Cap .200 SCFM/PSIA; (a (Gas, Steam; Certifie inition: Pop cteristics: Fixed uration: Nozzle/Full I rm Manufacturing Gr Outlet Size	oard Testing La acity: Flow Cap Iternate mediur d: Air, Gas, Ste Lift roup {KNG} Flow Area	Designato UV ab on January 23, 2013 bacity, Slope n): 6.180 PPH/PSIA eam	NBCert # rs 3 Lift	4 35154 Ex 02 Set Pressure Range	piration Date /28/2025 Media	Designator	
Design Name Manufacturer/As Manufacturer Design Type [Safety Relief Val Capacity Tests: S Method of Establi Certified Value: 2 Media - Test: Air/ Set Pressure Def Blowdown Charae Flow Area Config Designed by: Sto Inlet Size 0.5-1 NPS	: 710D ssembler ve] 710D sec. UV at National B ishing Relieving Cap .200 SCFM/PSIA; (a (Gas, Steam; Certifie inition: Pop cteristics: Fixed uration: Nozzle/Full I rm Manufacturing Gr Outlet Size .75, 1 NPS	oard Testing La acity: Flow Cap Iternate mediur d: Air, Gas, Ste Lift roup {KNG} Flow Area 0.137 in ²	Designato UV ab on January 23, 2013 bacity, Slope n): 6.180 PPH/PSIA eam Orifice [designator] dia. [D] 0.418 in	NBCert # rs 3 Lift 0.104 in	4 35154 Ex 02 02 Set Pressure Range 15-250 psi	piration Date /28/2025 Media Steam	Designator	
Design Name Manufacturer/As Manufacturer Design Type [Safety Relief Val Capacity Tests: S Method of Establi Certified Value: 2 Media - Test: Air/ Set Pressure Def Blowdown Charae Flow Area Config Designed by: Sto Inlet Size 0.5-1 NPS 0.5-1 NPS	: 710D ssembler ve] 710D sec. UV at National B ishing Relieving Cap .200 SCFM/PSIA; (a (Gas, Steam; Certifie inition: Pop cteristics: Fixed uration: Nozzle/Full I rm Manufacturing Gr Outlet Size .75, 1 NPS .75, 1 NPS	oard Testing La acity: Flow Cap Iternate mediur d: Air, Gas, Ste Lift roup {KNG} Flow Area 0.137 in ² 0.137 in ²	Designato UV ab on January 23, 2013 bacity, Slope n): 6.180 PPH/PSIA eam Orifice [designator] dia. [D] 0.418 in [D] 0.418 in	NBCert # rs 3 Lift 0.104 in 0.104 in	 35154 Ex 02 Set Pressure 15-250 psi 15-400 psi 	piration Date /28/2025 //////////////////////////////////	Designator UV UV	
Design Name Manufacturer/As Manufacturer Design Type [Safety Relief Vali Capacity Tests: S Method of Establi Certified Value: 2 Media - Test: Air/ Set Pressure Def Blowdown Charaa Flow Area Config Designed by: Sto Inlet Size 0.5-1 NPS 0.5-1 NPS	: 710D ssembler ve] 710D sec. UV at National B ishing Relieving Cap .200 SCFM/PSIA; (a 'Gas, Steam; Certifie inition: Pop cteristics: Fixed uration: Nozzle/Full I rm Manufacturing Gr Outlet Size .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS	oard Testing La acity: Flow Cap Iternate mediur d: Air, Gas, Ste 	Designato UV ab on January 23, 2013 pacity, Slope m): 6.180 PPH/PSIA mam Orifice [designator] dia. [D] 0.418 in [D] 0.418 in	NBCert # rs 3 Lift 0.104 in 0.104 in NBCert #	 35154 Ex 02 35064 	piration Date /28/2025 //////////////////////////////////	Designator UV UV	
Design Name Manufacturer/As Manufacturer Design Type [Safety Relief Vali Capacity Tests: S Method of Establi Certified Value: 2 Media - Test: Air/ Set Pressure Def Blowdown Chara Flow Area Config Designed by: Sto Inlet Size 0.5-1 NPS 0.5-1 NPS Design Name Manufacturer/As	: 710D ssembler ve] 710D sec. UV at National B ishing Relieving Cap .200 SCFM/PSIA; (a Gas, Steam; Certifie inition: Pop cteristics: Fixed uration: Nozzle/Full L rm Manufacturing Gr Outlet Size .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS .75, 1 NPS	oard Testing La acity: Flow Cap Iternate mediur d: Air, Gas, Ste .ift oup {KNG} Flow Area 0.137 in ² 0.137 in ² 1115 (.265 C	Designato UV ab on January 23, 2013 pacity, Slope m): 6.180 PPH/PSIA am Orifice [designator] dia. [D] 0.418 in [D] 0.418 in [D] 0.418 in	NBCert # rs Lift 0.104 in 0.104 in NBCert # rs	 35154 Ex 02 35064 35064 Ex 	piration Date /28/2025 //////////////////////////////////	Designator	

200.9								
[Safety Relief Valve] Fig. 114 & 115 (.265 Orif.) Capacity Tests: Sec. UV at Phillips Petroleum on October 23, 1961 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.690 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Storm Manufacturing Group {KNG}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.375 NPS		0.055 in ²	0.265 in	0.066 in	25-275 psi	Air	UV	
Design Name	e: Fig. 114 &	115 (.312"	Orif.)	NBCert a	# 3507	5		
Manufacturer/A	ssembler		Designato	ors		Expiration Date		
Manufacturer			UV			10/24/2026		
Design Type								
[Safety Relief Valve] Fig. 114 & 115 (.312" Orif.) Capacity Tests: Sec. UV at Phillips Petroleum on October 23, 1961 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.850 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Storm Manufacturing Group {KNG}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5 NPS		0.076 in ²	0.312 in	0.078 in	25-275 psi	Air	UV	
Design Name	e: Fig. 114 (.4	437" Orif.)		NBCert ;	# 3503	1		
Manufacturer/A	ssembler		Designato	ors		Expiration Date		
Manufacturer			UV			10/24/2026		
Design Type								
[Safety Relief Valve] Fig. 114 (.437" Orif.) Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on January 17, 1982 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.600 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed hus Sterm Meanwing Corum (KNC)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75 NPS		0.15 in ²	0.437 in	0.144 in	25-250 psi	Air	UV	
Design Name	e: Fig. 114 (.e	625" Orif.)		NBCert ;	# 3504	.2		
Manufacturer/A	ssembler		Designato	ors		Expiration Date		
Manufacturer			UV			12/22/2026		

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[Safety Relief Valve] Fig. 114 (.625" Orif.) Capacity Tests: Sec. UV at Phillips Petroleum on January 17, 1962 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 2.370 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Storm Manufacturing Group {KNG}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1 NPS		0.307 in ²	0.625 in	0.156 in	25-250 psi	Air	UV	
Design Name	e: Fig. 118C	& 119 (.359	" Orif.)	NBCert	# 3509	17		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer			UV			03/12/2027		
Design Type								
[Safety Relief Valve] Fig. 118C & 119 (.359" Orif.) Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on June 24, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.540 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Storm Manufacturing Group {KNG}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.375-0.5 NPS		0.101 in ²	0.359 in	0.123 in	25-300 psi	Air	UV	
Design Name	e: Fig. 118C	& 119 (.578	3" Orif)	NBCert	# 3510	9		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer			UV			04/13/2025		
Design Type								
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Sto	[Safety Relief Valve] Fig. 118C & 119 (.578" Orif) Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on June 1, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 3.670 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed has theme Memory for the former former of the former							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.75-1 NPS		0.262 in ²	0.578 in	0.144 in	25-300 psi	Air	UV	
Design Name	e: KSV10-1 8	k KSV10-2		NBCert	# 3513	2		
Manufacturer/A	ssembler		Designate	ors		Expiration Date		
Manufacturer			UV			05/22/2024		

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Design Type								
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: St	alve] KSV10-1 & KSV Sec. UV at National E blishing Relieving Cap 0.283 SCFM/PSIA r/Gas; Certified: Air, C sfinition: Pop acteristics: Fixed guration: Nozzle/Full orm Manufacturing G	/10-2 Board Testing L bacity: Flow Ca Bas Lift roup {KNG}	ab on Septemb pacity, Slope	er 18, 1997				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] (dia. Lift		Set Pressure Range	Media	Designator
0.125-0.25 NPS		0.019 in ²	0.156 in			20-300 psi	Air	UV
Design Name	e: KSV25 (0.2	25 Orifice)			NBCert #	# 351:	21	
Manufacturer/A	ssembler		Des	ignators			Expiration Date	•
Manufacturer			UV				08/17/2024	
Design Type								
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 0 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Sta	alve] KSV25 (0.25 Or Sec. UV at National E blishing Relieving Cap 0.726 SCFM/PSIA; (a r/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full orm Manufacturing G	ifice) Board Testing L bacity: Flow Ca Ilternate mediu Bas, Steam Lift roup {KNG}	ab on July 10, 1 pacity, Slope m): 2.040 PPH	997 /PSIA				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] d	dia. Lift		Set Pressure Range	Media	Designator
0.125-0.375 NPS		0.049 in²	0.25 in			20-450 psi	Air	UV
0.125-0.375 NPS		0.049 in ²	0.25 in			36-54 psi	Steam	UV
Design Name	e: KSV30				NBCert #	# 351	87	
Manufacturer/A	ssembler		Des	ignators			Expiration Date	•
Manufacturer			UV				07/29/2026	
Design Type								
[Cafety Daliaf)/a	1 1 1 (0) (00							
Capacity Tests: 3 Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Str	avej KSV30 Sec. UV at National E Ilishing Relieving Cap 1.900 SCFM/PSIA r/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full orm Manufacturing G	Board Testing L bacity: Flow Ca Bas Lift roup {KNG}	ab on March 6, pacity, Slope	2020				
Capacity Relief Va Capacity Tests: 3 Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Str Inlet Size	Avej KSV30 Sec. UV at National E Ilishing Relieving Cap 1.900 SCFM/PSIA r/Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full orm Manufacturing G Outlet Size	Board Testing L bacity: Flow Ca Bas Lift roup {KNG} Flow Area	ab on March 6, pacity, Slope Orifice [designator] o	2020 dia. Lift		Set Pressure Range	Media	Designator

Design Name	e: KSV35			NBCert	# 35198	8			
Manufacturer/A	ssembler		Designate	ors	E	Expiration Date	•		
Manufacturer			UV		C	07/29/2026			
Design Type									
[Safety Relief Va Capacity Tests: S Method of Establ Certified Value: 3 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Sto	Ive] KSV35 Sec. UV at National E lishing Relieving Cap 3.400 SCFM/PSIA /Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full prm Manufacturing G	Board Testing L bacity: Flow Ca Gas Lift iroup {KNG}	ab on March 6, 2020 pacity, Slope						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-0.75 NPS		0.233 in ²	0.545 in	0.2 in	20-300 psi	Air	UV		
Design Name: KSV40 NBCert # 35176									
Design Name	e: KSV40			NBCert	# 35176	6			
Design Name Manufacturer/A	e: KSV40 ssembler		Designate	NBCert ; prs	# 35176 E	6 Expiration Date	•		
Design Name Manufacturer/A Manufacturer	e: KSV40 ssembler	_	Designate	NBCert ; ors	# 35176 E	6 Expiration Date 07/29/2026	•		
Design Name Manufacturer/A Manufacturer Design Type	e: KSV40 ssembler		Designate UV	NBCert : ors	# 35176 E	6 Expiration Date 07/29/2026	•		
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Establ Certified Value: 7 Media - Test: Air Set Pressure Des Blowdown Chara Flow Area Config Designed by: Sto	e: KSV40 ssembler lve] KSV40 Sec. UV at National E lishing Relieving Cap 7.070 SCFM/PSIA /Gas; Certified: Air, O finition: Pop acteristics: Fixed guration: Nozzle/Full orm Manufacturing G	Board Testing L bacity: Flow Ca Gas Lift iroup {KNG}	Designato UV ab on June 26, 2020 pacity, Slope	NBCert : ors	# 35176 E	6 Expiration Date 07/29/2026			
Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: S Method of Establ Certified Value: 7 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Sto	e: KSV40 ssembler lve] KSV40 Sec. UV at National E lishing Relieving Cap 7.070 SCFM/PSIA /Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full orm Manufacturing G Outlet Size	Board Testing L bacity: Flow Ca Gas Lift iroup {KNG} Flow Area	Designato UV ab on June 26, 2020 pacity, Slope	NBCert :	# 35176	6 Expiration Date 07/29/2026 Media	Designator		

Target Rock (TRC)

E. Farmingdale, NY 11735United States

This Company Manufactures or Assembles:

Design Name: 2	VRES-S-1	N	BCert # 552	80
Manufacturer/Assemble	er	Designators		Expiration Date
Manufacturer		NV		10/25/2024

Design Type											
[Vacuum Relief V Capacity Tests: S Method of Estab Certified Value:6 Media - Test: Air	Valve] 2VRES-S-1 Sec. NV at National E Iishing Relieving Cap 11.000 SCFM r/Gas; Certified: Air, 0	Board Testing L bacity: Flow Ca Gas	ab on Augı pacity, 1 va	ust 24, 1993 Ilve method	3						
Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Target Rock {TRC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia.	Lift	Set Pressure Range	Media	Designator			
2 NPS	Top NPS	0.478 in²	1.75 in			1-0 psi	Air	NV			
Design Name: 69C, 0569C-001 NBCert # 55224											
Manufacturer/A	ssembler			Designate	ors		Expiration Date	e			
Manufacturer				NV			10/07/2027				
Design Type											
[Pilot Operated Pressure Relief Valve] 69C, 0569C-001 Capacity Tests: Sec. NV at Ohio State University (Robinson Laboratory) on August 17, 1969 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.742 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Target Rock {TRC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia.	Lift	Set Pressure Range	Media	Designator			
6 NPS	6 NPS	3.51 in ²	2.443 in		0.98 in	2250-2485 psi	Steam	NV			
Design Name	e: 6AD, Liqui	ds			NBCert	# 5529)1				
Manufacturer/A	ssembler			Designate	ors		Expiration Date	e			
Manufacturer				NV			07/10/2024				
Design Type											
[Safety Relief Valve] 6AD, Liquids Capacity Tests: Sec. NV, -Class 1, -Class 2, -Class 3 at unknown lab on June 22, 1983 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.080 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed here Terret Deals (TED)											
Inlet Size	Outlet Size	Flow Area	Orifice [designa	tor] dia.	Lift	Set Pressure Range	Media	Designator			
0.75-1 NPS	1 NPS	0.11 in ²	0.375 in		0.125 in	50-3000 psi	Water	NV			
0.75-1 NPS	1 NPS	0.11 in ²	0.375 in		0.125 in	50-3000 psi	Water	UV			
Design Name	e: 6AM				NBCert	# 5534	.7				
Manufacturer/A	ssembler			Designate	ors		Expiration Date	9			

NV

Manufacturer

10/25/2024

Design Type											
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Tai	lve] 6AM Sec. NV at National E lishing Relieving Cap 0.725 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rget Rock {TRC}	Board Testing L bacity: Flow Ca Liquid Stream Lift	ab on June 21, 1995 pacity, K								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
1-2 NPS	2 - 3 NPS	0.307 in ²	0.625 in	0.21 in	60-3000 psi	Water	NV				
Design Name	e: 6AN			NBCert	# 5536	69					
Manufacturer/A	ssembler		Designate	ors		Expiration Date					
Manufacturer			NV			10/25/2024					
Design Type											
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 0 Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Tai	lve] 6AN Sec. NV at National E lishing Relieving Cap 0.609 Unitless ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full rget Rock {TRC}	Board Testing L bacity: Flow Ca Liquid Stream Lift	ab on June 20, 1995 pacity, K								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
1.5-3 NPS	2 - 4 NPS	0.785 in ²	1 in	0.33 in	40-3000 psi	Water	NV				
Design Name	e: 6AO, 93R-	024		NBCert	# 5532	25					
Manufacturer/A	ssembler		Designate	ors		Expiration Date	2				
Manufacturer			NV			10/25/2024					
Design Type											
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Tai	Design Type [Safety Relief Valve] 6AO, 93R-024 Capacity Tests: Sec. NV at National Board Testing Lab on June 21, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.422 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed how Comparison										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
6 NPS	10 NPS	18.67 in²	4.876 in	1.125 in	30-3000 psi	Water	NV				
Design Name	e: 6AR			NBCert	# 5530)3					
Manufacturer/A	ssembler		Designate	ors		Expiration Date	· · · · · · · · · · · · · · · · · · ·				
Manufacturer			NV			10/25/2024					

[Safety Relief Valve] 6AR Capacity Tests: Sec. NV at National Board Testing Lab (Picaway) on August 29, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.431 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Target Rock {TRC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
6 NPS	8 NPS	9.32 in ²	4.3 in	0.69 in	30-150 psi	Water	NV				
Design Name: 6AS NBCert # 55314											
Manufacturer/A	Manufacturer/Assembler Designators Expiration Date										
Manufacturer			NV			10/25/2024					
Design Type											
[Safety Relief Valve] 6AS Capacity Tests: Sec. NV at National Board Testing Lab on August 29, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.445 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Target Rock {TRC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
3 NPS	4 NPS	3.768 in ²	2.438 in	0.49 in	50-150 psi	Water	NV				
Design Name	e: 6AU			NBCert	# 5538	31					
Manufacturer/A	ssembler		Designate	ors		Expiration Date	e				
Manufacturer			NV			01/25/2027					
Design Type											
[Relief Valve] 6/ Capacity Tests: 5 Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Chara Flow Area Config Designed by: Ta	[Relief Valve] 6AU Capacity Tests: Sec. NV, UV at National Board Testing Lab on December 1, 1999 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 1.410 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	.75 - 2.5 NPS	0.049 in ²	0.25 in		- 50-3000 psi	Water	NV				
Design Name	e: 6AV			NBCert	# 5539)2					
Manufacturer/A	ssembler		Designate	ors		Expiration Date	e				
Manufacturer			NV			09/27/2024					

Design Type										
[Safety Relief Valve] 6AV Capacity Tests: Sec. NV, -Class 1, -Class 2, -Class 3 at National Board Testing Lab on March 9, 2000 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.791 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Target Rock {TRC}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
8 NPS	10 NPS	18.47 in²	4.85 in	1.45 in	1100-1250 psi	Steam	NV			
Design Name	e: 6AW (98∖	/-005-3)		NBCert	# 55415					
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date	e			
Manufacturer			NV		07	/07/2027				
Design Type										
[Safety Relief Valve] 6AW (98V-005-3) Capacity Tests: Sec. NV, -Class 3 at National Board Testing Lab on June 9, 2000 Method of Establishing Relieving Capacity: Flow Capacity, 1 valve method Certified Value: 0.617 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Target Rock {TRC}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1 NPS	2 NPS	0.196 in ²	0.5 in	0.199 in	1544-1544 psi	Water	NV			
Design Name	e: 6AX (98V-	005-2)		NBCert	# 55426					
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date	e			
Manufacturer			NV		06	/09/2027				
Design Type										
Design Type [Safety Relief Valve] 6AX (98V-005-2) Capacity Tests: Sec. NV at National Board Testing Lab on June 9, 2000 Method of Establishing Relieving Capacity: Flow Capacity, 1 valve method Certified Value:794.00 SCFM Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift										
Flow Area Config Designed by: Ta	guration: Nozzle/Full rget Rock {TRC}	Lift								
Flow Area Config Designed by: Ta	guration: Nozzle/Full rget Rock {TRC}	Lift Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
Flow Area Config Designed by: Ta Inlet Size 2 NPS	Quration: Nozzle/Full rget Rock {TRC} Outlet Size 2.5 NPS	Lift Flow Area 0.196 in ²	Orifice [designator] dia. 0.5 in	Lift 0.166 in	Set Pressure Range 219-219 psi	Media Air	Designator NV			
Inlet Size 2 NPS	actensities: Fixed guration: Nozzle/Full rget Rock {TRC} Outlet Size 2.5 NPS e: 6AY (97N-	Lift Flow Area 0.196 in ²	Orifice [designator] dia. 0.5 in	Lift 0.166 in NBCert	Set Pressure Range 219-219 psi # 55437	Media Air	Designator NV			
Inlet Size 2 NPS Design Name Manufacturer/A	actensities: Fixed guration: Nozzle/Full rget Rock {TRC} Outlet Size 2.5 NPS e: 6AY (97N- Assembler	Lift Flow Area 0.196 in ² 006)	Orifice [designator] dia. 0.5 in Designate	Lift 0.166 in NBCert :	Set Pressure Range 219-219 psi # 55437	Media Air cpiration Date	Designator NV			

Designitype											
[Safety Relief Valve] 6AY (97N-006) Capacity Tests: Sec. NV, -Class 3 at National Board Testing Lab on June 9, 2000 Method of Establishing Relieving Capacity: Flow Capacity, 1 valve method Certified Value:257.00 GPM Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Target Rock {TRC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] di	a. Lift		Set Pressure Range	Media	Designator			
4 NPS	6 NPS	4.987 in ²	2.52 in	0.8 in	1	3-0 psi	Water	NV			
Design Name: 6AZ (97N-014) NBCert # 55505											
Manufacturer/Assembler Designators Expiration Date											
Manufacturer			NV				08/01/2027				
Design Type											
[Safety Relief Valve] 6AZ (97N-014) Capacity Tests: Sec. NV, -Class 1, -Class 2, -Class 3 at National Board Testing Lab on July 14, 2000 Method of Establishing Relieving Capacity: Flow Capacity, 1 valve method Certified Value:673.00 SCFM Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Target Rock {TRC}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] di	a. Lift		Set Pressure Range	Media	Designator			
2 NPS	2 NPS	2.4 in ²	1.75 in	0.685	5 in	8-0 psi	Air	NV			
Design Name	e: 6BA (97N-	016)			NBCert #	# 5549	93				
Manufacturer/A	ssembler		Desig	gnators			Expiration Date	1			
Manufacturer			NV				11/03/2027				
Design Type											
[Vacuum Relief V Capacity Tests: S Method of Establ Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Tar	alve] 6BA (97N-016 Sec. NV, -Class 1, -C ishing Relieving Cap 155.0 SCFM /Gas; Certified: Air, G finition: Initial Audible Interistics: Fixed Juration: Curtain Area get Rock {TRC}) lass 2, -Class 3 acity: Flow Cap Gas : Discharge	3 at National Boar bacity, 1 valve me	rd Testing La ∍thod	ab on Noverr	וber 3, 2000					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] di	a. Lift		Set Pressure Range	Media	Designator			
4 NPS	4 NPS	12.75 in²	4.25 in	1.5 ir	١	0.25-0 psi	Air	NV			
Design Name	e: 6BC				NBCert #	# 5552	27				
Manufacturer/A	ssembler		Desig	gnators			Expiration Date				
Manufacturer			NV				10/31/2025				

eian Tu

Design Type

[Safety Relief Valve] 6BC Capacity Tests: Sec. NV at National Board Testing Lab on October 31, 2003 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 0.782 SCFM/PSIA; (alternate medium): 2.197 PPH/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Target Rock {TRC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator					
0.75 NPS	1 NPS	0.049 in ²	0.25 in	0.083 in	25-1500 psi	Steam	NV					
0.75 NPS	1 NPS	0.049 in ²	0.25 in	0.083 in	25-3000 psi	Air	NV					
Design Name: 6BD NBCert # 55538												
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date)					
Manufacturer NV 03/20/2026												
Design Type	Design Type											
[Safety Valve] 6BD Capacity Tests: Sec. NV, -Class 1, -Class 2, -Class 3 at National Board Testing Lab on February 20, 2009 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.722 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Target Rock {TRC}												
Inlet Size Outlet Size Flow Area Orifice Lift Set Pressure Media Designator [designator] dia.												
6 NPS	10 NPS	17.34 in²	4.7 in	1.18 in	1100-1350 psi	Steam	NV					
Design Name	e: 6BH			NBCert	# 55123							
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date	•					
Manufacturer			NV		07	/14/2026						
Design Type												
[Vacuum Relief Valve] 6BH Capacity Tests: Sec. NV, -Class 2, -Class 3 at National Board Testing Lab on July 14, 2014 Method of Establishing Relieving Capacity: Flow Capacity, 1 valve method Certified Value:632.00 SCFM Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Curtain Area Designed by: Terset Redk (TEPC)												
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator					
	4 in	5.5 in²	4.25 in	0.7 in	-0.3 psi	Air	NV					

Taylor Valve Technology, Inc (TTS)

Oklahoma City, OK 73128United States

This Company Manufactures or Assembles:

Design Name	e: 19-311000			NBCer	t# 5639	3	
Manufacturer/A	ssembler		Designa	tors		Expiration Date	
Manufacturer			UV			09/08/2026	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Tay	Ive] 19-311000 Sec. UV at National E lishing Relieving Cap 3.030 SCFM/PSIA /Gas; Certified: Air, C finition: Pop loteristics: Fixed juration: Nozzle/Full /lor Valve Technolog	Board Testing L bacity: Flow Ca Gas Lift y, Inc {TTS}	ab {unknown test da pacity, Slope	te}			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS	1 NPS	0.196 in ²	0.5 in	0.16 in	50-1600 psi	Air	UV
Design Name	e: 19-311000) (Liquid)		NBCer	t# 5640	5	
Manufacturer/A	ssembler		Designa	tors		Expiration Date	
Manufacturer			UV			09/08/2026	
Design Type							
[Relief Valve] 19 Capacity Tests: 5 Method of Establ Certified Value: 4 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Tay	-311000 (Liquid) Sec. UV at National E lishing Relieving Cap 1.790 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full /lor Valve Technolog	Board Testing L bacity: Flow Ca 2SID Liquid Stream Lift y, Inc {TTS}	ab {unknown test da pacity, Flow Factor	te}			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS	1 NPS	0.196 in ²	0.5 in	0.16 in	50-1600 psi	Water	UV
Design Name	e: 19-312000)		NBCer	t# 5641	6	
Manufacturer/A	ssembler		Designa	tors		Expiration Date	
Manufacturer			UV			09/08/2026	
Design Type							
[Safety Relief Va Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config	lve] 19-312000 /Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Annulus	Gas					

Designed by: Taylor Valve Technology, Inc {TTS}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.049 in ²	0.5 in	0.09 in	50-1600 psi	Air	UV
Design Name	e: 19-312000	(Liquid)		NBC	ert # 56427		
Manufacturer/A	ssembler		Desig	nators	Ex	piration Da	te
Manufacturer			UV		09	/08/2026	
Design Type							
[Safety Relief Va Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Tay	Ive] 19-312000 (Liquater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Annulus ylor Valve Technolog	uid) Liquid Stream y, Inc {TTS}					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia	ı. Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.049 in ²	0.5 in	0.09 in	50-1600 psi	Water	UV
Design Name	e: 82-004000			NBC	ert # 56225		
Manufacturer/A	ssembler		Desig	nators	Ex	piration Da	te
Manufacturer			UV		09	/10/2024	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Tay	Ive] 82-004000 Sec. UV at National E lishing Relieving Cap I.967 SCFM/PSIA /Gas; Certified: Air, C finition: Pop acteristics: Fixed guration: Nozzle/Full ylor Valve Technolog	Board Testing L bacity: Flow Ca Bas Lift y, Inc {TTS}	ab on August 19, ⁻ pacity, Slope	1997			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.128 in ²	0.404 in	0.17 in	15-6500 psi	Air	UV
Design Name	e: 82-005000			NBC	ert # 56180		
Manufacturer/A	ssembler		Desig	nators	Ex	piration Da	te
Manufacturer			UV		06	/23/2025	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: 3 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Confir	Ive] 82-005000 Sec. UV at National E lishing Relieving Cap 3.080 SCFM/PSIA /Gas; Certified: Air, C finition: Pop acteristics: Fixed puration: Nozzle/Full	Board Testing L bacity: Flow Ca Bas	ab on June 23, 19 pacity, Slope	93			

Flow Area Configuration: Nozzle/Full Lift Designed by: Taylor Valve Technology, Inc {TTS}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5 NPS	1, 1.5 NPS	0.212 in ²	0.52 in	0.19 in	15-2500 psi	Air	UV
Design Name	: 82-006000			NBCert #	\$ 56269		
Manufacturer/As	ssembler		Designato	ors	E	piration Date	
Manufacturer			UV		09	9/10/2024	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 5 Media - Test: Air Set Pressure Def Blowdown Chara Flow Area Config Designed by: Tay	ve] 82-006000 Sec. UV at National E ishing Relieving Cap 465 SCFM/PSIA /Gas; Certified: Air, G finition: Pop cteristics: Fixed juration: Nozzle/Full /lor Valve Technology	Board Testing La bacity: Flow Cap Bas Lift 7, Inc {TTS}	ab on August 19, 1997 bacity, Slope	,			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS	1 NPS	0.357 in ²	0.674 in	0.27 in	15-2500 psi	Air	UV
Design Name	: 82-007000			NBCert #	\$ 56247		
Manufacturer/A	ssembler		Designato	ors	E	piration Date	
Manufacturer			UV		11	/13/2025	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value:14 Media - Test: Air Set Pressure Det Blowdown Chara Flow Area Config Designed by: Tay	ve] 82-007000 Sec. UV at National E ishing Relieving Cap 4.000 SCFM/PSIA /Gas; Certified: Air, G finition: Pop cteristics: Fixed uration: Nozzle/Full /lor Valve Technology	Board Testing L pacity: Flow Cap Bas Lift 7, Inc {TTS}	ab on August 19, 1997 bacity, Slope	,			
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25-2 NPS	2 NPS	0.913 in ²	1.078 in	0.41 in	15-2000 psi	Air	UV
Design Name	: 82-025000	, 82-03500	0	NBCert #	\$ 56146		
Manufacturer/As	ssembler		Designato	ors	E	xpiration Date	
Manufacturer			UV		30	3/25/2024	
Design Type [Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 3 Media - Test: Air Set Pressure Def Blowdown Chara Flow Area Config Designed by: Tay	ve] 82-025000, 82-0 Sec. UV at National E ishing Relieving Cap 240 SCFM/PSIA /Gas; Certified: Air, G finition: Pop cteristics: Fixed juration: Nozzle/Full /lor Valve Technology	035000 Board Testing L bacity: Flow Cap Bas Lift 7, Inc {TTS}	ab on July 14, 1992 bacity, Slope				

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS		0.212 in²	0.52 in	0.19 in	15-2500 psi	Air	UV
Design Name	: 82-025000	, 82-03500	0 (Liquids)	NBCert #	¥		
Manufacturer/As	ssembler		Designat	ors	Ex	piration Date	
Manufacturer			UV		08	/24/2024	
Design Type							
[Relief Valve] 82: Capacity Tests: S Method of Establ Certified Value: 5 Media - Test: Wa Set Pressure Def Blowdown Chara Flow Area Config Designed by: Tay	-025000, 82-035000 bec. UV at National B ishing Relieving Cap .290 GPM/SQ.RT. Poter iter/Liquid; Certified: inition: First Steady S cteristics: Fixed uration: Nozzle/Full I for Valve Technology	(Liquids) oard Testing La acity: Flow Cap SID Liquid Stream _ift , Inc {TTS}	ab on July 13, 1992 bacity, Flow Factor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.212 in²	0.52 in	0.19 in	15-2500 psi	Water	UV
Design Name	: 82-055000	, 82-06500	0	NBCert #	# 56168		
Manufacturer/As	ssembler		Designat	ors	Ex	piration Date	
Manufacturer			UV		08	/24/2024	
Design Type							
[Safety Relief Val Capacity Tests: S Method of Establ Certified Value: 6 Media - Test: Air/ Set Pressure Def Blowdown Chara Flow Area Config Designed by: Tay	ve] 82-055000, 82-0 acc. UV at National B ishing Relieving Cap .800 SCFM/PSIA /Gas; Certified: Air, G inition: Pop cteristics: Fixed uration: Nozzle/Full I /lor Valve Technology	065000 oard Testing La acity: Flow Cap as _ift , Inc {TTS}	ab on July 13, 1992 bacity, Slope				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25-2 NPS		0.472 in²	0.775 in	0.3 in	15-2000 psi	Air	UV
Design Name	: 82-055000	, 82-06500	0 (Liquids)	NBCert #	# 56179		
Manufacturer/As	ssembler		Designat	ors	Ex	piration Date	
Manufacturer			UV		08	/24/2024	
Design Type							
[Relief Valve] 82 Capacity Tests: S Method of Establ Certified Value:10 Media - Test: Wa Set Pressure Def Blowdown Chara Flow Area Config Designed by: Tay	-055000, 82-065000 bec. UV at National B ishing Relieving Cap 0.540 GPM/SQ.RT. F ater/Liquid; Certified: inition: First Steady S cteristics: Fixed uration: Nozzle/Full I lor Valve Technology	(Liquids) oard Testing La acity: Flow Cap SID Liquid Stream Lift y, Inc {TTS}	ab on July 14, 1992 bacity, Slope				

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
1.25-2 NPS	2 NPS	0.472 in ²	0.775 in	0.3 in	15-2000 psi	Water	UV				
Design Name: 8250 Series NBCert # 56124											
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date					
Manufacturer			UV		05	/02/2025					
Design Type											
[Safety Relief Valve] 8250 Series Capacity Tests: Sec. UV at National Board Testing Lab on December 11, 2018 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Taylor Valve Technology, Inc {TTS}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	1-2 NPS	0.062 in ²	[C] 0.281 in	0.11 in	300-10000 psi	Air	UV				
0.5-1.5 NPS	0.75-2 NPS	0.128 in ²	[D] 0.404 in	0.17 in	15-5000 psi	Air	UV				
0.75-1.5 NPS	1-2 NPS	0.212 in ²	[E] 0.52 in	0.19 in	15-3250 psi	Air	UV				
1-2 NPS	2-3 NPS	0.357 in ²	[F] 0.674 in	0.27 in	15-3000 psi	Air	UV				
1.5-2 NPS	2-3 NPS	0.472 in ²	[G] 0.775 in	0.3 in	15-2000 psi	Air	UV				
1.5-2 NPS	2-3 NPS	0.913 in ²	[H] 1.078 in	0.41 in	15-2000 psi	Air	UV				
2-3 NPS	3-4 NPS	1.431 in ²	[J] 1.35 in	0.58 in	15-2000 psi	Air	UV				
2.5-4 NPS	3-6 NPS	2.138 in ²	[K] 1.65 in	0.65 in	15-2000 psi	Air	UV				
3-4 NPS	4-6 NPS	3.205 in ²	[L] 2.02 in	0.8 in	15-2000 psi	Air	UV				
4-4 NPS	6 NPS	4.083 in ²	[M] 2.28 in	0.9 in	15-1000 psi	Air	UV				
Design Name	e: 8250 Serie	es (Liquid)		NBCert ;	# 56382						
Manufacturer/A	ssembler	_	Designat	ors	Ex	piration Date					
Manufacturer			UV		05	/07/2025					
Design Type											
Design Type [Safety Relief Valve] 8250 Series (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab {unknown test date} Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.833 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Design Type											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	1-2 NPS	0.062 in ²	[C] 0.281 in	0.11 in	300-10000 psi	Water	UV				
0.5-1.5 NPS	0.75-2 NPS	0.128 in ²	[D] 0.404 in	0.17 in	15-5000 psi	Water	UV				
0.75-1.5 NPS	1-2 NPS	0.212 in ²	[E] 0.52 in	0.19 in	15-3250 psi	Water	UV				

1-2 NPS	2-3 NPS	0.357 in ²	[F] 0.674 in	0.27 in	15-3000 psi	Water	UV		
1.5-2 NPS	2-3 NPS	0.472 in ²	[G] 0.775 in	0.3 in	15-2000 psi	Water	UV		
1.5-2 NPS	2-3 NPS	0.913 in ²	[H] 1.078 in	0.41 in	15-2000 psi	Water	UV		
2-3 NPS	3-4 NPS	1.431 in ²	[J] 1.35 in	0.58 in	15-2000 psi	Water	UV		
2.5-4 NPS	3-6 NPS	2.138 in ²	[K] 1.65 in	0.65 in	15-2000 psi	Water	UV		
3-4 NPS	4-6 NPS	3.205 in ²	[L] 2.02 in	0.8 in	15-2000 psi	Water	UV		
4-4 NPS	6 NPS	4.083 in ²	[M] 2.28 in	0.9 in	15-1000 psi	Water	UV		
Design Nam	e: 83-001000) (Air and G	as)	NBCert	# 56203				
Manufacturer/A	Assembler		Designate	ors	E	xpiration Date)		
Manufacturer			UV		30	3/04/2025			
Design Type									
[Safety Relief Valve] 83-001000 (Air and Gas) Capacity Tests: Sec. UV at National Board Testing Lab on July 27, 1993 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value:21.200 SCFM/PSIA Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Taylor Valve Technology, Inc {TTS}									
		Flow Area	Orifice	Lift	Set Pressure	Media	Designator		
Inlet Size	Outlet Size	FIOW Alea	[designator] dia.		Range		-		
Inlet Size 2.5-3 NPS	Outlet Size 3 NPS	1.431 in ²	[designator] dia. 1.35 in	0.58 in	Range 15-1500 psi	Air	UV		
Inlet Size 2.5-3 NPS Design Name	Outlet Size 3 NPS e: 83-002000	1.431 in ²) (Air and G	[designator] dia. 1.35 in GaS)	0.58 in NBCert ;	Kange 15-1500 psi # 56214	Air	UV		
Inlet Size 2.5-3 NPS Design Name Manufacturer/A	Outlet Size 3 NPS e: 83-002000 Assembler	1.431 in²) (Air and G	[designator] dia. 1.35 in Gas) Designate	0.58 in NBCert :	Kange 15-1500 psi # 56214 E:	Air xpiration Date	UV		
Inlet Size 2.5-3 NPS Design Name Manufacturer/A Manufacturer	Outlet Size 3 NPS e: 83-002000 Assembler	1.431 in²) (Air and G	[designator] dia. 1.35 in Gas) Designato UV	0.58 in NBCert : ors	Kange 15-1500 psi # 56214 E: 10	Air xpiration Date	UV		
Inlet Size 2.5-3 NPS Design Name Manufacturer/A Manufacturer Design Type	Outlet Size 3 NPS e: 83-002000 Assembler	1.431 in²) (Air and G	[designator] dia. 1.35 in GaS) Designate UV	0.58 in NBCert : ors	Kange 15-1500 psi # 56214 E: 10	Air xpiration Date	UV		
Inlet Size 2.5-3 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: Method of Estat Certified Value:2 Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Ta	Outlet Size 3 NPS e: 83-002000 Assembler alve] 83-002000 (Air Sec. UV at National B Dishing Relieving Cap 29.030 SCFM/PSIA r/Gas; Certified: Air, (C efinition: Pop acteristics: Fixed guration: Nozzle/Full ylor Valve Technolog	1.431 in ² 1.431 in ² (Air and G (Air and G and Gas) Board Testing L bacity: Flow Ca Gas Lift y, Inc {TTS}	[designator] dia. 1.35 in CaS) Designato UV .ab on October 7, 1993 pacity, Slope	0.58 in NBCert : ors	Range 15-1500 psi # 56214 E: 10	Air xpiration Date			
Inlet Size 2.5-3 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: Method of Estab Certified Value:2 Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Ta	Outlet Size 3 NPS e: 83-002000 Assembler alve] 83-002000 (Air Sec. UV at National B Dishing Relieving Cap 29.030 SCFM/PSIA r/Gas; Certified: Air, O efinition: Pop acteristics: Fixed guration: Nozzle/Full ylor Valve Technolog Outlet Size	1.431 in ²) (Air and G) (Air and G and Gas) Board Testing L bacity: Flow Ca Gas Lift y, Inc {TTS} Flow Area	[designator] dia. 1.35 in Cas) Designato UV .ab on October 7, 1993 pacity, Slope Orifice [designator] dia.	0.58 in NBCert : ors 3 Lift	Kange 15-1500 psi # 56214 E: 10 10 Set Pressure Range	Air xpiration Date D/22/2025	UV		
Inlet Size 2.5-3 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: Method of Estab Certified Value:2 Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Ta Inlet Size 2.5-3 NPS	Outlet Size 3 NPS e: 83-002000 Assembler alve] 83-002000 (Air Sec. UV at National B Dishing Relieving Cap 29.030 SCFM/PSIA r/Gas; Certified: Air, G efinition: Pop acteristics: Fixed guration: Nozzle/Full ylor Valve Technolog Outlet Size 3 NPS	1.431 in ² 1.431 in ² (Air and G (Air and G and Gas) Board Testing L bacity: Flow Ca Gas Lift y, Inc {TTS} Flow Area 2.138 in ²	[designator] dia. 1.35 in Cas) Designator UV .ab on October 7, 1993 pacity, Slope Orifice [designator] dia. 1.65 in	0.58 in NBCert : ors 3 Lift 0.65 in	Range 15-1500 psi # 56214 E: 10 10 Set Pressure Range 15-1000 psi	Air xpiration Date D/22/2025 Media Air	UV UV Designator UV		
Inlet Size 2.5-3 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Ta Inlet Size 2.5-3 NPS Design Name	Outlet Size 3 NPS e: 83-002000 Assembler alve] 83-002000 (Air Sec. UV at National B bishing Relieving Cap 29.030 SCFM/PSIA r/Gas; Certified: Air, O efinition: Pop acteristics: Fixed guration: Nozzle/Full ylor Valve Technolog Outlet Size 3 NPS e: 9300, 930	1.431 in ² 1.431 in ² (Air and G and Gas) Board Testing L bacity: Flow Ca Gas Lift y, Inc {TTS} Flow Area 2.138 in ² OM	[designator] dia. 1.35 in Cas) Designato UV ab on October 7, 1993 pacity, Slope Orifice [designator] dia. 1.65 in	0.58 in NBCert : ors Lift 0.65 in NBCert :	Kange 15-1500 psi # 56214 E: 10 10 56214 E: 10 10 10 10 10 10 10 10 10 10 10 10 10	Air xpiration Date D/22/2025 Media Air	UV UV Designator UV		
Inlet Size 2.5-3 NPS Design Name Manufacturer/A Manufacturer Design Type [Safety Relief Va Capacity Tests: Method of Estab Certified Value:2 Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Ta Inlet Size 2.5-3 NPS Design Name Manufacturer/A	Outlet Size 3 NPS e: 83-002000 Assembler alve] 83-002000 (Air Sec. UV at National B Dishing Relieving Cap 29.030 SCFM/PSIA r/Gas; Certified: Air, G efinition: Pop acteristics: Fixed guration: Nozzle/Full ylor Valve Technolog Outlet Size 3 NPS e: 9300, 9300 Assembler	1.431 in ²) (Air and G and Gas) Board Testing L bacity: Flow Ca Gas Lift y, Inc {TTS} Flow Area 2.138 in ² OM	[designator] dia. 1.35 in CaS) Designato UV ab on October 7, 1993 pacity, Slope Orifice [designator] dia. 1.65 in Designato	0.58 in NBCert : ors Lift 0.65 in NBCert :	Kange 15-1500 psi # 56214 E: 10 Set Pressure Range 15-1000 psi # 56315 E:	Air xpiration Date D/22/2025 Media Air xpiration Date	UV UV Designator UV		

[Pilot Operated Pressure Relief Valve] 9300, 9300M Capacity Tests: Sec. UV at National Board Testing Lab on April 23, 2002 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Taylor Valve Technology, Inc {TTS}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.202 in	15-3705 psi	Air	UV
1-1.5 NPS	2 NPS	0.212 in ²	[E] 0.52 in	0.26 in	15-3705 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.337 in	15-3705 psi	Air	UV
1.5-2 NPS	3 NPS	0.472 in ²	[G] 0.775 in	0.388 in	15-3705 psi	Air	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.539 in	15-3705 psi	Air	UV
2-3 NPS	3, 4 NPS	1.431 in ²	[J] 1.35 in	0.675 in	15-2000 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.825 in	15-2000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.205 in ²	[L] 2.02 in	1.01 in	15-2000 psi	Air	UV
4 NPS	6 NPS	4.083 in ²	[M] 2.28 in	1.14 in	15-2000 psi	Air	UV
4 NPS	6 NPS	4.909 in ²	[N] 2.5 in	1.25 in	15-2000 psi	Air	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.5 in	15-1480 psi	Air	UV
6 NPS	8 NPS	12.566 in ²	[Q] 4 in	2 in	15-1480 psi	Air	UV
6 NPS	8 NPS	17.721 in ²	[R] 4.75 in	2.375 in	15-1480 psi	Air	UV
8 NPS	10 NPS	25.967 in ²	[T] 5.75 in	2.875 in	15-1480 psi	Air	UV

Design Name: Manufacturer/Assembler Designators Expiration Date Manufacturer UV 02/13/2025 Design Type [Pilot Operated Pressure Relief Valve] 9300FB Capacity Tests: Sec. UV at National Board Testing Lab on July 31, 2002 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.774 Unitless Media - Test: Air/Gas; Certified: Air, Gas Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Taylor Valve Technology, Inc {TTS} Orifice Set Pressure Inlat Si Outlot Si 1 :64 Modia

Inlet Size	Outlet Size	Flow Area	[designator] dia.	LIIT	Range	Media	Designator
1.5 NPS	2, 3 NPS	1.767 in²	1.5 in	0.75 in	15-2000 psi	Air	UV
2 NPS	3 NPS	2.953 in ²	1.939 in	0.97 in	15-2000 psi	Air	UV
3 NPS	4 NPS	6.605 in ²	2.9 in	1.45 in	15-1480 psi	Air	UV
4 NPS	6 NPS	11.491 in²	3.825 in	1.915 in	15-1480 psi	Air	UV
6 NPS	8 NPS	26.067 in ²	5.761 in	2.88 in	15-1480 psi	Air	UV
8 NPS	10 NPS	45.664 in ²	7.625 in	3.812 in	15-1480 psi	Air	UV

Design Name [.]	Model C-	Rupture F	hin Relief	Valv
Doorgin name.		i taptaro i		

Design Nam	e: Model C- I	Rupture Pir	Relief Valve	NBCert	# 56630				
Manufacturer/Assembler				ators	E	Expiration Date			
Manufacturer			UD		1	1/14/2024			
Design Type									
[Buckling Pin Non-reclosing Device] Model C- Rupture Pin Relief Valve Capacity Tests: Sec. UD at National Board Testing Lab on October 16, 2013 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.712 Unitless Media - Test: Air/Gas; Certified: Air/Gas Set Pressure Definition: Buckling Pressure Flow Area Configuration: Nozzle/Full Lift Designed by: Taylor Valve Technology, Inc {TTS}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1.5 NPS	1.5, 2 NPS	1.77 in ²	1.5 in	0.85 in	15-1480 psi	Air	UD		
2 NPS	2, 3 NPS	2.95 in ²	1.94 in	0.9 in	15-1480 psi	Air	UD		
3 NPS	3, 4 NPS	6.6 in ²	2.9 in	1.48 in	15-1480 psi	Air	UD		
4 NPS	4, 6 NPS	11.49 in²	3.826 in	1.71 in	15-1480 psi	Air	UD		
6 NPS	6, 8 NPS	26.05 in ²	5.761 in	2.19 in	15-1480 psi	Air	UD		
8 NPS	8, 10 NPS	45.64 in ²	7.625 in	2.66 in	15-1480 psi	Air	UD		
10 NPS	10, 12 NPS	74.62 in ²	9.75 in	3.19 in	15-1480 psi	Air	UD		
12 NPS	12, 14 NPS	108.38 in²	11.75 in	3.69 in	15-1480 psi	Air	UD		
14 NPS	14, 16 NPS	132.67 in ²	13 in	4 in	15-740 psi	Air	UD		
16 NPS	16, 18 NPS	176.63 in ²	15 in	4.5 in	15-740 psi	Air	UD		
18 NPS	18, 20 NPS	226.87 in ²	17 in	5 in	15-740 psi	Air	UD		
20 NPS	20, 24 NPS	283.39 in ²	19 in	5.5 in	15-285 psi	Air	UD		
24 NPS	24, 30 NPS	415.27 in ²	23 in	6.5 in	15-285 psi	Air	UD		
30 NPS	30, 36 NPS	660.19 in ²	29 in	8 in	15-285 psi	Air	UD		
Design Nam	e: Model C- I	Rupture Pir	n Relief Valve (L	.iquid) NBCert	# 56641				
Manufacturer/A	Assembler		Designa	ators	E	xpiration Date	9		
Manufacturer			UD		1	1/14/2024			
Design Type [Buckling Pin Non-reclosing Device] Model C- Rupture Pin Relief Valve (Liquid) Capacity Tests: Sec. UD at National Board Testing Lab on October 15, 2013 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.595 Unitless Media - ; Certified: Liquid Set Pressure Definition: Buckling Pressure Flow Area Configuration: Nozzle/Full Lift Designed by: Taylor Valve Technology, Inc {TTS}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1.5 NPS	1.5, 2 NPS	1.77 in²	1.5 in	0.85 in	15-1480 psi	Water	UD		
2 NPS	2, 3 NPS	2.95 in ²	1.94 in	0.9 in	15-1480 psi	Water	UD		
3 NPS	3, 4 NPS	6.6 in ²	2.9 in	1.48 in	15-1480 psi	Water	UD		

4 NPS	4, 6 NPS	11.49 in ²	3.826 in	1.71 in	15-1480 psi	Water	UD
6 NPS	6, 8 NPS	26.05 in ²	5.761 in	2.19 in	15-1480 psi	Water	UD
8 NPS	8, 10 NPS	45.64 in ²	7.625 in	2.66 in	15-1480 psi	Water	UD
10 NPS	10, 12 NPS	74.62 in ²	9.75 in	3.19 in	15-1480 psi	Water	UD
12 NPS	12, 14 NPS	108.38 in ²	11.75 in	3.69 in	15-1480 psi	Water	UD
14 NPS	14, 16 NPS	132.67 in ²	13 in	4 in	15-740 psi	Water	UD
16 NPS	16, 18 NPS	176.63 in ²	15 in	4.5 in	15-740 psi	Water	UD
18 NPS	18, 20 NPS	226.87 in ²	17 in	5 in	15-740 psi	Water	UD
20 NPS	20, 24 NPS	283.39 in ²	19 in	5.5 in	15-285 psi	Water	UD
24 NPS	24, 30 NPS	415.27 in ²	23 in	6.5 in	15-285 psi	Water	UD
30 NPS	30, 36 NPS	660.19 in ²	29 in	8 in	15-285 psi	Water	UD

Team Industrial Services, Inc (FTO)

Long Beach, CA 90805United States

This Company Manufactures or Assembles:

Design Name	e: 78 (Pilot O	perated)		NBCert #	44053	3				
Manufacturer/A	ssembler		Designato	ors	E	Expiration Date	_			
Assembler			UV		C	6/30/2027				
Design Type										
[Pilot Operated Pressure Relief Valve] 78 (Pilot Operated) Capacity Tests: Sec. UV at National Board Testing Lab on August 5, 1999 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: TRILLIUM Flow Technologies - France SAS {SAR}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 NPS	0.124 in ²	[D] 0.398 in	0.53 in	26.1-6250 psi	Air	UV			
1-1.5 NPS	2 NPS	0.124 in ²	[D] 0.398 in	0.53 in	29-740 psi	Steam	UV			
1-1.5 NPS	2 NPS	0.222 in ²	[E] 0.531 in	0.53 in	26.1-6250 psi	Air	UV			
1-1.5 NPS	2 NPS	0.222 in ²	[E] 0.531 in	0.53 in	29-740 psi	Steam	UV			
1-1.5 NPS	2 NPS	0.352 in ²	[F] 0.669 in	0.53 in	26.1-6250 psi	Air	UV			
1-1.5 NPS	2 NPS	0.352 in ²	[F] 0.669 in	0.53 in	29-740 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.568 in ²	[G] 0.85 in	0.7 in	26.1-6250 psi	Air	UV			
1.5-2 NPS	3 NPS	0.568 in ²	[G] 0.85 in	0.7 in	29-740 psi	Steam	UV			
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.7 in	26.1-6250 psi	Air	UV			
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.7 in	29-740 psi	Steam	UV			
2-3 NPS	3,4 NPS	1.457 in²	[J] 1.362 in	0.8 in	26.1-6250 psi	Air	UV			
2-3 NPS	3,4 NPS	1.457 in ²	[J] 1.362 in	0.8 in	29-740 psi	Steam	UV			

Nameplate Abbreviation: D.K Amans Valve

3 NPS	4 NPS	2.097 in ²	[K] 1.634 in	1.18 in	26.1-3750 psi	Air	UV
3 NPS	4 NPS	2.097 in ²	[K] 1.634 in	1.18 in	29-740 psi	Steam	UV
3-4 NPS	4,6 NPS	3.229 in ²	[L] 2.028 in	1.18 in	26.1-3750 psi	Air	UV
3-4 NPS	4,6 NPS	3.229 in ²	[L] 2.028 in	1.18 in	29-740 psi	Steam	UV
4 NPS	6 NPS	4.095 in ²	[M] 2.284 in	1.57 in	26.1-3750 psi	Air	UV
4 NPS	6 NPS	4.095 in ²	[M] 2.284 in	1.57 in	29-740 psi	Steam	UV
4 NPS	6 NPS	5.143 in ²	[N] 2.559 in	1.57 in	26.1-3750 psi	Air	UV
4 NPS	6 NPS	5.143 in ²	[N] 2.559 in	1.57 in	29-740 psi	Steam	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.57 in	26.1-3750 psi	Air	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.57 in	29-740 psi	Steam	UV
6 NPS	8 NPS	12.915 in ²	[Q] 4.055 in	2.16 in	26.1-3750 psi	Air	UV
6 NPS	8 NPS	12.915 in ²	[Q] 4.055 in	2.16 in	29-740 psi	Steam	UV
6 NPS	8 NPS	15.904 in²	[R] 4.5 in	2.16 in	26.1-1500 psi	Air	UV
6 NPS	8 NPS	15.904 in²	[R] 4.5 in	2.16 in	29-740 psi	Steam	UV
8-8 NPS	10 NPS	28.274 in²	[T] 6 in	2.99 in	26.1-1500 psi	Air	UV
8-8 NPS	10 NPS	28.274 in ²	[T] 6 in	2.99 in	29-740 psi	Steam	UV
Design Nam	e: 78 (Pilot C	perated, Li	quid)	NBCert	# 44064		
Manufacturer/A	Assembler		Designate	ors	E	piration Date	,
Assembler			UV		06	6/30/2027	
Design Type							
Design Type [Pilot Operated I Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF	Pressure Relief Valve Sec. UV, V at Nationa blishing Relieving Cap 0.857 Unitless /ater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno	e] 78 (Pilot Op al Board Testin bacity: Flow Ca Liquid Stream Lift blogies - France	erated, Liquid) g Lab on August 6, 199 pacity, K e SAS {SAR}	99			
Design Type [Pilot Operated I Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size	Pressure Relief Valve Sec. UV, V at Nationa blishing Relieving Cap 0.857 Unitless Vater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno Outlet Size	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca : Liquid Stream Lift blogies - France Flow Area	erated, Liquid) g Lab on August 6, 199 pacity, K e SAS {SAR} Orifice [designator] dia.	99 Lift	Set Pressure Range	Media	Designator
Design Type [Pilot Operated I Capacity Tests: Method of Estate Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size 1-1.5 NPS	Pressure Relief Valve Sec. UV, V at Nationa blishing Relieving Cap 0.857 Unitless (ater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno Outlet Size 2 NPS	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca : Liquid Stream Lift blogies - France Flow Area 0.124 in ²	erated, Liquid) g Lab on August 6, 199 upacity, K e SAS {SAR} Orifice [designator] dia. [D] 0.398 in	99 Lift 0.53 in	Set Pressure Range 26.1-6250 psi	Media Water	Designator
Design Type [Pilot Operated I Capacity Tests: Method of Estate Certified Value: Media - Test: W Set Pressure Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS	Pressure Relief Valve Sec. UV, V at Nationa blishing Relieving Cap 0.857 Unitless /ater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno Outlet Size 2 NPS 2 NPS	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca Liquid Stream Lift blogies - France Flow Area 0.124 in ² 0.222 in ²	erated, Liquid) g Lab on August 6, 199 pacity, K e SAS {SAR} Orifice [designator] dia. [D] 0.398 in [E] 0.531 in	09 Lift 0.53 in 0.53 in	Set Pressure Range 26.1-6250 psi 26.1-6250 psi	Media Water Water	Designator UV UV
Design Type [Pilot Operated I Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Pressure Relief Valve Sec. UV, V at Nationa olishing Relieving Cap 0.857 Unitless /ater/Liquid; Certified: ofinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno Outlet Size 2 NPS 2 NPS 2 NPS	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca : Liquid Stream Lift blogies - France Flow Area 0.124 in ² 0.222 in ² 0.352 in ²	erated, Liquid) g Lab on August 6, 199 apacity, K e SAS {SAR} Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.669 in	09 Lift 0.53 in 0.53 in 0.53 in	Set Pressure Range 26.1-6250 psi 26.1-6250 psi 26.1-6250 psi	Media Water Water Water	Designator UV UV UV
Design Type [Pilot Operated I Capacity Tests: Method of Estab Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS	Pressure Relief Valve Sec. UV, V at Nationa blishing Relieving Cap 0.857 Unitless dater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca Liquid Stream Lift blogies - France Flow Area 0.124 in ² 0.222 in ² 0.352 in ² 0.568 in ²	erated, Liquid) g Lab on August 6, 199 pacity, K e SAS {SAR} Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.669 in [G] 0.85 in	299 Lift 0.53 in 0.53 in 0.53 in 0.53 in	Set Pressure Range 26.1-6250 psi 26.1-6250 psi 26.1-6250 psi 26.1-6250 psi 26.1-6250 psi	Media Water Water Water Water Water	Designator UV UV UV UV
Design Type [Pilot Operated I Capacity Tests: Method of Estate Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS	Pressure Relief Valve Sec. UV, V at Nationa blishing Relieving Cap 0.857 Unitless 'ater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca Liquid Stream Lift blogies - France Flow Area 0.124 in ² 0.222 in ² 0.352 in ² 0.568 in ² 0.887 in ²	erated, Liquid) g Lab on August 6, 199 pacity, K e SAS {SAR} Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.669 in [G] 0.85 in [H] 1.063 in	29 Lift 0.53 in 0.53 in 0.53 in 0.7 in 0.7 in	Set Pressure Range 26.1-6250 psi 26.1-6250 psi 26.1-6250 psi 26.1-6250 psi 26.1-6250 psi 26.1-6250 psi	Media Water Water Water Water Water Water	Designator UV UV UV UV UV
Design Type [Pilot Operated I Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS 1-5.2 NPS 1.5-2 NPS 2-3 NPS	Pressure Relief Valve Sec. UV, V at Nationa olishing Relieving Cap 0.857 Unitless 'ater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Technol Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3, 4 NPS	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca Liquid Stream Lift blogies - France Flow Area 0.124 in ² 0.222 in ² 0.352 in ² 0.568 in ² 0.887 in ²	erated, Liquid) g Lab on August 6, 199 pacity, K Crifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.669 in [G] 0.85 in [G] 1.362 in	299 Lift 0.53 in 0.53 in 0.53 in 0.7 in 0.7 in 0.7 in 0.8 in	Set Pressure Range 26.1-6250 psi	Media Water Water Water Water Water Water Water	Designator UV
Design Type [Pilot Operated I Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS 1-5.2 NPS 1.5-2 NPS 2-3 NPS 3 NPS	Pressure Relief Valve Sec. UV, V at Nationa Jishing Relieving Cap 0.857 Unitless Vater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca Stream Lift blogies - France Flow Area 0.124 in ² 0.222 in ² 0.352 in ² 0.568 in ² 0.887 in ² 1.457 in ² 2.097 in ²	erated, Liquid) g Lab on August 6, 199 pacity, K Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.669 in [G] 0.85 in [H] 1.063 in [J] 1.362 in [K] 1.634 in	299 Lift 0.53 in 0.53 in 0.53 in 0.53 in 0.7 in 0.7 in 0.7 in 0.8 in	Set Pressure 26.1-6250 psi	Media Water Water Water Water Water Water Water Water	Designator UV
Design Type [Pilot Operated I Capacity Tests: Method of Estable Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS 1-5.2 NPS 1.5-2 NPS 2-3 NPS 3-4 NPS	Pressure Relief Valve Sec. UV, V at Nationa blishing Relieving Cap 0.857 Unitless dater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4 NPS 4, 6 NPS	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca Stream Lift blogies - France Flow Area 0.124 in ² 0.222 in ² 0.352 in ² 0.568 in ² 0.887 in ² 1.457 in ² 2.097 in ² 3.229 in ²	erated, Liquid) g Lab on August 6, 199 pacity, K Crifice [designator] dia. [D] 0.398 in [E] 0.531 in [E] 0.669 in [G] 0.85 in [H] 1.063 in [J] 1.362 in [J] 1.362 in [L] 2.028 in	299 Lift 0.53 in 0.53 in 0.53 in 0.53 in 0.7 in 0.7 in 0.8 in 1.18 in 1.18 in	Set Pressure Range Image 26.1-6250 psi 26 26.1-3750 psi 26	Media Water Water Water Water Water Water Water Water Water	Designator UV
Design Type [Pilot Operated I Capacity Tests: Method of Estate Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS 1-5.2 NPS 1.5-2 NPS 2-3 NPS 3-4 NPS 4 NPS	Pressure Relief Valve Sec. UV, V at Nationa olishing Relieving Cap 0.857 Unitless fater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Technol Outlet Size 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4 NPS 4 NPS 4, 6 NPS	e] 78 (Pilot Ope al Board Testin bacity: Flow Ca Liquid Stream Lift blogies - France Flow Area 0.124 in ² 0.222 in ² 0.352 in ² 0.358 in ² 0.887 in ² 1.457 in ² 2.097 in ² 3.229 in ² 4.095 in ²	erated, Liquid) g Lab on August 6, 199 pacity, K Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.669 in [G] 0.85 in [H] 1.063 in [J] 1.362 in [K] 1.634 in [L] 2.028 in	299 Lift 0.53 in 0.53 in 0.53 in 0.53 in 0.7 in 0.7 in 0.8 in 1.18 in 1.18 in 1.57 in	Set Pressure 26.1-6250 psi 26.1-3750 psi 26.1-3750 psi 26.1-3750 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV UV UV UV UV UV UV UV UV UV UV
Design Type [Pilot Operated I Capacity Tests: Method of Estate Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 2-3 NPS 3-4 NPS 4 NPS 4 NPS	Pressure Relief Valve Sec. UV, V at Nationa olishing Relieving Cap 0.857 Unitless 'ater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Technol 2 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4 NPS 4 NPS 4 NPS 6 NPS 6 NPS	 P. 78 (Pilot Operation of the second secon	erated, Liquid) g Lab on August 6, 198 pacity, K Crifice [designator] dia. [D] 0.398 in [E] 0.531 in [F] 0.669 in [F] 0.669 in [G] 0.85 in [H] 1.063 in [J] 1.362 in [L] 2.028 in [L] 2.028 in [M] 2.283 in	29 Lift 0.53 in 0.53 in 0.53 in 0.53 in 0.7 in 0.7 in 0.7 in 1.18 in 1.18 in 1.57 in 1.57 in	Set Pressure 26.1-6250 psi 26.1-3750 psi 26.1-3750 psi 26.1-3750 psi	Media Water Water Water Water Water Water Water Water Water Water	Designator UV UV
Design Type [Pilot Operated I Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Flow Area Confii Designed by: TF Inlet Size 1-1.5 NPS 1-1.5 NPS 1-5.2 NPS 1.5-2 NPS 2-3 NPS 3-4 NPS 4 NPS 4 NPS 4 NPS	Pressure Relief Valve Sec. UV, V at Nationa Jishing Relieving Cap 0.857 Unitless dater/Liquid; Certified: efinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno Outlet Size 2 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4, 6 NPS 6 NPS 6 NPS 6 NPS	 P. 78 (Pilot Operation of the second restine of the secon	erated, Liquid) g Lab on August 6, 199 pacity, K Orifice [designator] dia. [D] 0.398 in [E] 0.531 in [E] 0.669 in [G] 0.85 in [H] 1.063 in [H] 1.063 in [J] 1.362 in [H] 1.362 in [H] 1.2529 in [M] 2.283 in [M] 2.259 in	299 Lift 0.53 in 0.53 in 0.53 in 0.53 in 0.7 in 0.7 in 0.7 in 1.18 in 1.18 in 1.18 in 1.57 in 1.57 in 1.57 in	Set Pressure 26.1-6250 psi 26.1-3750 psi 26.1-3750 psi 26.1-3750 psi 26.1-3750 psi 26.1-3750 psi	Media Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV
Design Type[Pilot Operated I Capacity Tests: Method of Estable Certified Value: Media - Test: W Set Pressure De Flow Area Confi Designed by: TFInlet Size1-1.5 NPS1-1.5 NPS1-1.5 NPS1-5.2 NPS1.5-2 NPS2-3 NPS3 NPS3-4 NPS4 NPS4 NPS6 NPS	Pressure Relief Valve Sec. UV, V at Nationa olishing Relieving Cap 0.857 Unitless deter/Liquid; Certified: effinition: First Steady guration: Nozzle/Full RILLIUM Flow Techno 2 NPS 2 NPS 2 NPS 2 NPS 3 NPS 3 NPS 3 NPS 3 NPS 3, 4 NPS 4 NPS 4 NPS 6 NPS 6 NPS 6 NPS 6 NPS 8 NPS	 P. 78 (Pilot Ope al Board Testin bacity: Flow Car Stream Lift Dogies - France Flow Area 0.124 in² 0.222 in² 0.352 in² 0.568 in² 0.887 in² 1.457 in² 2.097 in² 3.229 in² 4.095 in² 5.143 in² 7.069 in² 12.915 in² 	erated, Liquid) g Lab on August 6, 199 pacity, K Crifice [designator] dia. [D] 0.398 in [E] 0.531 in [E] 0.531 in [F] 0.669 in [F] 0.669 in [H] 1.063 in [J] 1.362 in [J] 1.362 in [J] 1.362 in [J] 1.362 in [J] 1.363 in	209 Lift 0.53 in 0.53 in 0.53 in 0.53 in 0.53 in 0.7 in 0.7 in 0.7 in 1.18 in 1.18 in 1.18 in 1.57 in 1.57 in 2.16 in	Set Pressure 26.1-6250 psi 26.1-3750 psi 26.1-3750 psi 26.1-3750 psi 26.1-3750 psi 26.1-3750 psi 26.1-3750 psi	Media Water Water Water Water Water Water Water Water Water Water Water Water	Designator UV UV

8 NPS	10 NPS	28.274 in ²	[T] 6 in	2.99 in	26.1-1500 psi	Water	UV		
Design Name	e: 9 Series			NBCert	# 44019				
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date			
Assembler			UV		0	6/30/2027			
Design Type									
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: (Media - Test: Ain Set Pressure De Blowdown Chara Flow Area Config Designed by: Th	Ive] 9 Series Sec. UV at National I lishing Relieving Cap 0.823 Unitless r/Gas; Certified: Air, (finition: Initial Audible acteristics: Adjustable guration: Nozzle/Full RILLIUM Flow Techno	Board Testing L bacity: Flow Ca Gas, Steam e Discharge e (Single Ring) Lift blogies - France	ab on July 24, 1997 pacity, K e SAS {SAR}						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-0.75 NPS	0.5, 1 NPS	0.0438 in ²	0.236 in	0.07 in	15-4700 psi	Air	UV		
0.5-0.75 NPS	0.5, 1 NPS	0.0438 in ²	0.236 in	0.07 in	15-2900 psi	Steam	UV		
0.5-1 NPS	1 NPS	0.124 in ²	0.398 in	0.1 in	14.5-2900 psi	Steam	UV		
0.5-1 NPS	1 NPS	0.124 in ²	0.398 in	0.1 in	14.5-4700 psi	Air	UV		
0.75-1 NPS	1 NPS	0.222 in ²	0.531 in	0.13 in	14.5-2220 psi	Air	UV		
0.75-1 NPS	1 NPS	0.222 in ²	0.531 in	0.13 in	14.5-2220 psi	Steam	UV		
1-1.5 NPS	1.5 NPS	0.352 in ²	0.669 in	0.17 in	14.5-740 psi	Air	UV		
1-1.5 NPS	1.5 NPS	0.352 in²	0.669 in	0.17 in	14.5-740 psi	Steam	UV		
1-1.5 NPS	1.5 NPS	0.568 in²	0.85 in	0.21 in	14.5-285 psi	Air	UV		
1-1.5 NPS	1.5 NPS	0.568 in ²	0.85 in	0.21 in	14.5-285 psi	Steam	UV		
Design Name	e: P3, P4 (liq	uids)		NBCert	# 92012				
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date			
Assembler			UV		0	6/30/2027			
Design Type									
[Relief Valve] P3, P4 (liquids) Capacity Tests: Sec. UV, V at National Board Testing Lab on December 7, 1993 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.631 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: TBILLI II M Elow Technologies - Erance SAS (SAR)									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS		0.134 in²	[D] 0.413 in	0.128 in	15-10000 psi	Water	UV		
1-1.5 NPS		0.273 in ²	[E] 0.59 in	0.183 in	15-7500 psi	Water	UV		
1.5 NPS		0.373 in ²	[F] 0.689 in	0.214 in	15-6000 psi	Water	UV		
1.5-2 NPS		0.589 in ²	[G] 0.866 in	0.268 in	15-6000 psi	Water	UV		
1.5-2 NPS		0.881 in ²	[H] 1.059 in	0.328 in	15-5000 psi	Water	UV		

2-3 NPS	1.457 in ²	[J] 1.362 in	0.422 in	15-3200 psi	Water	UV
3 NPS	2.097 in ²	[K] 1.634 in	0.506 in	15-3200 psi	Water	UV
3-4 NPS	3.284 in ²	[L] 2.045 in	0.634 in	15-2000 psi	Water	UV
4 NPS	4.093 in ²	[M] 2.283 in	0.708 in	15-2000 psi	Water	UV
4 NPS	4.987 in ²	[N] 2.52 in	0.781 in	15-1300 psi	Water	UV
4 NPS	7.032 in ²	[P] 2.992 in	0.94 in	15-1300 psi	Water	UV
6 NPS	12.914 in²	[Q] 4.055 in	1.257 in	15-1000 psi	Water	UV
6 NPS	15.267 in ²	[R] 4.409 in	1.477 in	15-500 psi	Water	UV
8 NPS	28.126 in ²	[T] 5.984 in	1.88 in	15-500 psi	Water	UV

Design Name: P3, P4, P5	NBCert # 920	01
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/30/2027

Design Type

[Safety Relief Valve] P3, P4, P5 Capacity Tests: Sec. UV at unknown lab on June 5, 1986 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.876 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: TRILLIUM Flow Technologies - France SAS {SAR}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS		0.134 in²	[D] 0.413 in	0.128 in	15-10000 psi	Air	UV
1-1.5 NPS		0.134 in ²	[D] 0.413 in	0.128 in	15-2900 psi	Steam	UV
1-1.5 NPS		0.273 in ²	[E] 0.59 in	0.183 in	15-2900 psi	Steam	UV
1-1.5 NPS		0.273 in ²	[E] 0.59 in	0.183 in	15-7500 psi	Air	UV
1.5 NPS		0.373 in²	[F] 0.689 in	0.214 in	15-2900 psi	Steam	UV
1.5 NPS		0.373 in²	[F] 0.689 in	0.214 in	15-6000 psi	Air	UV
1.5-2 NPS		0.589 in²	[G] 0.866 in	0.268 in	15-2900 psi	Steam	UV
1.5-2 NPS		0.589 in²	[G] 0.866 in	0.268 in	15-6000 psi	Air	UV
1.5-2 NPS		0.881 in²	[H] 1.059 in	0.328 in	15-2900 psi	Steam	UV
1.5-2 NPS		0.881 in²	[H] 1.059 in	0.328 in	15-5000 psi	Air	UV
2 NPS		1.457 in²	[J] 1.362 in	0.422 in	15-2900 psi	Steam	UV
2 NPS		1.457 in²	[J] 1.362 in	0.422 in	15-3200 psi	Air	UV
3 NPS		2.097 in ²	[K] 1.634 in	0.506 in	15-2900 psi	Steam	UV
3 NPS		2.097 in ²	[K] 1.634 in	0.506 in	15-3200 psi	Air	UV
3 NPS		3.284 in ²	[L] 2.045 in	0.634 in	15-2000 psi	Air	UV
3 NPS		3.284 in ²	[L] 2.045 in	0.634 in	15-2000 psi	Steam	UV
4 NPS		4.093 in ²	[M] 2.283 in	0.708 in	15-2000 psi	Air	UV
4 NPS		4.093 in ²	[M] 2.283 in	0.708 in	15-2000 psi	Steam	UV
4 NPS		4.987 in ²	[N] 2.52 in	0.781 in	15-1300 psi	Air	UV
4 NPS		4.987 in ²	[N] 2.52 in	0.781 in	15-1300 psi	Steam	UV

4 NPS		7.215 in ²	[P] 3.031 in	0.94 in	15-1300 psi	Air	UV	
4 NPS		7.215 in ²	[P] 3.031 in	0.94 in	15-1300 psi	Steam	UV	
6 NPS		12.914 in ²	[Q] 4.055 in	1.257 in	15-1000 psi	Air	UV	
6 NPS		12.914 in ²	[Q] 4.055 in	1.257 in	15-1000 psi	Steam	UV	
6 NPS		17.818 in²	[R] 4.763 in	1.477 in	15-700 psi	Air	UV	
6 NPS		17.818 in²	[R] 4.763 in	1.477 in	15-700 psi	Steam	UV	
8 NPS		28.871 in²	[T] 6.063 in	1.88 in	15-600 psi	Air	UV	
8 NPS		28.871 in²	[T] 6.063 in	1.88 in	15-600 psi	Steam	UV	
10 NPS		46.759 in²	[V] 7.716 in	2.392 in	15-450 psi	Air	UV	
10 NPS		46.759 in ²	[V] 7.716 in	2.392 in	15-450 psi	Steam	UV	
12 NPS		70.108 in ²	[W] 9.448 in	2.93 in	15-450 psi	Air	UV	
12 NPS		70.108 in ²	[W] 9.448 in	2.93 in	15-450 psi	Steam	UV	
Design Nam	e: STARFLC	W-V (Rest	ricted Lift)	NBCert	# 44121			
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	•	
Assembler			V		00	6/30/2027		
Design Type								
Capacity Tests: Sec. UV, V at National Board Testing Lab on April 27, 2017 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.876 Unitless Media - Test: Steam; Certified: Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Restricted Lift Designed by: TRILLIUM Flow Technologies - France SAS {SAR}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1.5 NPS	2, 3 NPS	0.373 in ²	[F] 0.689 in	0.095 in	30-2250 psi	Steam	UV, V	
1.5-2 NPS	3 NPS	0.589 in ²	[G] 0.8661 in	0.119 in	30-2250 psi	Steam	UV, V	
1.5-2 NPS	3 NPS	0.996 in ²	[H] 1.126 in	0.155 in	30-2250 psi	Steam	UV, V	
3 NPS	4 NPS	1.457 in ²	[J] 1.3622 in	0.187 in	30-2250 psi	Steam	UV, V	
3 NPS	4, 6 NPS	1.667 in ²	[K] 1.457 in	0.2 in	30-2250 psi	Steam	UV, V	
4 NPS	6 NPS	2.758 in ²	[L] 1.874 in	0.258 in	30-2250 psi	Steam	UV, V	
4 NPS	6 NPS	3.983 in ²	[M] 2.252 in	0.31 in	30-2250 psi	Steam	UV, V	
4 NPS	6 NPS	5.303 in ²	[N] 2.5984 in	0.357 in	30-2250 psi	Steam	UV, V	
4 NPS	6 NPS	7.069 in ²	[P] 3 in	0.413 in	30-2250 psi	Steam	UV, V	
6 NPS	8 NPS	10.148 in ²	[Q] 3.594 in	0.496 in	30-1494 psi	Steam	UV, V	
6 NPS	8, 10 NPS	14.173 in ²	[R] 4.248 in	0.584 in	30-1494 psi	Steam	UV, V	
		23 997 in ²	[T] 5 528 in	0.76 in	30-740 psi	Steam		

30-740 psi

30-740 psi

0.963 in

1.155 in

14 NPS

2x12 NPS

[V] 7 in

[W] 8.402 in

38.485 in²

55.438 in²

10 NPS

12 NPS

UV, V

UV, V

Steam

Steam
TRANSWATER API SDN. BHD. (TRW)

Kuantan, Pahang, 25200Malaysia

Design Name:

Assembler

Inlet Size

0.5-1 NPS

Design Type

Manufacturer/Assembler

Certified Value: 0.661 Unitless

Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

This Company Manufactures or Assembles:

[Relief Valve] 900 Series (Liquid), 7700, SNC

Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream

Outlet Size

.5 - 1 NPS

Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 9, 1990

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Flow Area

0.0551 in²

Method of Establishing Relieving Capacity: Flow Capacity, K

0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	UV, V
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	NV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	UV, V
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	NV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	UV, V
1-1.5 NPS	1.5 - 2 NPS	0.2951 in²	0.613 in	0.265 in	15-5000 psi	Water	UV, V
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	NV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV, V
1.5 NPS	2.5 NPS	0.5674 in²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	NV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV, V
Unified Val	ve Group Ltd	(UNI)				Na	meplate Abbreviation: UVGL
Calgary, AB T1Y	7C1Canada						
This Company	y Manufactures o	or Assemble	9S:				
Dooign Nome	150/462				4 2714	ი	
	<i>.</i> 439/402				+ 3711.	۷	
Manufacturer/A	ssembler		Designato	ors		Expiration Date	
Assembler			UV		(09/28/2024	
							Page 469 of 518
							-

Lift

0.074 in

Designators

UV

Orifice

[designator] dia.

[#10] 0.265 in

Expiration Date

Media

Water

Designator

NV

10/27/2027

Set Pressure

15-10000 psi

Range

[Safety Relief Valve] 459/462 Capacity Tests: Sec. UV at National Board Testing Lab on February 17, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.811 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: LESER GmbH & Co. KG {LES} Orifice Set Pressure Inlet Size **Outlet Size** Flow Area Lift Media Designator [designator] dia. Range 0.5-1.8125 1-2 NPS 0.0438 in² 0.236 in 0.043 in 15-13780 psi Air UV NPS 0.5-1.8125 1-2 NPS 0.0438 in² UV 0.236 in 0.043 in 15-2900 psi Steam NPS 0.5-1.5 NPS 1-1.5 NPS 0.0986 in² 0.354 in 0.08 in 15-2068 psi Steam UV 0.5-1.5 NPS 1-1.5 NPS 0.0986 in² 0.354 in 0.08 in 15-6175 psi Air UV 0.206 in² UV 0.75-1.5 NPS 1-1.5 NPS 0.512 in 0.118 in 15-1965 psi Steam UV 0.75-1.5 NPS 1-1.5 NPS 0.206 in² 0.512 in 0.118 in 15-2940 psi Air 1-2 NPS 1.5 - 2 NPS 0.373 in² 0.689 in 0.159 in 15-1470 psi Air UV

0.689 in

Design Name: 459/462 liquids	NBCert # 371	01
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/28/2024

0.159 in

15-1470 psi

Steam

UV

Design Type

1-2 NPS

1.5 - 2 NPS

[Relief Valve] 459/462 liquids Capacity Tests: Sec. UV at National Board Testing Lab on January 29, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.566 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: LESER GmbH & Co. KG {LES}

0.373 in²

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.8125 NPS	1-2 NPS	0.0438 in²	0.236 in	0.043 in	15-13780 psi	Water	UV
0.5-1.5 NPS	1-1.5 NPS	0.0986 in ²	0.354 in	0.08 in	15-6175 psi	Water	UV
0.75-1.5 NPS	1-1.5 NPS	0.206 in ²	0.512 in	0.118 in	15-2940 psi	Water	UV
1-2 NPS	1.5-2 NPS	0.373 in ²	0.689 in	0.159 in	15-1470 psi	Water	UV

 Design Name:
 526
 NBCert # 37224

 Manufacturer/Assembler
 Designators
 Expiration Date

 Assembler
 UV
 09/28/2024

[Safety Relief Valve] 526 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 22, 2001 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.801 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift

Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-2900 psi	Steam	UV
1-1.5 NPS	2,3 NPS	0.239 in ²	[E] 0.551 in	0.138 in	15-6000 psi	Air	UV
1.5-1.5 NPS	2,3 NPS	0.394 in ²	[F] 0.709 in	0.217 in	15-2900 psi	Steam	UV
1.5-1.5 NPS	2,3 NPS	0.394 in ²	[F] 0.709 in	0.217 in	15-5000 psi	Air	UV
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.886 in	0.268 in	15-3705 psi	Air	UV
1.5-2 NPS	3 NPS	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Air	UV
1.5-2 NPS	3 NPS	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Steam	UV
2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-2900 psi	Steam	UV
2-3 NPS	3,4 NPS	1.578 in ²	[J] 1.417 in	0.453 in	15-4134 psi	Air	UV
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-2900 psi	Steam	UV
3 NPS	4,6 NPS	2.251 in ²	[K] 1.693 in	0.532 in	15-3700 psi	Air	UV
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Air	UV
3-4 NPS	4,6 NPS	3.484 in ²	[L] 2.106 in	0.669 in	15-1830 psi	Steam	UV
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Air	UV
4 NPS	6 NPS	4.426 in ²	[M] 2.374 in	0.768 in	15-1100 psi	Steam	UV
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Air	UV
4 NPS	6 NPS	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Steam	UV
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Air	UV
4 NPS	6 NPS	7.79 in ²	[P] 3.15 in	1.036 in	15-1400 psi	Steam	UV
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Air	UV
6 NPS	8 NPS	13.548 in ²	[Q] 4.154 in	1.248 in	15-1038.5 psi	Steam	UV
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Air	UV
6 NPS	8 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-100 psi	Steam	UV
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Air	UV
6 NPS	10 NPS	19.325 in ²	[R] 4.961 in	1.497 in	15-913.5 psi	Steam	UV
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Air	UV
8 NPS	10 NPS	31.749 in ²	[T] 6.358 in	1.931 in	15-522 psi	Steam	UV
Design Name	e: 526D			NBCert #	# <u>37246</u>		
Manufacturer/Assembler							

UV

Assembler

09/28/2024

[Safety Relief Valve] 526D Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on March 4, 2002 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.990 SCFM/PSIA; (alternate medium): 5.590 PPH/PSIA Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable Flow Area Configuration: Restricted Lift Designed by: LESER GmbH & Co. KG {LES}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2,3 NPS	0.121 in²	[D] 0.551 in	0.0551 in	15-2900 psi	Steam	UV
1-1.5 NPS	2,3 NPS	0.121 in ²	[D] 0.551 in	0.0551 in	15-7975 psi	Air	UV

Valve & Actuation Services, LLC (VSI)

Chattanooga, TN 37419United States

This Company Manufactures or Assembles:

Design Name	: 1541, 1543	3, 1541-3, 1	543-3	NBCert #	ŧ 18032			
Manufacturer/As	ssembler		Designato	rs	E	xpiration Date		
Assembler			UV, V		0	9/18/2024		
Design Type								
[Safety Valve] 1541, 1543, 1541-3, 1543-3 Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V	
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV	
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V	
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV	
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V	
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV	
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V	
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV	
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V	
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV	
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V	
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV	
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V	

Nameplate Abbreviation: Chalmers & Kubeck - TN

Design Type

1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV			
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V			
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV			
1.5-2 NPS	2 NPS	0.785 in²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V			
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV			
1.5-2 NPS	2 NPS	0.785 in²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V			
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV			
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V			
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV			
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-300 psi	Steam	NV, UV, V			
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV			
Design Name	e: 1811, 151	1		NBCert	# 18122					
		_		_						
Manufacturer/A	Assembler		Designate	ors	Ex	cpiration Date	9			
Assembler			UV, V		12	2/17/2024				
Design Type										
[Safety Valve] 1811, 1511 Capacity Tests: Sec. UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}										
Designed by: Dr	esser, LLC {DRJ}									
Designed by: Dr	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
Inlet Size	Outlet Size	Flow Area 0.307 in ²	Orifice [designator] dia. [F] 0.625 in	Lift 0.156 in	Set Pressure Range 15-1500 psi	Media Steam	Designator UV, V			
Inlet Size	Outlet Size 1.5 NPS	Flow Area 0.307 in ² 0.307 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in	Lift 0.156 in 0.156 in	Set Pressure Range 15-1500 psi 15-1500 psi	Media Steam Air	Designator UV, V UV			
Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS	Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	Flow Area 0.307 in ² 0.307 in ² 0.503 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in	Lift 0.156 in 0.156 in 0.2 in	Set Pressure Range 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam	Designator UV, V UV UV			
Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS	Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in	Set Pressure Range 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam Air	Designator UV, V UV UV UV, V			
Inlet Size 1.25-1.5 NPS	Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS	Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.2 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Air	Designator UV, V UV UV UV, V UV, V UV, V			
Inlet Size 1.25-1.5 NPS 1.5-2.5 NPS	Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS	Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ²	Orifice (designator) dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Steam	Designator UV, V UV UV, V UV, V UV, V UV UV, V UV			
Inlet Size 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS	Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS	Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ²	Orifice (designator) dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [J] 1.281 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Steam Steam Steam Steam Steam Steam	Designator UV, V UV UV, V UV			
Inlet Size 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS	Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS	Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1.281 in [J] 1.281 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in	Set Pressure 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Steam	Designator UV, V UV UV, V UV UV			
Inlet Size 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2.3 NPS	Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS	Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [J] 1.281 in [J] 1.281 in [K] 1.531 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in	Set Pressure 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V UV UV, V			
Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2.3 NPS 2-3 NPS	Juiltoni. No22le/Full Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3,4 NPS 3,4 NPS	Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 1.287 in ² 1.287 in ² 1.84 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [J] 1.281 in [J] 1.281 in [J] 1.281 in [K] 1.531 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Air	Designator UV, V UV UV, V			
Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2.3 NPS 2.3 NPS 2.5-4 NPS	Guilet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS	Flow Area 0.307 in² 0.307 in² 0.503 in² 0.503 in² 0.785 in² 1.287 in² 1.84 in² 2.853 in²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [J] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in	Set Pressure 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V UV UV UV, V			
Inlet Size 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS 2-3 NPS 2.5-4 NPS	Guilet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3,4 NPS 3,4 NPS 4,6 NPS	Flow Area 0.307 in² 0.307 in² 0.503 in² 0.503 in² 0.785 in² 0.785 in² 1.287 in² 1.84 in² 1.84 in² 2.853 in²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [L] 1.906 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.477 in	Set Pressure 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Air Steam Air	Designator UV, V UV, V UV UV, V			
Inlet Size 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS 2.5-4 NPS 2.5-4 NPS 3 NPS	guiation: N022le/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 4, 6 NPS	Flow Area 0.307 in² 0.307 in² 0.503 in² 0.503 in² 0.785 in² 1.287 in² 1.287 in² 1.84 in² 2.853 in² 2.853 in² 3.6 in²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [J] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [L] 1.906 in [L] 1.906 in [M] 2.14 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.477 in 0.477 in 0.535 in	Set Pressure Range 15-1500 psi	Media Steam Air Steam Steam Air Steam Steam Air Steam Air Steam Air	Designator UV, V UV UV UV, V			
Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS 2.5-4 NPS 3 NPS 3 NPS	guitation: No22le/Full Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3,4 NPS 4,6 NPS 4,6 NPS 4,6 NPS 4,6 NPS 4,6 NPS	Flow Area 0.307 in² 0.307 in² 0.503 in² 0.503 in² 0.785 in² 1.287 in² 1.287 in² 1.84 in² 2.853 in² 3.6 in²	Orifice [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [G] 0.8 in [J] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [L] 1.906 in [L] 1.906 in [M] 2.14 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.477 in 0.477 in 0.535 in	Set Pressure 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V UV UV, V			
Inlet Size 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS 2.5-4 NPS 3 NPS 3 NPS 4 NPS	gdiation: N022le/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 4, 6 NPS 4, 6 NPS 6 NPS	Flow Area 0.307 in² 0.307 in² 0.503 in² 0.503 in² 0.785 in² 0.785 in² 1.287 in² 1.287 in² 1.84 in² 2.853 in² 3.6 in² 3.6 in² 4.34 in²	Orifice [F] 0.625 in [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [J] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [L] 1.906 in [L] 1.906 in [M] 2.14 in [M] 2.14 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.477 in 0.477 in 0.535 in 0.535 in	Set Pressure 15-1500 psi	Media Steam Air Steam Air Steam Air Steam Air Steam Air Steam Air Steam Air	Designator UV, V UV UV UV, V			
Flow Area Contribution Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS 2.5-4 NPS 3 NPS 3 NPS 4 NPS	guitation: No22le/Full Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 4, 6 NPS 6 NPS 6 NPS	Flow Area 0.307 in² 0.307 in² 0.503 in² 0.503 in² 0.785 in² 0.785 in² 1.287 in² 1.287 in² 1.287 in² 1.287 in² 1.287 in² 1.287 in² 1.84 in² 2.853 in² 3.6 in² 3.6 in² 4.34 in²	Orifice [G] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [L] 1.906 in [L] 1.905 in [N] 2.14 in [M] 2.14 in [M] 2.351 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.477 in 0.477 in 0.535 in 0.535 in 0.588 in	Set Pressure 15-1500 psi	MediaSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirAirSteamAirAirSteamAir	Designator UV, V			
Prow Area Confin Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS 2.5-4 NPS 3 NPS 3 NPS 4 NPS 4 NPS	Juiltonin No22le/Pull Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS 4, 6 NPS 4, 6 NPS 6 NPS 6 NPS 6 NPS	Flow Area 0.307 in² 0.307 in² 0.503 in² 0.503 in² 0.785 in² 0.785 in² 1.287 in² 1.287 in² 1.287 in² 1.84 in² 2.853 in² 3.6 in² 3.6 in² 4.34 in² 4.34 in² 6.38 in²	Orifice [F] 0.625 in [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [H] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [L] 1.906 in [L] 1.905 in [M] 2.14 in [M] 2.351 in [M] 2.351 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in 0.477 in 0.477 in 0.535 in 0.535 in 0.538 in 0.588 in 0.588 in 0.713 in	Set Pressure 15-1500 psi 15-1500 psi	MediaSteamAirSteamSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamAirSteamSteamAir	Designator UV, V UV, V			

6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V			
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV			
	1900 1900)_30 1900_3								
Design Name	: (Liquids)			NBCert #	\$ 18784					
Manufacturer/A	Manufacturer/Assembler Designators Expiration Date									
Assembler			UV		09/	/19/2024				
Design Type										
[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V			
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V			
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V			
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V			
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V			
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V			
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V			
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V			
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V			
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V			
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V			
6-6 NPS	8 NPS	12.851 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V			
6-6 NPS	8, 10 NPS	18.604 in²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V			
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V			
8-8 NPS	10 NPS	30.21 in²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V			
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V			
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V			
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V			

Design Name: 1900, 1900-30, 1900-35

BCert #

8201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/18/2024

[Safety Relief Valve] 1900, 1900-30, 1900-35 Capacity Tests: Sec. NV, UV at Dresser, Inc. on October 11, 1954 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Air	NV, UV
8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV
8 NPS	10 NPS	35 in ²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV

12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV			
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV			
Design Name	e: 19000 Seri	ies		NBCert ‡	\$ 18706					
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date				
Assembler			UV		09	/18/2024				
Design Type										
Design Type [Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV			
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV			
0.5-1 NPS	1 NPS	0.11 in²	0.375 in	0.118 in	15-5000 psi	Air	NV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV			
1.5-1.5 NPS	2 NPS	0.357 in²	0.675 in	0.212 in	15-1500 psi	Air	UV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV			
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV			
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV			
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV			
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV			

2.162 in

15-300 psi

10 NPS

14 NPS

50.26 in²

[V] 8 in

NV, UV

Steam

Design Nam	e: 19000 Sei	ries, Liquid		NBCert	# 18717			
Manufacturer/	Assembler		Designat	ors	E	xpiration Date)	
Assembler			UV		0	1/23/2025		
Design Type								
[Relief Valve] 1 Capacity Tests: Method of Estal Certified Value: Media - Test: W Set Pressure D Blowdown Char Flow Area Conf Designed by: D	9000 Series, Liquid Sec. UV at Dresser, blishing Relieving Ca 0.673 Unitless Vater/Liquid; Certified efinition: First Steady racteristics: Fixed iguration: Nozzle/Full resser, LLC {DRJ}	Inc. on August pacity: Flow Ca : Liquid Stream Lift	30, 1994 apacity, K					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV	
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV	
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV	
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV	
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV	
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV	
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV	
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV	
Design Nam	e: 1900D-2,	1900-30D-2	2	NBCert	# 18144			
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	;	
Assembler			UV		0	9/19/2024		
Design Type								
[Safety Relief V Capacity Tests: Method of Esta Certified Value: Media - Test: A Set Pressure D Blowdown Char Flow Area Conf Designed by: D	[Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	

[D] 0.674 in

[D] 0.674 in

0.066 in

0.066 in

15-4230 psi

15-6250 psi

0.1279 in²

0.1279 in²

1-1.5 NPS

1-1.5 NPS

2-3 NPS

2-3 NPS

NV, UV

UV

Steam

Air

Design Name: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 1

4 NPS

6 NPS

5.047 in²

[N] 2.535 in

0.929 in

15-1600 psi

Manufacturer/A	ssembler		Des	signato	rs		Expiration Date	
Assembler			UV				12/17/2024	
Design Type								
[Relief Valve] 19 Capacity Tests: S Method of Establ Certified Value: 3 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	00D-2, 1900-30D-2 I Sec. NV, UV, V at Dre lishing Relieving Cap 3.256 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady s acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	LA & DALA (Lic esser, Inc. on Ju pacity: Flow Ca SID Liquid Stream ift	uids) Jy 12, 1995 pacity, Flow Fac	ctor				
Inlet Size	Outlet Size	Flow Area	Orifice [designator]	dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 in		0.056 in	15-6250 psi	Water	NV, UV, V
Design Name	e: 1900-DM				NBCert #	1906	66	
Manufacturer/A	ssembler		Des	signato	rs		Expiration Date	
Assembler			UV				09/29/2027	
Design Type								
HolderDesignation Capacity Tests: S Method of Establ Certified Value: C Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	on: Sec. UV at Dresser, Ir lishing Relieving Cap).855 Unitless; (alterr /Gas, Water/Liquid; C finition(1): Pop; (2): I acteristics: Fixed guration: Nozzle/Full I esser, LLC {DRJ}	nc. on March 1 acity: Flow Ca nate medium): Certified: Air, G First Steady St Lift	5, 2010 pacity, K 0.670 Unitless; as, Liquid ream	Certific	ation Provisions: M	ultiple Media (C	Code Case 2787)	
Inlet Size	Outlet Size	Flow Area	Orifice [designator]	dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in		0.182 in	15-10000 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.3568 in ²	[F] 0.674 in		0.182 in	15-10000 psi	Water	UV
1.5-2 NPS	3 NPS	0.5849 in ²	[G] 0.863 in		0.234 in	15-10000 psi	Air	UV
1.5-2 NPS	3 NPS	0.5849 in ²	[G] 0.863 in		0.234 in	15-10000 psi	Water	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in		0.395 in	15-10000 psi	Air	UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in		0.395 in	15-10000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in		0.506 in	15-10000 psi	Water	UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in		0.506 in	15-10000 psi	Air	UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in		0.605 in	15-3000 psi	Air	UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in		0.605 in	15-3000 psi	Water	UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in		0.753 in	15-2900 psi	Air	UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in		0.753 in	15-2900 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in		0.846 in	15-1600 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in		0.846 in	15-1600 psi	Water	UV

UV

Air

4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.782 in	15-650 psi	Air	UV
6 NPS	8, 10 NPS	18.6 in²	[R] 4.867 in	1.782 in	15-650 psi	Water	UV
8 NPS	10 NPS	30.21 in²	[T] 6.205 in	2.272 in	15-360 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2.272 in	15-360 psi	Water	UV
8 NPS	10 NPS	35 in ²	[U] 6.688 in	2.428 in	15-360 psi	Air	UV
8 NPS	10 NPS	35 in²	[U] 6.688 in	2.428 in	15-360 psi	Water	UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Air	UV
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Air	UV
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	UV
Design Name	e: 1900-DM-I	D	Builmat	NBCert a	# 19088		
Manufacturer/A	ssembler		Designato	ors	E	cpiration Date	
Assembler			UV		09)/29/2027	
[Safety Relief Va HolderDesignatic Capacity Tests: S Method of Estab Certified Value: Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	Ive] 1900-DM-D on: Sec. UV at National E lishing Relieving Cap 1.991 SCFM/PSIA; (a r/Gas, Water/Liquid; (finition(1): Pop; (2): acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	Board Testing L bacity: Flow Ca alternate mediu Certified: Air, G First Steady S .ift	.ab on March 18, 2010 pacity, Slope ım): 3.256 GPM/SQ.R sas, Liquid tream	T. PSID; Certificatic	on Provisions: Multi	ple Media (Co	de Case 2787)
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.1279 in ²	[D] 0.674 in	0.067 in	15-10000 psi	Air	UV
Design Name	e: 1900E-2, 1	1900-30E-2	2	NBCert a	# 18166		
Manufacturer/A	ssembler		Designato	ors	E>	piration Date	
Assembler			UV		09	/19/2024	
Design Type							
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De	Ive] 1900E-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al	30E-2 ser, Inc. on Aug pacity: Flow Ca ternate mediur	just 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA				

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Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV	
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV	
Design Name	e: 1900E-2, 1	1900-30E-2	LA & DALA (Liqi	uids) NBCert <i>‡</i>	ŧ 18762			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Assembler			UV		01/	23/2025		
Design Type								
[Relief Valve] 19 Capacity Tests: 5 Method of Establ Certified Value: 5 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre	00E-2, 1900-30E-2 L Sec. NV, UV, V at Dre lishing Relieving Cap 5.798 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Restricted L esser, LLC {DRJ}	LA & DALA (Liq esser, Inc. on Jo pacity: Flow Ca 'SID Liquid Stream	uids) uly 12, 1995 pacity, Flow Factor					
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V	
Design Name: 19110M & 19110H (Liquids) NBCert # 19077								
Design Name	e: 19110M &	19110H (L	iquids)	NBCert #	\$ 19077			
Design Name Manufacturer/A	e: 19110M & ssembler	19110H (L	iquids) Designato	NBCert #	‡ 19077 Ex	piration Date	_	
Design Name Manufacturer/A Assembler	e: 19110M & ssembler	19110H (L	iquids) Designato UV	NBCert / ors	# 19077 Ex 08/	piration Date /06/2027	_	
Design Name Manufacturer/A Assembler Design Type	e: 19110M & ssembler	19110H (L	iquids) Designato UV	NBCert / ors	# 19077 Ex 08/	piration Date /06/2027	_	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	e: 19110M & ssembler 110M & 19110H (Liq Sec. NV, UV at Dress Lishing Relieving Cap 2.264 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ}	uids) ser, Inc. on July bacity: Flow Ca SID Liquid Stream Lift	iquids) Designato UV 29, 2010 pacity, Flow Factor	NBCert #	# 19077 Ex 08/	piration Date (06/2027		
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre Inlet Size	e: 19110M & ssembler 110M & 19110H (Liq Sec. NV, UV at Dress lishing Relieving Cap 2.264 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size	19110H (L uids) ser, Inc. on July pacity: Flow Ca SID Liquid Stream Lift Flow Area	iquids) Designato UV 29, 2010 pacity, Flow Factor Orifice [designator] dia.	NBCert #	# 19077 Ex 08/ Set Pressure Range	piration Date 06/2027 Media	Designator	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 0.5-1 NPS	e: 19110M & ssembler 110M & 19110H (Liq Sec. NV, UV at Dress lishing Relieving Cap 2.264 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS	19110H (L uids) ser, Inc. on July vacity: Flow Ca SID Liquid Stream Lift Flow Area 0.11 in ²	iquids) Designato UV 29, 2010 pacity, Flow Factor Orifice [designator] dia. 0.375 in	NBCert # ors Lift 0.118 in	# 19077 Ex 08/ 08/ Set Pressure Range 290-5000 psi	piration Date 06/2027 Media Water	Designator	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 0.5-1 NPS 0.5-1 NPS	e: 19110M & ssembler 110M & 19110H (Liq Sec. NV, UV at Dress lishing Relieving Cap 2.264 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS	19110H (L uids) ser, Inc. on July bacity: Flow Ca SID Liquid Stream Lift Flow Area 0.11 in ² 0.11 in ²	iquids) Designato UV 29, 2010 pacity, Flow Factor Orifice [designator] dia. 0.375 in 0.375 in	NBCert #	 19077 Ex 08/ 08/ 290-5000 psi 290-5000 psi 	piration Date 06/2027 Media Water Water	Designator UV NV	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra Inlet Size 0.5-1 NPS 0.5-1 NPS	e: 19110M & ssembler 110M & 19110H (Liq Sec. NV, UV at Dress Lishing Relieving Cap 2.264 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS 1 NPS	19110H (L uids) ser, Inc. on July bacity: Flow Ca SID Liquid Stream Lift Flow Area 0.11 in ² 0.11 in ²	iquids) Designato UV 29, 2010 pacity, Flow Factor Orifice [designator] dia. 0.375 in 0.375 in	NBCert #	 19077 Ex 08/ 08/ 290-5000 psi 290-5000 psi 290-5000 psi 18379 	piration Date /06/2027 Media Water Water	Designator	
Design Name Manufacturer/A Assembler Design Type [Relief Valve] 19 Capacity Tests: S Method of Estab Certified Value: 2 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dre Inlet Size 0.5-1 NPS 0.5-1 NPS Design Name Manufacturer/A	e: 19110M & ssembler 110M & 19110H (Liq Sec. NV, UV at Dress Lishing Relieving Cap 2.264 GPM/SQ.RT. P ater/Liquid; Certified: finition: First Steady acteristics: Fixed guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1 NPS 1 NPS 1 NPS 2 1982 Ssembler	19110H (L uids) ser, Inc. on July bacity: Flow Ca SID Liquid Stream Lift Flow Area 0.11 in ² 0.11 in ²	iquids) Designato UV 29, 2010 pacity, Flow Factor Orifice [designator] dia. 0.375 in 0.375 in Designato	NBCert #	 19077 Ex 08/ 08/ 290-5000 psi 290-5000 psi 290-5000 psi 18379 Ex 	piration Date /06/2027 Media Water Water	Designator	

Designed by: Dresser, LLC {DRJ}

[Safety Relief Valve] 1982 Capacity Tests: Sec. NV, -Class 2, -Class 3, UV at National Board Testing Lab (Picaway) on May 6, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.855 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Orifice Set Pressure **Inlet Size Outlet Size** Flow Area Lift Media Designator [designator] dia. Range 0.5 NPS .75 NPS 0.121 in² 0.393 in 0.092 in 15-500 psi Air NV, UV 0.5 NPS .75 NPS 0.121 in² 0.393 in 0.092 in 15-500 psi Steam NV, UV 0.75 NPS 1 NPS 0.216 in² 0.524 in 0.123 in 15-500 psi Air NV, UV 0.75 NPS 1 NPS 0.216 in² 0.524 in 0.123 in 15-500 psi Steam NV, UV 1.5 NPS 1 NPS 0.332 in² 0.65 in 0.15 in Air NV, UV 15-500 psi 1 NPS 0.332 in² 1.5 NPS 0.65 in 0.15 in 15-500 psi Steam NV, UV 1.5 NPS 2 NPS 0.857 in² 1.045 in 0.243 in 15-500 psi Air NV, UV 1.5 NPS 2 NPS 0.857 in² 1.045 in 0.243 in 15-500 psi Steam NV, UV 2 NPS 2.5 NPS 1.399 in² 1.335 in 0.31 in 15-500 psi Steam NV, UV 2 NPS 2.5 NPS 1.399 in² 1.335 in 0.31 in 15-500 psi Air NV, UV

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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/29/2024

Design Type

[Pilot Operated Pressure Relief Valve] 3900 (39PV, 39MV pilots) Capacity Tests: Sec. UV at Dresser, Inc. on May 19, 1988 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Nozzle/Full Lift

Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.205 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-750 psi	Steam	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	NV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	NV

1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-750 psi	Steam	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-6250 psi	Air	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.07 in	0.5 in	15-750 psi	Steam	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Air	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-750 psi	Steam	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Air	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-750 psi	Steam	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Air	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-750 psi	Steam	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-750 psi	Steam	UV
3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Air	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-750 psi	Steam	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-750 psi	Steam	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Air	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-750 psi	Steam	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Air	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Steam	UV

8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Air	UV
8 NPS	10, 12 NPS	44.18 in ²	7.5 in	2 in	15-700 psi	Steam	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	63.62 in²	[W] 9 in	3 in	15-750 psi	Steam	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-750 psi	Steam	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-1500 psi	Air	UV
10 NPS	10-14 NPS	69.94 in²	9.437 in	3 in	15-750 psi	Steam	UV
Design Nam	e: 3900 (39P	℃, 39MV pi	ilots, liquid)	NBCert	# 18458		
Manufacturer/A	Assembler		Designate	ors	E>	piration Date	•
Assembler			UV		08	/06/2027	
Design Type							
[Pilot Operated Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr	Pressure Relief Valve Sec. UV at Dresser, I blishing Relieving Cap 0.743 Unitless /ater/Liquid; Certified: efinition: First Steady acteristics: Fixed guration: Nozzle/Full resser, LLC {DRJ}	e] 3900 (39PV, Inc. on June 1, pacity: Flow Ca : Liquid Stream Lift	39MV pilots, liquid) 1988 apacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.128 in ²	[D] 0.404 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.228 in ²	[E] 0.539 in	0.25 in	15-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-6250 psi	Water	NV
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.585 in ²	[G] 0.863 in	0.5 in	15-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	NV
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.5 in	15-6250 psi	Water	UV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	NV
2-3 NPS	3-4 NPS	1.496 in ²	[J] 1.38 in	0.5 in	15-6250 psi	Water	UV
1.5 NPS	2 NPS	1.621 in ²	1.437 in	0.25 in	15-6250 psi	Water	UV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	NV
3 NPS	4 NPS	2.138 in ²	[K] 1.65 in	0.68 in	15-6250 psi	Water	UV
2 NPS	3 NPS	2.764 in ²	1.876 in	0.5 in	15-6250 psi	Water	UV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	NV
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.68 in	15-6250 psi	Water	UV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	4.186 in ²	[M] 2.309 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	1 in	15-3750 psi	Water	UV

3 NPS	4 NPS	6.321 in ²	2.837 in	0.68 in	15-3750 psi	Water	UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	NV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1 in	15-3750 psi	Water	UV
4 NPS	6 NPS	10.76 in ²	3.701 in	1 in	15-3750 psi	Water	UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	NV
6 NPS	8 NPS	18.6 in ²	[R] 4.866 in	1.31 in	15-1500 psi	Water	UV
6 NPS	8 NPS	24.95 in ²	5.636 in	1.31 in	15-1500 psi	Water	UV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	NV
8 NPS	10 NPS	30.21 in ²	[T] 6.205 in	2 in	15-1500 psi	Water	UV
8 NPS	10 NPS	44.18 in ²	7.5 in	2 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	NV
10 NPS	10-14 NPS	63.62 in ²	[W] 9 in	3 in	15-1500 psi	Water	UV
10 NPS	10-14 NPS	69.94 in ²	9.437 in	3 in	15-1500 psi	Water	UV

Valve & Actuation Services, LLC dba Chalmers & Kubeck - AL (CKD)

Nameplate Abbreviation: Chalmers & Kubeck - AL

Decatur, AL 35601United States

This Company Manufactures or Assembles:

Design Name	e: 1541, 1543	3, 1541-3, 1	1543-3	NBCert	# 18032		
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date	
Assembler			UV, V		0	9/22/2027	
Design Type							
[Safety Valve] 1 Capacity Tests: S Method of Estab Certified Value: (Media - Test: St Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	541, 1543, 1541-3, 1 Sec. NV, UV, V at Dre lishing Relieving Cap 0.878 Unitless eam; Certified: Air, G finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ}	543-3 esser, Inc. on M pacity: Flow Ca as, Steam e Lift	/arch 11, 1975 pacity, K				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV

1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV		
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V		
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV		
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V		
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV		
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V		
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV		
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-300 psi	Steam	NV, UV, V		
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV		
Design Nam	e: 1811, 151	1		NBCert	# 18122				
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date			
					09	/22/2027			
AssemblerUV, V09/22/2027Design Type[Safety Valve] 1811, 1511 Capacity Tests: Sec. UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.877 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift									
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr	811, 1511 Sec. UV, V at Dresse blishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific sfinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ}	r, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift	apacity, K						
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr Inlet Size	811, 1511 Sec. UV, V at Dresse blishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific sfinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area	h 11, 1975 apacity, K team Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse blishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS	er, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ²	Orifice [designator] dia.	Lift 0.156 in	Set Pressure Range 15-1500 psi	Media Steam	Designator UV, V		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estable Certified Value: Media - Test: Ai Set Pressure Des Blowdown Char Flow Area Confin Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse lishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS	er, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in	Lift 0.156 in 0.156 in	Set Pressure Range 15-1500 psi 15-1500 psi	Media Steam Air	Designator UV, V UV		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char. Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse blishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS	r, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St Lift Flow Area 0.307 in ² 0.307 in ²	Orifice [designator] dia. [F] 0.625 in [G] 0.8 in	Lift 0.156 in 0.156 in 0.2 in	Set Pressure Range Range 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam	Designator UV, V UV UV		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse olishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS	er, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [G] 0.8 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in	Set Pressure Range Image 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi 15-1500 psi	Media Steam Air Steam	Designator UV, V UV, V UV, V UV UV, V UV UV, V		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estable Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS	811, 1511 Sec. UV, V at Dresse Jishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS	er, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ²	Orifice [designator] dia. [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in	Set Pressure Range Image: Comparison of the	Media Steam Air Steam Air Air Steam	Designator UV, V		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estate Certified Value: Media - Test: Ai Set Pressure De Blowdown Char. Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-2.5 NPS 1.5-2.5 NPS	811, 1511 Sec. UV, V at Dresse blishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS	r, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ²	Orifice [designator] dia. [F] 0.625 in [G] 0.8 in [G] 1.8 in [H] 1 in [H] 1 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in	Set Pressure Range I 15-1500 psi 1	Media Steam Air Steam Air Steam	Designator UV, V UV UV UV UV, V UV, V UV, V UV, V		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char. Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS	811, 1511 Sec. UV, V at Dresse olishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifue finition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS	er, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ²	Orifice [designator] dia. [F] 0.625 in [G] 0.8 in [G] 0.8 in [H] 1 in [H] 1 in [J] 1.281 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in	Set Pressure Range Image 15-1500 psi 1	Media Steam Air Steam Air Steam Air Steam	Designator UV, V		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estable Certified Value: Media - Test: Ai Set Pressure De Blowdown Char- Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS	811, 1511 Sec. UV, V at Dresse blishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS	r, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 1.287 in ²	Orifice [designator] dia. [F] 0.625 in [G] 0.8 in [G] 0.8 in [J] 1.281 in [J] 1.281 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in	Set Pressure Range Image 15-1500 psi 1	Media Steam Steam Air Steam Air Steam Air Steam	Designator UV, V UV UV, V UV UV, V UV		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estate Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS	811, 1511 Sec. UV, V at Dresse Jishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie efinition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS	r, Inc. on Marc pacity: Flow Ca ed: Air, Gas, St E Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 1.287 in ² 1.84 in ²	Orifice [designator] dia. [F] 0.625 in [G] 0.8 in [G] 1.281 in [J] 1.281 in [J] 1.531 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in	Set Pressure Range 15-1500 psi 1	Media Media Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estate Certified Value: Media - Test: Ai Set Pressure De Blowdown Char. Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS 2-3 NPS	811, 1511 Sec. UV, V at Dresse blishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certifie efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St e Lift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ² 1.84 in ²	Orifice [designator] dia. [F] 0.625 in [F] 0.625 in [G] 0.8 in [H] 1 in [H] 1 in [H] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.25 in 0.25 in 0.321 in 0.321 in 0.383 in	Set Pressure Range 15-1500 psi	Media Steam Steam Air Steam Air Steam Air Steam Air Steam Air	Designator UV, V UV, V		
Assembler Design Type [Safety Valve] 1 Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr Inlet Size 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.25-1.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 1.5-2.5 NPS 2-3 NPS 2.5-4 NPS	811, 1511 Sec. UV, V at Dresse olishing Relieving Cap 0.877 Unitless r/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full esser, LLC {DRJ} Outlet Size 1.5 NPS 1.5 NPS 1.5 NPS 1.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 2.5 NPS 3, 4 NPS 3, 4 NPS 4, 6 NPS	r, Inc. on Marc bacity: Flow Ca ed: Air, Gas, St et ift Flow Area 0.307 in ² 0.307 in ² 0.503 in ² 0.503 in ² 0.785 in ² 0.785 in ² 1.287 in ² 1.84 in ² 1.84 in ² 2.853 in ²	Orifice [designator] dia. [F] 0.625 in [G] 0.8 in [G] 0.8 in [J] 1.281 in [J] 1.281 in [K] 1.531 in [K] 1.531 in [L] 1.906 in	Lift 0.156 in 0.156 in 0.2 in 0.2 in 0.2 in 0.25 in 0.321 in 0.321 in 0.383 in 0.383 in	Set Pressure Range 15-1500 psi	Media Steam Steam Air Steam Air Steam Air Steam Air Steam Air Steam	Designator UV, V UV, V		

3 NPS

4, 6 NPS

3.6 in²

[M] 2.14 in

0.535 in

15-1500 psi

Steam

UV, V

3 NPS	4, 6 NPS	3.6 in ²	[M] 2.14 in	0.535 in	15-1500 psi	Air	UV			
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Steam	UV, V			
4 NPS	6 NPS	4.34 in ²	[N] 2.351 in	0.588 in	15-1500 psi	Air	UV			
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Steam	UV, V			
4 NPS	6 NPS	6.38 in ²	[P] 2.85 in	0.713 in	15-1500 psi	Air	UV			
6 NPS	8 NPS	11.05 in²	[Q] 3.75 in	0.938 in	15-1500 psi	Steam	UV, V			
6 NPS	8 NPS	11.05 in ²	[Q] 3.75 in	0.938 in	15-1500 psi	Air	UV			
Design Name	e: 1900, 1900 (Liquids)	0-30 1900-:	35 LA & DALA	NBCert	# 1878	4				
Manufacturer/A	ssembler		Designate	ors		Expiration Date				
Assembler			UV, V		()9/22/2027				
Design Type										
[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V			
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V			
1.5-1.5 NPS	2 - 3 NPS	0.357 in²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V			
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V			
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V			
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V			
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V			
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V			
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V			
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V			
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V			
6-6 NPS	8 NPS	12.851 in ²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V			
6-6 NPS	8, 10 NPS	18.604 in²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V			
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V			
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V			
8-8 NPS	10 NPS	35 in ²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V			
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V			
12-12 NPS	16 NPS	78.996 in²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V			

Design Nam	e: 1900, 190	0-30, 1900-	-35	NBCert	# 18201		
Manufacturer/A	Assembler		Designate	ors	E>	piration Date	
Assembler			UV		09	/22/2027	
Design Type							
[Safety Relief Va Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr	alve] 1900, 1900-30, Sec. NV, UV at Dress olishing Relieving Ca 0.855 Unitless ir/Gas, Steam; Certifi efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ}	1900-35 ser, Inc. on Oct pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift	ober 11, 1954 ıpacity, K æam				
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV

8 NPS

10 NPS

30.21 in²

[T4] 6.205 in

1.723 in

15-300 psi

Air

NV, UV

8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV			
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV			
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV			
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV			
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV			
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV			
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV			
Design Name	e: 19000 Ser	ies		NBCert ;	# 18706					
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date				
Assembler			UV		09	/22/2027				
Design Type										
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV			
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV			

2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	UV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Air	NV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	UV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Steam	NV				
Design Name	e: 19000 Ser	ies, Liquid		NBCe	rt # 18717						
Manufacturer/A	ssembler		Design	nators	Ex	cpiration Da	ite				
Assembler			UV		09	9/22/2027					
Design Type [Relief Valve] 19000 Series, Liquid Capacity Tests: Sec. UV at Dresser, Inc. on August 30, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.673 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}											
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator				
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	UV				
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.045 in	15-15000 psi	Water	NV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	UV				
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Water	NV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	UV				
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-290 psi	Water	NV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	UV				
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Water	NV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	UV				
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Water	NV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	UV				
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Water	NV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	UV				
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV				
Design Name	e: 1900D-2, ²	1900-30D-2		NBCe	rt # 18144						
Manufacturer/A	ssembler		Design	nators	E	piration Da	te				
Assembler			UV		09	0/22/2027					
Design Type											
[Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop											

Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV		
Design Name	e: 1900D-2, 1	1900-30D-2	LA & DALA (Liq	uids) NBCert <i>‡</i>	# 18751				
Manufacturer/A	ssembler		Designato	ors	Ex	cpiration Date	ı.		
Assembler			UV, V		09)/22/2027			
Design Type									
[Relief Valve] 1900D-2, 1900-30D-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.256 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V		
Design Name: 1900E-2, 1900-30E-2 NBCert # 18166									
Design Name	e: 1900E-2, 1	900-30E-2		NBCert 7	7 18166				
Design Name Manufacturer/A	e: 1900E-2, 1 ssembler	900-30E-2	Designato	NBCert 7	7 18166 Ex	cpiration Date			
Design Name Manufacturer/A Assembler	e: 1900E-2, 1 ssembler	900-30E-2	Designato	NBCert 7	7 18166 Ex 09	<pre>cpiration Date 0/22/2027</pre>			
Design Name Manufacturer/A Assembler Design Type	e: 1900E-2, 1 ssembler	900-30E-2	Designato UV	NBCert 7	7 18166 Ex 09	xpiration Date			
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	e: 1900E-2, 1 ssembler lve] 1900E-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al /Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ}	30E-2 er, Inc. on Aug pacity: Flow Ca ternate mediun ed: Air, Gas, Sto e (Single Ring) ift	Designato UV ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA eam	NBCert 7	78166 Ε: Ος	xpiration Date			
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro	e: 1900E-2, 1 ssembler lve] 1900E-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al /Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size	30E-2 er, Inc. on Aug pacity: Flow Ca ternate mediun ed: Air, Gas, Str e (Single Ring) ift Flow Area	Designato UV ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA eam Orifice [designator] dia.	Lift	F 18166	xpiration Date	Designator		
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 1-1.5 NPS	e: 1900E-2, 1 ssembler lve] 1900E-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al /Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size 2-3 NPS	30E-2 er, Inc. on Aug pacity: Flow Ca ternate mediun ed: Air, Gas, Str e (Single Ring) ift Flow Area 0.2279 in ²	Designato UV ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA eam Orifice [designator] dia. [E] 0.674 in	Lift 0.119 in	F 18166 Ex 05 Set Pressure Range 15-4230 psi	Apiration Date	Designator NV, UV		
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dro Inlet Size 1-1.5 NPS 1-1.5 NPS	e: 1900E-2, 1 ssembler lve] 1900E-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al /Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size 2-3 NPS 2-3 NPS	30E-2 er, Inc. on Aug vacity: Flow Ca ternate mediun ed: Air, Gas, Ste (Single Ring) ift Flow Area 0.2279 in ² 0.2279 in ²	Designato UV ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA eam Orifice [designator] dia. [E] 0.674 in [E] 0.674 in	Lift 0.119 in 0.119 in	F 18166 Ex 05 Set Pressure 6 Range 15-4230 psi 15-6250 psi 15	Media Steam Air	Designator NV, UV NV, UV		
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS	e: 1900E-2, 1 ssembler Ive] 1900E-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al /Gas, Steam; Certific finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS	30E-2 eer, Inc. on Aug pacity: Flow Ca ternate medium ed: Air, Gas, Ste e (Single Ring) ift Flow Area 0.2279 in ² 0.2279 in ² 900-30E-2	Designato UV ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA eam Orifice [designator] dia. [E] 0.674 in [E] 0.674 in	Lift 0.119 in 0.119 in uids) NBCert #	# 18166 E3 05 Set Pressure Range 15-4230 psi 15-6250 psi 4	xpiration Date D/22/2027 Media Steam Air	Designator NV, UV NV, UV		
Design Name Manufacturer/A Assembler Design Type [Safety Relief Va Capacity Tests: S Method of Estab Certified Value:1 Media - Test: Air Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr Inlet Size 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS Design Name Manufacturer/A	e: 1900E-2, 1 ssembler Ive] 1900E-2, 1900- Sec. NV, UV at Dress lishing Relieving Cap 0.040 PPH/PSIA; (al /Gas, Steam; Certifie finition: Pop acteristics: Adjustable guration: Restricted L esser, LLC {DRJ} Outlet Size 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS 2-3 NPS	30E-2 eer, Inc. on Aug pacity: Flow Ca ternate medium ed: Air, Gas, Ste e (Single Ring) ift Flow Area 0.2279 in ² 0.2279 in ² 900-30E-2	Designato UV ust 16, 1977 pacity, Slope n): 3.570 SCFM/PSIA eam Orifice [designator] dia. [E] 0.674 in [E] 0.674 in LA & DALA (Liq Designato	Lift 0.119 in 0.119 in uids) NBCert #	# 18166 E3 05 Set Pressure Range 15-4230 psi 15-6250 psi # 18762 E3	xpiration Date D/22/2027 Media Steam Air	Designator NV, UV NV, UV NV, UV		

Design Type	Design Type									
[Relief Valve] 1900E-2, 1900-30E-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 5.798 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}										
Inlet Size Outlet Size Flow Area Orifice Lift Set Pressure Media Designator [designator] dia.										
1-1.5 NPS 2 - 3 NPS 0.2279 in ² [E] 0.674 in 0.093 in 15-6250 psi Water NV, UV, V										

Valve & Actuation Services, LLC dba Chalmers & Kubeck - MB (CHA)

Nameplate Abbreviation: CKM

Mobile, AL 36619United States

This Company Manufactures or Assembles:

Design Name	e: 1541, 1543	8, 1541-3, 1	1543-3	NBCert #	# 18032				
Manufacturer/A	ssembler		Designato	Designators			Expiration Date		
Assembler			UV, V		1'	/18/2027			
Design Type									
[Safety Valve] 1541, 1543, 1541-3, 1543-3 Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on March 11, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-250 psi	Steam	NV, UV, V		
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D] 0.375 in	0.094 in	15-300 psi	Air	NV, UV		
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Steam	NV, UV, V		
0.5-0.75 NPS	.75 NPS	0.11 in ²	[D3] 0.393 in	0.094 in	15-350 psi	Air	NV, UV		
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-250 psi	Steam	NV, UV, V		
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.125 in	15-300 psi	Air	NV, UV		
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-300 psi	Steam	NV, UV, V		
0.75-1 NPS	1 NPS	0.196 in ²	[E3] 0.524 in	0.125 in	15-350 psi	Air	NV, UV		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-250 psi	Steam	NV, UV, V		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F] 0.625 in	0.156 in	15-300 psi	Air	NV, UV		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-300 psi	Steam	NV, UV, V		
1-1.25 NPS	1.25 NPS	0.307 in ²	[F3] 0.65 in	0.156 in	15-350 psi	Air	NV, UV		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-250 psi	Steam	NV, UV, V		
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G] 0.8 in	0.2 in	15-300 psi	Air	NV, UV		

1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-300 psi	Steam	NV, UV, V
1.25-1.5 NPS	1.5 NPS	0.503 in ²	[G3] 0.835 in	0.2 in	15-350 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-250 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H] 1 in	0.25 in	15-300 psi	Air	NV, UV
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-300 psi	Steam	NV, UV, V
1.5-2 NPS	2 NPS	0.785 in ²	[H3] 1.045 in	0.25 in	15-350 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-250 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J] 1.281 in	0.32 in	15-300 psi	Air	NV, UV
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-300 psi	Steam	NV, UV, V
2-2.5 NPS	2.5 NPS	1.287 in ²	[J3] 1.335 in	0.32 in	15-350 psi	Air	NV, UV

Design Name:	1900, 1900-30 1900-35 LA & (Liquids)	DALA	NBCert # 187	84
Manufacturer/Assem	bler	Designators		Expiration Date
Assembler		UV, V		11/18/2027
Design Type				

[Relief Valve] 1900, 1900-30 1900-35 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.670 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 - 3 NPS	0.128 in ²	[D] 0.4036 in	0.095 in	15-6250 psi	Water	NV, UV, V
1-1.5 NPS	2 - 3 NPS	0.228 in ²	[E] 0.5387 in	0.127 in	15-6250 psi	Water	NV, UV, V
1.5-1.5 NPS	2 - 3 NPS	0.357 in ²	[F] 0.674 in	0.16 in	15-6250 psi	Water	NV, UV, V
1.5-2 NPS	2.5, 3 NPS	0.585 in ²	[G] 0.863 in	0.205 in	15-6000 psi	Water	NV, UV, V
1.5-2 NPS	3 NPS	0.913 in ²	[H] 1.078 in	0.395 in	15-3300 psi	Water	NV, UV, V
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.506 in	15-3100 psi	Water	NV, UV, V
3-3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.605 in	15-3400 psi	Water	NV, UV, V
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.753 in	15-2900 psi	Water	NV, UV, V
4-4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.846 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.929 in	15-1600 psi	Water	NV, UV, V
4-4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	1.126 in	15-1700 psi	Water	NV, UV, V
6-6 NPS	8 NPS	12.851 in²	[Q] 4.045 in	1.482 in	15-900 psi	Water	NV, UV, V
6-6 NPS	8, 10 NPS	18.604 in ²	[R] 4.867 in	1.782 in	15-300 psi	Water	NV, UV, V
8-8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	2.212 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	30.21 in ²	[T-4] 6.205 in	2.272 in	15-360 psi	Water	NV, UV, V
8-8 NPS	10 NPS	35 in²	[U] 6.688 in	2.272 in	15-300 psi	Water	NV, UV, V
10-10 NPS	12 NPS	50.26 in ²	[V] 8 in	2.93 in	15-300 psi	Water	NV, UV, V
12-12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	3.675 in	15-300 psi	Water	NV, UV, V

Design Nam	e: 1900, 190	0-30, 1900-	-35	NBCert	# 18201				
Manufacturer/A	Assembler		Designate	Designators			Expiration Date		
Assembler			UV		11	/18/2027			
Design Type									
[Safety Relief Va Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Dr	alve] 1900, 1900-30, Sec. NV, UV at Dress olishing Relieving Caj 0.855 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full resser, LLC {DRJ}	1900-35 ser, Inc. on Oct pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift	ober 11, 1954 Ipacity, K eam						
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-2000 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.4035 in	0.11 in	15-6250 psi	Air	NV, UV		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-2000 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.5387 in	0.147 in	15-6250 psi	Air	NV, UV		
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-2000 psi	Steam	NV, UV		
1.5 NPS	2-3 NPS	0.3568 in ²	[F] 0.674 in	0.182 in	15-7200 psi	Air	NV, UV		
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in ²	[G] 0.863 in	0.234 in	15-4230 psi	Steam	NV, UV		
1.5-2 NPS	2-1/2, 3 NPS	0.5849 in²	[G] 0.863 in	0.234 in	15-6000 psi	Air	NV, UV		
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-2540 psi	Steam	NV, UV		
1.5-2 NPS	3 NPS	0.9127 in ²	[H] 1.078 in	0.292 in	15-3300 psi	Air	NV, UV		
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-2540 psi	Steam	NV, UV		
2-3 NPS	3, 4 NPS	1.496 in ²	[J] 1.38 in	0.374 in	15-3100 psi	Air	NV, UV		
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-2540 psi	Steam	NV, UV		
3 NPS	4, 6 NPS	2.138 in ²	[K] 1.65 in	0.446 in	15-3400 psi	Air	NV, UV		
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Air	NV, UV		
3-4 NPS	4, 6 NPS	3.317 in ²	[L] 2.055 in	0.556 in	15-2900 psi	Steam	NV, UV		
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Air	NV, UV		
4 NPS	6 NPS	4.186 in ²	[M] 2.3086 in	0.625 in	15-1600 psi	Steam	NV, UV		
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Air	NV, UV		
4 NPS	6 NPS	5.047 in ²	[N] 2.535 in	0.685 in	15-1600 psi	Steam	NV, UV		
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Air	NV, UV		
4 NPS	6 NPS	7.417 in ²	[P] 3.073 in	0.83 in	15-1700 psi	Steam	NV, UV		
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Air	NV, UV		
6 NPS	8 NPS	12.85 in ²	[Q] 4.045 in	1.09 in	15-900 psi	Steam	NV, UV		
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Air	NV, UV		
6 NPS	8, 10 NPS	18.6 in ²	[R] 4.867 in	1.29 in	15-650 psi	Steam	NV, UV		
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Steam	NV, UV		
8 NPS	10 NPS	28.624 in ²	[T] 6.04 in	1.68 in	15-360 psi	Air	NV, UV		

8 NPS

10 NPS

30.21 in²

[T4] 6.205 in

1.723 in

15-300 psi

Air

NV, UV

8 NPS	10 NPS	30.21 in ²	[T4] 6.205 in	1.723 in	15-300 psi	Steam	NV, UV			
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-360 psi	Air	NV, UV			
8 NPS	10 NPS	35 in²	[U] 6.688 in	1.841 in	15-300 psi	Steam	NV, UV			
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Air	NV, UV			
10 NPS	14 NPS	50.26 in ²	[V] 8 in	2.162 in	15-300 psi	Steam	NV, UV			
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Air	NV, UV			
12 NPS	16 NPS	78.996 in ²	[W] 10.029 in	2.523 in	15-300 psi	Steam	NV, UV			
Design Name	e: 19000 Ser	ies		NBCert	# 18706					
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date				
Assembler			UV		11	/18/2027				
Design Type										
[Safety Relief Valve] 19000 Series Capacity Tests: Sec. UV at Dresser, Inc. on August 26, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Steam	NV			
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in	0.039 in	15-1500 psi	Air	UV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	UV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-1500 psi	Steam	NV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	UV			
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in	0.11 in	15-5000 psi	Air	NV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	UV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-1500 psi	Steam	NV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	UV			
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in	0.118 in	15-5000 psi	Air	NV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	UV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-2000 psi	Steam	NV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	UV			
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in	0.126 in	15-8000 psi	Air	NV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	UV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-2000 psi	Steam	NV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	UV			
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in	0.169 in	15-6400 psi	Air	NV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	UV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Air	NV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	UV			
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in	0.212 in	15-1500 psi	Steam	NV			

2-2 NPS	2.5 NPS	0.567 in ²	0.85 in		0.266 in	15-1000 psi	Air	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in		0.266 in	15-1000 psi	Air	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in		0.266 in	15-1000 psi	Steam	UV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in		0.266 in	15-1000 psi	Steam	NV
Design Name	e: 19000 Ser	ies, Liquid			NBCert #	¥ 18717		
Manufacturer/A	ssembler		D	esignato	rs	E	cpiration Date	
Assembler			U	V		11	/18/2027	
Design Type [Relief Valve] 19000 Series, Liquid Capacity Tests: Sec. UV at Dresser, Inc. on August 30, 1994 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.673 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in		0.045 in	15-15000 psi	Water	UV
0.5-1 NPS	1 NPS	0.019 in ²	0.156 in		0.045 in	15-15000 psi	Water	NV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in		0.11 in	15-5000 psi	Water	UV
0.5-1 NPS	1 NPS	0.096 in ²	0.35 in		0.11 in	15-5000 psi	Water	NV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in		0.118 in	15-290 psi	Water	UV
0.5-1 NPS	1 NPS	0.11 in ²	0.375 in		0.118 in	15-290 psi	Water	NV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in		0.126 in	15-8000 psi	Water	UV
0.75-1 NPS	1 NPS	0.126 in ²	0.401 in		0.126 in	15-8000 psi	Water	NV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in		0.169 in	15-6400 psi	Water	UV
1-1 NPS	1.5 NPS	0.226 in ²	0.537 in		0.169 in	15-6400 psi	Water	NV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in		0.212 in	15-1500 psi	Water	UV
1.5-1.5 NPS	2 NPS	0.357 in ²	0.675 in		0.212 in	15-1500 psi	Water	NV
2-2 NPS	2.5 NPS	0.567 in ²	0.85 in		0.266 in	15-1000 psi	Water	UV
2-2 NPS	2.5 NPS	0.567 in²	0.85 in		0.266 in	15-1000 psi	Water	NV
Design Name	e: 1900D-2, 1	1900-30D-2	_		NBCert #	# 18144		
Manufacturer/A	ssembler		D	esignato	rs	E	cpiration Date	
Assembler			U	V		11	/18/2027	
Design Type								
[Satety Relief Va Capacity Tests: S Method of Estab Certified Value: S Media - Test: Air Set Pressure De	Safety Relief Valve] 1900D-2, 1900-30D-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 5.630 PPH/PSIA; (alternate medium): 2.004 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop							

Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-4230 psi	Steam	NV, UV	
1-1.5 NPS	2-3 NPS	0.1279 in ²	[D] 0.674 in	0.066 in	15-6250 psi	Air	UV	
Design Name	e: 1900D-2, ²	1900-30D-2	LA & DALA (Liq	uids) NBCert <i>‡</i>	ŧ 18751			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date	н	
Assembler			UV, V		11,	/18/2027		
Design Type								
[Relief Valve] 1900D-2, 1900-30D-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 3.256 GPM/SQ.RT. PSID Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2 - 3 NPS	0.1279 in²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V	
Design Name	e: 1900-DM-I	D		NBCert ‡	¢ 19088			
Manufacturer/A	ssembler		Designato	ors	Ex	piration Date		
Assembler			UV		11	/18/2027		
Design Type								
[Safety Relief Valve] 1900-DM-D HolderDesignation: Capacity Tests: Sec. UV at National Board Testing Lab on March 18, 2010 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 1.991 SCFM/PSIA; (alternate medium): 3.256 GPM/SQ.RT. PSID; Certification Provisions: Multiple Media (Code Case 2787) Media - Test: Air/Gas, Water/Liquid; Certified: Air, Gas, Liquid Set Pressure Definition(1): Pop; (2): First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Destinction for the Advent of (DE I)								
Designed by: Dr	guration: Restricted L esser, LLC {DRJ}	.ιπ						
Inlet Size	guration: Restricted L esser, LLC {DRJ} Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
Inlet Size	Outlet Size	Flow Area 0.1279 in ²	Orifice [designator] dia. [D] 0.674 in	Lift 0.067 in	Set Pressure Range 15-10000 psi	Media Air	Designator UV	
Inlet Size 1-1.5 NPS Design Name	Outlet Size 2 - 3 NPS : 1900-DM-I	Flow Area 0.1279 in ²	Orifice [designator] dia. [D] 0.674 in	Lift 0.067 in NBCert #	Set Pressure Range 15-10000 psi # 19099	Media Air	Designator UV	
Inlet Size 1-1.5 NPS Design Name Manufacturer/A	Outlet Size 2 - 3 NPS : 1900-DM-I ssembler	Flow Area 0.1279 in ²	Orifice [designator] dia. [D] 0.674 in Designato	Lift 0.067 in NBCert #	Set Pressure Range 15-10000 psi # 19099 Ex	Media Air piration Date	Designator UV	

Design Type								
[Safety Relief HolderDesign Capacity Test Method of Es Certified Valu Media - Test: Set Pressure Blowdown Ch Flow Area Co Designed by:	Valve] 1900-DM-E ation: s: Sec. UV at Nationa tablishing Relieving C e: 3.558 SCFM/PSIA Air/Gas, Water/Liquid Definition(1): Pop; (2 haracteristics: Fixed nfiguration: Restricte Dresser, LLC {DRJ}	al Board Testing L Capacity: Flow Ca ; (alternate mediu d; Certified: Air, G 2): First Steady S d Lift	ab on March 10, 2010 pacity, Slope im): 5.798 GPM/SQ.f as, Liquid tream	0 RT. PSID; Cerl	tification Provisions: Mult	iple Media (C	ode Case 2787)	
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	

1-1.5 NPS	2 - 3 NPS	0.2279 in²	[E] 0.674 in	0.105 in	15-10000 psi	Air	UV		
Design Name	e: 1900E-2, ²	1900-30E-2		NBCert	# 18166				
Manufacturer/A	ssembler		Designate	ors	Ex	piration Date			
Assembler			UV		11	/18/2027			
Design Type									
[Safety Relief Va Capacity Tests: 3 Method of Estab Certified Value: 1 Media - Test: Ai Set Pressure De Blowdown Chara Flow Area Config Designed by: Dr	[Safety Relief Valve] 1900E-2, 1900-30E-2 Capacity Tests: Sec. NV, UV at Dresser, Inc. on August 16, 1977 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value:10.040 PPH/PSIA; (alternate medium): 3.570 SCFM/PSIA Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-4230 psi	Steam	NV, UV		
1-1.5 NPS	2-3 NPS	0.2279 in ²	[E] 0.674 in	0.119 in	15-6250 psi	Air	NV, UV		

Design Name: 1900E-2, 1900-30E-2 LA & DALA (Liquids) NBCert # 1876

Manufacturer/A	ssembler			Designators			Expiration Date			
Assembler				UV, V			11/18/2	2027		
Design Type										
[Relief Valve] 19 Capacity Tests: 5 Method of Establ Certified Value: 5 Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Dra	Relief Valve] 1900E-2, 1900-30E-2 LA & DALA (Liquids) Capacity Tests: Sec. NV, UV, V at Dresser, Inc. on July 12, 1995 Aethod of Establishing Relieving Capacity: Flow Capacity, Flow Factor Certified Value: 5.798 GPM/SQ.RT. PSID Aedia - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift Designed by: Dresser, LLC {DRJ}									
Inlet Size	Outlet Size	Flow Area	Orifice [designat	or] dia.	Lift	S R	et Pressure lange	Me	edia	Designator
1-1.5 NPS	2 - 3 NPS	0.2279 in ²	[E] 0.674 i	in	0.093 in	1;	5-6250 psi	Wa	ater	NV, UV, V

Valvulas Nacional S. A. (VNS)

Rubi (Barcelona), 08191Spain

This Company Manufactures or Assembles:

Design Name	e: 5100			NBCert #	# 96173				
Manufacturer/A	ssembler		Designato	Designators			Expiration Date		
Manufacturer			UV	UV			01/18/2028		
Design Type									
[Safety Relief Valve] 5100 Capacity Tests: Sec. UV at National Board Testing Lab on July 27, 2021 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.864 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Valvulas Nacional S. A. {VNS}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 NPS	0.75-1 NPS	0.048 in ²	[C] 0.248 in	0.071 in	15-6237 psi	Air	UV		
0.5-1 NPS	0.75-1 NPS	0.048 in ²	[C] 0.248 in	0.071 in	15-2900 psi	Steam	UV		
0.5-1 NPS	1 NPS	0.122 in ²	[D] 0.394 in	0.118 in	15-4206 psi	Air	UV		
0.5-1 NPS	1 NPS	0.122 in ²	[D] 0.394 in	0.118 in	15-2900 psi	Steam	UV		
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.15 in	15-2900 psi	Air	UV		
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.15 in	15-2900 psi	Steam	UV		
Design Name	e: 5100 (Liqu	id)		NBCert #	# 96184	l.			
Manufacturer/A	ssembler		Designato	Designators			Expiration Date		
Manufacturer			UV	UV			01/18/2028		
Design Type									
[Safety Relief Va Capacity Tests: S Method of Estab Certified Value: O Media - Test: Wa Set Pressure De Blowdown Chara Flow Area Config Designed by: Va	[Safety Relief Valve] 5100 (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on May 19, 2021 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.750 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Valvulas Nacional S. A. //NS)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 NPS	0.75-1 NPS	0.048 in ²	[C] 0.248 in	0.087 in	15-6237 psi	Water	UV		
0.5-1 NPS	1 NPS	0.122 in ²	[D] 0.394 in	0.138 in	15-4206 psi	Water	UV		
0.75-1 NPS	1 NPS	0.196 in ²	[E] 0.5 in	0.177 in	15-2900 psi	Water	UV		

Design Name: 6400	NBCert # 960	16
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	03/05/2026

Design Type

[Safety Relief Valve] 6400

Capacity Tests: Sec. UV at National Board Testing Lab on October 1, 2013 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.873 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition: Initial Audible Discharge Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift

Designed by: Valvulas Nacional S. A. {VNS}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2, 3 NPS	0.122 in ²	[D] 0.394 in	0.157 in	15-6004 psi	Air	UV
1-1.5 NPS	2, 3 NPS	0.122 in ²	[D] 0.394 in	0.157 in	15-2900 psi	Steam	UV
1-1.5 NPS	2, 3 NPS	0.222 in ²	[E] 0.531 in	0.157 in	15-6004 psi	Air	UV
1-1.5 NPS	2, 3 NPS	0.222 in ²	[E] 0.531 in	0.157 in	15-2900 psi	Steam	UV
1.5 NPS	2, 3 NPS	0.352 in ²	[F] 0.669 in	0.276 in	15-5003 psi	Air	UV
1.5 NPS	2, 3 NPS	0.352 in ²	[F] 0.669 in	0.276 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.563 in ²	[G] 0.846 in	0.354 in	15-3698 psi	Air	UV
1.5-2 NPS	3 NPS	0.563 in ²	[G] 0.846 in	0.354 in	15-2900 psi	Steam	UV
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.433 in	15-2755 psi	Air	UV
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.433 in	15-2775 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.407 in ²	[J] 1.339 in	0.512 in	15-2697 psi	Air	UV
2-3 NPS	3, 4 NPS	1.407 in ²	[J] 1.339 in	0.512 in	15-2697 psi	Steam	UV
3 NPS	4, 6 NPS	2.046 in ²	[K] 1.614 in	0.551 in	15-2219 psi	Air	UV
3 NPS	4, 6 NPS	2.046 in ²	[K] 1.614 in	0.551 in	15-2219 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.166 in ²	[L] 2.008 in	0.63 in	15-1494 psi	Air	UV
3-4 NPS	4, 6 NPS	3.166 in ²	[L] 2.008 in	0.63 in	15-1494 psi	Steam	UV
4 NPS	6 NPS	4.025 in ²	[M] 2.264 in	0.748 in	15-1102 psi	Air	UV
4 NPS	6 NPS	4.025 in ²	[M] 2.264 in	0.748 in	15-1102 psi	Steam	UV
4 NPS	6 NPS	4.986 in ²	[N] 2.52 in	0.787 in	15-1001 psi	Air	UV
4 NPS	6 NPS	4.986 in ²	[N] 2.52 in	0.787 in	15-1001 psi	Steam	UV
4 NPS	6 NPS	7.218 in ²	[P] 3.031 in	0.945 in	15-1001 psi	Air	UV
4 NPS	6 NPS	7.218 in ²	[P] 3.031 in	0.945 in	15-1001 psi	Steam	UV
6 NPS	8 NPS	12.174 in ²	[Q] 3.937 in	1.181 in	15-595 psi	Air	UV
6 NPS	8 NPS	12.174 in ²	[Q] 3.937 in	1.181 in	15-595 psi	Steam	UV
6 NPS	8, 10 NPS	17.53 in ²	[R] 4.724 in	1.339 in	15-305 psi	Air	UV
6 NPS	8, 10 NPS	17.53 in ²	[R] 4.724 in	1.339 in	15-305 psi	Steam	UV
8 NPS	10 NPS	28.497 in ²	[T] 6.024 in	1.654 in	15-305 psi	Air	UV
8 NPS	10 NPS	28.497 in ²	[T] 6.024 in	1.654 in	15-305 psi	Steam	UV

Design Nam	e: 6400 (Liqu	ıid)		NBCert	# 96027			
Manufacturer/A	ssembler		Designate	ors	E	xpiration Date	•	
Manufacturer			UV		0:	3/05/2026		
Design Type								
[Safety Relief Valve] 6400 (Liquid) Capacity Tests: Sec. UV at National Board Testing Lab on October 1, 2013 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.720 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Valvulas Nacional S. A. {VNS}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1-1.5 NPS	2, 3 NPS	0.122 in ²	[D] 0.394 in	0.071 in	15-6004 psi	Water	UV	
1-1.5 NPS	2, 3 NPS	0.222 in ²	[E] 0.531 in	0.209 in	15-6004 psi	Water	UV	
1.5 NPS	2, 3 NPS	0.352 in²	[F] 0.669 in	0.26 in	15-5003 psi	Water	UV	
1.5-2 NPS	3 NPS	0.563 in ²	[G] 0.846 in	0.394 in	15-3698 psi	Water	UV	
1.5-2 NPS	3 NPS	0.887 in²	[H] 1.063 in	0.512 in	15-2755 psi	Water	UV	
2-3 NPS	3, 4 NPS	1.407 in ²	[J] 1.339 in	0.551 in	15-2697 psi	Water	UV	
3 NPS	4, 6 NPS	2.046 in ²	[K] 1.614 in	0.63 in	15-2219 psi	Water	UV	
3-4 NPS	4, 6 NPS	3.166 in ²	[L] 2.008 in	0.787 in	15-1494 psi	Water	UV	
4 NPS	6 NPS	4.025 in ²	[M] 2.264 in	0.866 in	15-1102 psi	Water	UV	
4 NPS	6 NPS	4.986 in ²	[N] 2.52 in	0.906 in	15-1001 psi	Water	UV	
4 NPS	6 NPS	7.218 in ²	[P] 3.031 in	1.102 in	15-1001 psi	Water	UV	
6 NPS	8 NPS	12.174 in²	[Q] 3.937 in	1.22 in	15-595 psi	Water	UV	

Vinson Process Controls Company, LP (VIN)

17.53 in²

28.497 in²

[R] 4.724 in

[T] 6.024 in

Carrollton, TX 75007United States

8, 10 NPS

10 NPS

6 NPS

8 NPS

This Company Manufactures or Assembles:

Design Name:	243/249/443/449/546/843/849 49/8043/8049	0/943/5046/50 NBCert # 012	92
Manufacturer/Assem	nbler	Designators	Expiration Date
Assembler		UV	10/24/2024

1.535 in

1.929 in

15-305 psi

15-305 psi

UV

UV

Water

Water

[Pilot Operated Pressure Relief Valve] 243/249/443/449/546/843/849/943/5046/5049/8043/8049 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on August 8, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.357 in²	[F] 0.674 in	0.25 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.25 in	15-720 psi	Steam	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	15-10600 psi	Air	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.446 in	25-720 psi	Steam	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.637 in	15-720 psi	Steam	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-10600 psi	Air	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-720 psi	Steam	UV
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-10600 psi	Air	UV
4 NPS	6 NPS	7.645 in ²	[P] 3.12 in	1.62 in	15-720 psi	Steam	UV
6 NPS	8, 10 NPS	18.597 in²	[R] 4.866 in	2.435 in	15-10600 psi	Air	UV
6 NPS	8, 10 NPS	18.597 in²	[R] 4.866 in	2.435 in	15-720 psi	Steam	UV
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-10600 psi	Air	UV
8 NPS	10 NPS	30.582 in ²	[T] 6.24 in	3.12 in	15-720 psi	Steam	UV
Design Name	253/259/45	53/459/853/	/859/953/959/505	^{59/80} NBCert	# 01304		

iration Date

10/24/2024

lanufacturer/Assembler	Designators	Ехр

UV

Assembler

Design Type

[Pilot Operated Pressure Relief Valve] 253/259/453/459/853/859/953/959/5059/8053/8059

Capacity Tests: Sec. UV at unknown lab on July 31, 1997

Method of Establishing Relieving Capacity: Flow Capacity, K

Certified Value: 0.627 Unitless

Media - Test: Air/Gas; Certified: Air, Gas

Set Pressure Definition(1): Pop; (2): Initial Audible Discharge

Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot

Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.205 in ²	[D] 0.674 in	0.079 in	15-15000 psi	Air	UV
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-15000 psi	Air	UV
1.5 NPS	2, 3 NPS	0.831 in²	[G] 1.078 in	0.241 in	15-10600 psi	Air	UV
2 NPS	3 NPS	0.85 in²	[G] 1.38 in	0.191 in	15-15000 psi	Air	UV
2 NPS	3 NPS	1.312 in ²	[H] 1.38 in	0.295 in	15-15000 psi	Air	UV
3 NPS	4 NPS	3.043 in ²	[K] 2.055 in	0.461 in	15-10600 psi	Air	UV
3 NPS	3 NPS	2.132 in ²	[J] 2.055 in	0.323 in	15-10600 psi	Air	UV

4 NPS	6 NPS	4.729 in ²	[L] 3.12 in	0.477 in	15-10600 psi	Air	UV			
4 NPS	6 NPS	5.959 in ²	[M] 3.12 in	0.601 in	15-10600 psi	Air	UV			
4 NPS	6 NPS	7.188 in ²	[N] 3.12 in	0.725 in	15-10600 psi	Air	UV			
6 NPS	8, 10 NPS	18.294 in²	[Q] 4.866 in	1.185 in	15-10600 psi	Air	UV			
Design Name	Design Name: 263/269/463/469/566/863/869/963/969/506 6/5069									
Manufacturer/Assembler Designators Expiration Date										
Assembler			UV		10	/24/2024				
Design Type										
[Pilot Operated Pressure Relief Valve] 263/269/463/469/566/863/869/963/969/5066/5069 Capacity Tests: Sec. UV at Anderson Greenwood & Co. on July 30, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.860 Unitless Media - Test: Air/Gas; Certified: Air, Gas, Steam Set Pressure Definition(1): Pop; (2): Initial Audible Discharge Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP (AGC)										
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator			
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-10600 psi	Air	UV			
1-1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-720 psi	Steam	UV			
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-10600 psi	Air	UV			
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-720 psi	Steam	UV			
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-10600 psi	Air	UV			
3 NPS	4 NPS	6.733 in ²	2.928 in	1.62 in	15-720 psi	Steam	UV			
4 NPS	6 NPS	10.758 in²	3.701 in	2.035 in	15-10600 psi	Air	UV			
4 NPS	6 NPS	10.758 in ²	3.701 in	2.035 in	15-2220 psi	Steam	UV			
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-10600 psi	Air	UV			
6 NPS	8 NPS	23.328 in ²	5.45 in	3 in	15-720 psi	Steam	UV			
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-10600 psi	Air	UV			
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-720 psi	Steam	UV			
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-10600 psi	Air	UV			
8 NPS	10 NPS	36.605 in ²	6.827 in	3.755 in	15-720 psi	Steam	UV			
8 NPS	10 NPS	37.523 in ²	6.912 in	3.802 in	15-1480 psi	Air	UV			
8 NPS	10 NPS	37.523 in²	6.912 in	3.802 in	15-720 psi	Steam	UV			
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-1480 psi	Air	UV			
8 NPS	10 NPS	44.179 in ²	7.5 in	4.125 in	15-720 psi	Steam	UV			
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-10600 psi	Air	UV			
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-720 psi	Steam	UV			
Design Name: 443/449/546/843/849/943/949/5046/5049 (Liquids)										

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/24/2024

[Pilot Operated Pressure Relief Valve] 443/449/546/843/849/943/949/5046/5049(Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.767 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.357 in ²	[F] 0.674 in	0.21 in	15-7600 psi	Water	UV
1.5 NPS	2, 3 NPS	0.913 in ²	[H] 1.078 in	0.51 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.496 in ²	[J] 1.38 in	0.82 in	15-7600 psi	Water	UV
3 NPS	4 NPS	3.317 in ²	[L] 2.055 in	1.155 in	15-7600 psi	Water	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.62 in	15-7600 psi	Water	UV
6 NPS	8, 10 NPS	15.904 in²	[R] 4.5 in	2.435 in	15-7600 psi	Water	UV
8 NPS	10 NPS	28.274 in ²	[T] 6 in	3.12 in	15-7600 psi	Water	UV

Design Name:

/459/853/859/953/959/5059 (Liquids) N

0132

01326

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/24/2024

Design Type

[Pilot Operated Pressure Relief Valve] 453/459/853/859/953/959/5059 (Liquids) Capacity Tests: Sec. UV, V at Crosby Valve, LLC on August 5, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.491 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	UV
1-1.5 NPS	2 NPS	0.356 in ²	[E] 0.674 in	0.137 in	15-7600 psi	Water	V
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	UV
1-1.5 NPS	2 NPS	0.221 in ²	[D] 0.674 in	0.085 in	15-7600 psi	Water	V
1.5 NPS	2, 3 NPS	0.911 in²	[G] 1.078 in	0.264 in	15-7600 psi	Water	UV
1.5 NPS	2, 3 NPS	0.911 in²	[G] 1.078 in	0.264 in	15-7600 psi	Water	V
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.005 in ²	[G] 1.38 in	0.226 in	15-7600 psi	Water	V
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	UV
2 NPS	3 NPS	1.495 in ²	[H] 1.38 in	0.336 in	15-7600 psi	Water	V
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	UV
3 NPS	4 NPS	2.574 in ²	[J] 2.055 in	0.39 in	15-7600 psi	Water	V
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	UV
3 NPS	4 NPS	3.313 in ²	[K] 2.055 in	0.502 in	15-7600 psi	Water	V

4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	5.711 in ²	[L] 3 in	0.576 in	15-7600 psi	Water	V	
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	6.385 in ²	[M] 3 in	0.644 in	15-7600 psi	Water	V	
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	7.059 in ²	[N] 3 in	0.712 in	15-7600 psi	Water	V	
6 NPS	8, 10 NPS	15.885 in ²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	UV	
6 NPS	8, 10 NPS	15.885 in²	[Q] 4.5 in	1.029 in	15-7600 psi	Water	V	
Design Name	e: 463/469/5 (Liquids)	66/863/869	/963/969/5066/50	069 NBCert	# 01348			
Manufacturer/A	ssembler		Designate	ors	Ex	cpiration Date)	
Assembler			UV		10)/24/2024		
Design Type								
[Pilot Operated I Capacity Tests: Method of Estab Certified Value: Media - Test: W Set Pressure De Blowdown Chara Flow Area Confi Designed by: Er	[Pilot Operated Pressure Relief Valve] 463/469/566/863/869/963/969/5066/5069 (Liquids) Capacity Tests: Sec. UV at Crosby Valve, LLC on August 27, 1997 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.712 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP (AGC)							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
1.5 NPS	2 NPS	1.496 in ²	1.38 in	0.96 in	15-7600 psi	Water	UV	
2 NPS	3 NPS	2.895 in ²	1.92 in	1.155 in	15-7600 psi	Water	UV	
3 NPS	4 NPS	6.733 in²	2.928 in	1.315 in	15-7600 psi	Water	UV	
4 NPS	6 NPS	10.758 in²	3.701 in	2.035 in	15-7600 psi	Water	UV	
6 NPS	8 NPS	23.328 in²	5.45 in	3 in	15-7600 psi	Water	UV	
8 NPS	8 NPS	32.17 in ²	6.4 in	3.52 in	15-7600 psi	Water	UV	
8 NPS	10 NPS	44.179 in²	7.5 in	4.125 in	15-7600 psi	Water	UV	
10 NPS	14 NPS	72.006 in ²	9.575 in	5.35 in	15-7600 psi	Water	UV	
Design Name: 81, 81P, 83, 86 NBCert # 01089								
Manufacturer/Assembler Designators Expiration Date								
Assembler UV 10/24/2024								
Design Type								
[Safety Relief Valve] 81, 81P, 83, 86 Capacity Tests: Sec. UV at Phillips Petroleum on July 8, 1965 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.816 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop								

Blowdown Characteristics: Adjustable Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-2 NPS	.75 - 2 NPS	0.012 in ²	[-2] 0.125 in	0.05 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2 NPS	0.028 in ²	[-3] 0.188 in	0.06 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-10000 psi	Air	UV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-5000 psi	Air	NV
0.5-2 NPS	.75 - 2.5 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	20-720 psi	Steam	UV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-5000 psi	Air	NV
0.5-2 NPS	1 - 2.5 NPS	0.11 in ²	[-6] 0.375 in	0.12 in	20-9600 psi	Air	UV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-5000 psi	Air	NV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-6000 psi	Air	UV
0.75-2 NPS	1 - 2.5 NPS	0.196 in ²	[-8] 0.5 in	0.16 in	20-720 psi	Steam	UV
1.5 NPS	2 NPS	0.307 in ²	[F] 0.625 in	0.28 in	20-4040 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-6000 psi	Air	UV
1.5-2 NPS	2-3 NPS	0.503 in ²	[G] 0.8 in	0.34 in	20-720 psi	Steam	UV
1.5-2 NPS	3 NPS	0.785 in ²	[H] 1 in	0.41 in	20-2580 psi	Air	UV
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-1620 psi	Air	UV
2 NPS	3 NPS	1.287 in ²	[J] 1.28 in	0.46 in	20-720 psi	Steam	UV
Design Nam	ie: 81P (Liqui	ds)		NBCert	# 01102		
Manufacturer/	Assembler		Designat	ors	E	xpiration Date	3
Assembler			UV		1	0/24/2024	
Design Type							
[Relief Valve] 81P (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on November 26, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.720 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: 93% of pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed has Emergen Automation Solutions Final Central US LD (ACC)							
	0.41.4.5		Orifice		Set Pressure		
Inlet Size	Outlet Size	Flow Area	[designator] dia.	Lift	Range	Media	Designator
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-5000 psi	Water	NV
0.5-2 NPS	1 - 2 NPS	0.049 in ²	[-4] 0.25 in	0.09 in	50-6250 psi	Water	UV, V
0.75-2 NPS	1 - 2 NPS	0.11 in²	[-6] 0.375 in	0.13 in	50-6000 psi	Water	UV, V

0.16 in

0.16 in

0.34 in

0.46 in

50-5000 psi

50-6000 psi

50-6000 psi

50-1620 psi

0.75-2 NPS

0.75-2 NPS

1.5-2 NPS

2-2 NPS

1 - 2 NPS

1 - 2 NPS

2-3 NPS

3 NPS

0.196 in²

0.196 in²

0.503 in²

1.287 in²

[-8] 0.5 in

[-8] 0.5 in

[G] 0.8 in

[J] 1.28 in

NV

UV, V

UV, V

UV, V

Water

Water

Water

Water

Design Nam	e: 900 Serie	s (Liquid), 7	700, SNC	NBC	ert # 15499				
Manufacturer/A	Assembler		Designat	ors	ite				
Assembler			UV		1	0/24/2024			
Design Type	Design Type								
[Relief Valve] 9 Capacity Tests: Method of Estat Certified Value: Media - Test: W Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	[Relief Valve] 900 Series (Liquid), 7700, SNC Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 9, 1990 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.661 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP (AGC)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator		
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Water	NV		

0.074 in

0.106 in

0.106 in

0.128 in

0.128 in

0.17 in

0.17 in

0.265 in

0.215 in

0.215 in

0.274 in

0.274 in

Designators

UV

Water

Expiration Date

10/24/2024

15-10000 psi

15-10000 psi

15-10000 psi

15-10000 psi

15-10000 psi

15-5000 psi

UV, V

NV

NV

NV

NV

NV

0.5-1 NPS

0.5-1 NPS

0.5-1 NPS

0.5-1 NPS

0.5-1 NPS

1-1.5 NPS

1-1.5 NPS

1-1.5 NPS

1.5-2 NPS

1.5-2 NPS

1.5 NPS

1.5 NPS

Assembler

Design Type

Design Name:

Manufacturer/Assembler

Certified Value: 0.878 Unitless

.5 - 1 NPS

1 - 1.5 NPS

1 - 1.5 NPS

1 - 1.5 NPS

1 - 1.5 NPS

1.5 NPS

1.5 NPS

2 NPS

2 NPS

2.5 NPS

2.5 NPS

[Safety Relief Valve] 900 Series, 7700, SNC

1.5 - 2 NPS

0.0551 in²

0.0845 in²

0.0845 in²

0.1244 in²

0.1244 in²

0.2198 in²

0.2198 in²

0.2951 in²

0.3473 in²

0.3473 in²

0.5674 in²

0.5674 in²

Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on February 14, 1990

Method of Establishing Relieving Capacity: Flow Capacity, K

[#10] 0.265 in

[#5] 0.328 in

[#5] 0.328 in

[#6] 0.398 in

[#6] 0.398 in

[#7] 0.529 in

[#7] 0.529 in

[#8] 0.665 in

[#8] 0.665 in

[#9] 0.85 in

[#9] 0.85 in

0.613 in

Media - ; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV	
0.5-1 NPS	.5 - 1 NPS	0.0551 in²	[#10] 0.265 in	0.074 in	15-2900 psi	Steam	NV, UV	
0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Air	UV	

0.5-1 NPS	1 - 1.5 NPS	0.0845 in ²	[#5] 0.328 in	0.106 in	15-2900 psi	Steam	NV, UV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Air	UV
0.5-1 NPS	1 - 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-2900 psi	Steam	NV, UV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-2900 psi	Steam	NV, UV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Air	UV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-2900 psi	Steam	NV, UV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Air	UV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-2900 psi	Steam	NV, UV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Air	UV

Design Name: JLT/JLT-JDS (Liquids)	NBCert # 150	95
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/24/2024
Design Type		

[Safety Relief Valve] JLT/JLT-JDS (Liquids) Capacity Tests: Sec. NV, UV, V at Crosby Valve, LLC on February 5, 1980 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.656 Unities Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in²	[D] 0.398 in	0.151 in	15-6170 psi	Water	NV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.151 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.205 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.257 in	15-6170 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.5674 in²	[G] 0.85 in	0.328 in	15-6170 psi	Water	NV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.328 in	15-6170 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	NV
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.342 in	15-2500 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.8874 in²	[H] 1.063 in	0.41 in	15-3705 psi	Water	NV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.41 in	15-3705 psi	Water	UV, V
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	NV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.525 in	15-3705 psi	Water	UV, V
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	NV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.628 in	15-3705 psi	Water	UV, V
3 NPS	4-6 NPS	2.109 in ²	1.639 in	0.632 in	15-3705 psi	Water	NV, UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	NV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.782 in	15-3705 psi	Water	UV, V
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	NV

3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.878 in	15-2220 psi	Water	UV, V
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	NV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.964 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	NV
4 NPS	6 NPS	7.205 in ²	[P] 3.029 in	1.169 in	15-1480 psi	Water	UV, V
4 NPS	6 NPS	7.997 in ²	[P2] 3.191 in	1.232 in	15-1500 psi	Water	UV, V
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	1.539 in	15-1480 psi	Water	UV, V
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	1.852 in	15-1480 psi	Water	NV
6 NPS	8, 10 NPS	18.065 in²	[R] 4.796 in	1.852 in	15-1480 psi	Water	UV, V
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	NV
8 NPS	10, 12 NPS	29.359 in²	[T] 6.114 in	2.361 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in²	[T2] 6.33 in	2.444 in	15-740 psi	Water	UV, V
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	2.444 in	15-740 psi	Water	NV
Design Nam	e: JOS-E/JB E, 8400,	S-E/JOS-H AC/AB	-E/JBS-H-E/JOS·	-JDS- NBCert	# 15208		
Manufacturer/A	Assembler		Designate	ors	Ex	piration Date	•
Assembler			UV		10	/24/2024	
Design Type							
[Safety Relief Valve] JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-E, 8400, AC/AB Capacity Tests: Sec. NV, UV at Crosby Valve, LLC on April 1, 1975 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.865 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Nozzle/Full Lift							
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	Sec. NV, UV at Crost olishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S	by Valve, LLC o pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift polutions Final (con April 1, 1975 apacity, K team Control US LP {AGC}				
Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er	Sec. NV, UV at Crost blishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size	by Valve, LLC o pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift solutions Final (Flow Area	on April 1, 1975 apacity, K team Control US LP {AGC} Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS	Sec. NV, UV at Crosh blishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS	oy Valve, LLC o pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift solutions Final (Flow Area 0.1244 in ²	Control US LP {AGC} Orifice [designator] dia.	Lift 0.121 in	Set Pressure Range 15-15000 psi	Media Air	Designator NV, UV
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS	Sec. NV, UV at Crosh olishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	oy Valve, LLC o pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift solutions Final (Flow Area 0.1244 in ² 0.1244 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in	Lift 0.121 in 0.121 in	Set Pressure Range 15-15000 psi 15-2000 psi	Media Air Steam	Designator NV, UV NV, UV
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS	Sec. NV, UV at Crosh blishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	by Valve, LLC opacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift colutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.187 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in	Lift 0.121 in 0.121 in 0.151 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi	Media Air Steam Steam	Designator NV, UV NV, UV UV
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Sec. NV, UV at Crost blishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS 2 - 3 NPS	by Valve, LLC obacity: Flow Car ed: Air, Gas, St e (Single Ring) Lift solutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.187 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in	Lift 0.121 in 0.121 in 0.151 in 0.151 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-8490 psi	Media Air Steam Steam Air	Designator NV, UV NV, UV UV UV
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Sec. NV, UV at Crosh blishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	by Valve, LLC obacity: Flow Cared: Air, Gas, Stee (Single Ring) Lift colutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.187 in ² 0.187 in ² 0.2214 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in	Lift 0.121 in 0.121 in 0.151 in 0.151 in 0.165 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-3490 psi 15-15000 psi	Media Air Steam Steam Air Air	Designator NV, UV NV, UV UV UV UV UV
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Sec. NV, UV at Cross blishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certifue efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	by Valve, LLC opacity: Flow Car ed: Air, Gas, St e (Single Ring) Lift solutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.187 in ² 0.2214 in ² 0.2214 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in	Lift 0.121 in 0.121 in 0.151 in 0.151 in 0.165 in 0.165 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-8490 psi 15-15000 psi 15-2000 psi	Media Air Steam Steam Air Air Air	Designator NV, UV NV, UV UV UV NV, UV UV UV NV, UV
Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Sec. NV, UV at Crosh olishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	by Valve, LLC opacity: Flow Car ed: Air, Gas, St e (Single Ring) Lift solutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.1244 in ² 0.187 in ² 0.2214 in ² 0.2214 in ² 0.2214 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in 0.488 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in	Lift 0.121 in 0.121 in 0.151 in 0.151 in 0.165 in 0.165 in 0.207 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-8490 psi 15-15000 psi 15-15000 psi 15-2000 psi	Media Air Steam Steam Air Air Steam Air	Designator NV, UV NV, UV UV UV NV, UV
Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Sec. NV, UV at Crost bilishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	by Valve, LLC o pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift solutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.187 in ² 0.187 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in	Lift 0.121 in 0.121 in 0.121 in 0.151 in 0.151 in 0.165 in 0.165 in 0.207 in	Set Pressure 15-15000 psi 15-2000 psi 15-2000 psi 15-3000 psi 15-15000 psi 15-15000 psi 15-2000 psi	Media Air Steam Steam Air Air Steam Air Steam	Designator NV, UV NV, UV UV UV NV, UV
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS	Sec. NV, UV at Cross bilishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	by Valve, LLC o pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift folutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.1244 in ² 0.187 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in [G] 0.85 in	Lift 0.121 in 0.121 in 0.151 in 0.151 in 0.165 in 0.165 in 0.207 in 0.207 in 0.205 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-3490 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-2000 psi	Media Air Steam Steam Air Air Steam Air Steam Air	Designator NV, UV NV, UV UV UV NV, UV
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS	Sec. NV, UV at Cross bilishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	by Valve, LLC o pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift solutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.1244 in ² 0.187 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in 0.488 in 0.488 in 0.488 in [E] 0.531 in [E] 0.665 in [F] 0.665 in [G] 0.85 in [G] 0.85 in	Lift 0.121 in 0.121 in 0.151 in 0.151 in 0.165 in 0.165 in 0.207 in 0.207 in 0.265 in	Set Pressure 15-15000 psi 15-2000 psi 15-2000 psi 15-3490 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi	Media Air Steam Steam Air Steam Air Steam Air Steam Air	Designator NV, UV
Capacity Tests: Method of Estab Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	Sec. NV, UV at Cross blishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS	by Valve, LLC o pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift solutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.1244 in ² 0.187 in ² 0.2214 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ² 0.8874 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [F] 0.665 in [G] 0.85 in [G] 0.85 in [H] 1.063 in	Lift 0.121 in 0.121 in 0.151 in 0.151 in 0.165 in 0.207 in 0.207 in 0.265 in 0.265 in 0.331 in	Set Pressure Range 15-15000 psi 15-2000 psi 15-2000 psi 15-3490 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi	Media Air Steam Steam Air Steam Air Steam Air Steam Air	Designator NV, UV NV, UV UV UV NV, UV
Capacity Tests: Method of Estat Certified Value: Media - Test: Ai Set Pressure De Blowdown Char Flow Area Confi Designed by: Er Inlet Size 0.75-1.5 NPS 0.75-1.5 NPS 0.75-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1-1.5 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS 1.5-2 NPS	Sec. NV, UV at Cross bilishing Relieving Cap 0.865 Unitless ir/Gas, Steam; Certific efinition: Pop acteristics: Adjustable guration: Nozzle/Full merson Automation S Outlet Size 2 - 3 NPS 2 - 3 NPS 3 NPS 3 NPS	by Valve, LLC o pacity: Flow Ca ed: Air, Gas, St e (Single Ring) Lift iolutions Final (Flow Area 0.1244 in ² 0.1244 in ² 0.1244 in ² 0.187 in ² 0.187 in ² 0.2214 in ² 0.2214 in ² 0.3473 in ² 0.3473 in ² 0.5674 in ² 0.8874 in ²	Control US LP {AGC} Orifice [designator] dia. [D] 0.398 in [D] 0.398 in 0.488 in 0.488 in 0.488 in [E] 0.531 in [E] 0.531 in [F] 0.665 in [G] 0.85 in [G] 0.85 in [H] 1.063 in	Lift 0.121 in 0.121 in 0.121 in 0.151 in 0.151 in 0.165 in 0.165 in 0.207 in 0.207 in 0.265 in 0.265 in 0.331 in	Set Pressure 15-15000 psi 15-2000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-2000 psi 15-2000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-15000 psi 15-2000 psi	Media Air Steam Steam Air Air Steam Air Steam Air Steam Air Air	Designator NV, UV NV, UV

0.424 in

0.507 in

0.507 in

15-2000 psi

15-10000 psi

15-2000 psi

3, 4 NPS

4, 6 NPS

4, 6 NPS

2-3 NPS

3 NPS

3 NPS

1.453 in²

2.076 in²

2.076 in²

[J] 1.36 in

[K] 1.626 in

[K] 1.626 in

NV, UV

NV, UV

NV, UV

Steam

Steam

Air

Design Name:	JOS-E-RL/JBS-E-RL/JDS-E-F Lift version of cert 15208)	RL (Restricted NBCert # 010	45
Manufacturer/Assem	nbler	Designators	Expiration Date
Assembler		UV	10/23/2024

NPS 6 NPS 2.714 in² 1.859 in 0.601 in 15-3000 psi Air NV, UV 4 NPS 4, 6 NPS 3.221 in² [L] 2.025 in 0.631 in 15-2000 psi Steam NV, UV 4 NPS 4, 6 NPS 3.221 in² [L] 2.025 in 0.631 in 15-2000 psi Steam NV, UV 4 NPS 6 NPS 3.221 in² [L] 2.025 in 0.709 in 15-2000 psi Steam NV, UV 4 NPS 6 NPS 4.065 in² [M] 2.275 in 0.709 in 15-2000 psi Steam NV, UV 4 NPS 6 NPS 4.065 in² [M] 2.275 in 0.709 in 15-480 psi Steam NV, UV NPS 6 NPS 4.9 in² [M] 2.498 in 0.779 in 15-1480 psi Steam NV, UV NPS 6 NPS 5.444 in² 2.633 in 0.85 in 15-250 psi Air NV, UV NPS 6 NPS 7.206 in² [P] 3.029 in 0.945 in 15-480 psi Steam NV, UV NPS 6 NPS<
4 NPS4, 6 NPS3.221 n²[L] 2.025 in0.631 in15-2000 psiSteamNV, UV4 NPS4, 6 NPS3.221 n²[L] 2.025 in0.631 in15-5000 psiAirNV, UV4 NPS6 NPS4.065 n²[M] 2.275 in0.709 in15-2000 psiSteamNV, UV4 NPS6 NPS4.065 n²[M] 2.275 in0.709 in15-5000 psiAirNV, UVNPS6 NPS4.96 n²[N] 2.498 in0.779 in15-1480 psiSteamNV, UVNPS6 NPS4.9 in²[N] 2.498 in0.779 in15-3000 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS1.045 in²3.75 in1.243 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.937 in1.243 in15-250 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-250 psiAir
44 NPS4, 6 NPS3.221 in²[L] 2.025 in0.631 in15-5000 psiAirNV, UV44 NPS6 NPS4.065 in²[M] 2.275 in0.709 in15-2000 psiSteamNV, UV44 NPS6 NPS4.065 in²[M] 2.275 in0.709 in15-5000 psiAirNV, UV4 NPS6 NPS4.065 in²[M] 2.275 in0.709 in15-5000 psiAirNV, UVNPS6 NPS4.9 in²[N] 2.498 in0.779 in15-1480 psiSteamNV, UVNPS6 NPS4.9 in²[N] 2.498 in0.779 in15-3000 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-1000 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiSt
44 NPS6 NPS4.065 in²[M] 2.275 in0.709 in15-2000 psiSteamNV, UVNPS6 NPS4.065 in²[M] 2.275 in0.709 in15-5000 psiAirNV, UVNPS6 NPS4.9 in²[N] 2.498 in0.779 in15-1480 psiSteamNV, UVNPS6 NPS4.9 in²[N] 2.498 in0.779 in15-3000 psiAirNV, UVNPS6 NPS4.9 in²[N] 2.498 in0.779 in15-3000 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-3750 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiSteamNV, UV
44 NPS6 NPS4.065 in²[M] 2.275 in0.709 in15-5000 psiAirNV, UVNPS6 NPS4.9 in²[N] 2.498 in0.779 in15-1480 psiSteamNV, UVNPS6 NPS4.9 in²[N] 2.498 in0.779 in15-3000 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiSteamNV, UVNPS6 NPS5.444 in²2.633 in0.945 in15-2250 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-1000 psiSteamNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-3750 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-250 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiSteamNV, UV
NPS6 NPS4.9 in²[N] 2.498 in0.779 in15-1480 psiSteamNV, UVNPS6 NPS4.9 in²[N] 2.498 in0.779 in15-3000 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-1000 psiSteamNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-3750 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiSteamNV, UV
NPS6 NPS4.9 in²[N] 2.498 in0.779 in15-3000 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-1000 psiSteamNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-2250 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiSteamNV, UV
NPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiAirNV, UVNPS6 NPS5.444 in²2.633 in0.85 in15-2250 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-1000 psiSteamNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-3750 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiSteamNV, UV
NPS6 NPS5.444 in²2.633 in0.85 in15-250 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-1000 psiSteamNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-3750 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-250 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-250 psiSteamNV, UV
NPS6 NPS7.206 in²[P] 3.029 in0.945 in15-1480 psiSteamNV, UVNPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-1000 psiSteamNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-3750 psiAirNV, UVNPS8 NPS11.045 in²3.937 in1.243 in15-250 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-250 psiSteamNV, UV
NPS6 NPS7.206 in²[P] 3.029 in0.945 in15-3000 psiAirNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-1000 psiSteamNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-3750 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiSteamNV, UV
NPS8 NPS11.045 in²3.75 in1.243 in15-1000 psiSteamNV, UVNPS8 NPS11.045 in²3.75 in1.243 in15-3750 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS8 NPS12.174 in²3.937 in1.243 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiAirNV, UVNPS10 NPS12.236 in²3.947 in1.496 in15-2250 psiSteamNV, UV
NPS 8 NPS 11.045 in ² 3.75 in 1.243 in 15-3750 psi Air NV, UV NPS 8 NPS 12.174 in ² 3.937 in 1.243 in 15-2250 psi Air NV, UV NPS 8 NPS 12.174 in ² 3.937 in 1.243 in 15-2250 psi Air NV, UV NPS 10 NPS 12.236 in ² 3.947 in 1.496 in 15-2250 psi Air NV, UV NPS 10 NPS 12.236 in ² 3.947 in 1.496 in 15-2250 psi Air NV, UV
NPS 8 NPS 12.174 in ² 3.937 in 1.243 in 15-2250 psi Air NV, UV NPS 8 NPS 12.174 in ² 3.937 in 1.243 in 15-2250 psi Steam NV, UV NPS 10 NPS 12.236 in ² 3.947 in 1.496 in 15-2250 psi Air NV, UV NPS 10 NPS 12.236 in ² 3.947 in 1.496 in 15-2250 psi Air NV, UV
NPS 8 NPS 12.174 in ² 3.937 in 1.243 in 15-2250 psi Steam NV, UV NPS 10 NPS 12.236 in ² 3.947 in 1.496 in 15-2250 psi Air NV, UV NPS 10 NPS 12.236 in ² 3.947 in 1.496 in 15-2250 psi Air NV, UV
NPS 10 NPS 12.236 in ² 3.947 in 1.496 in 15-2250 psi Air NV, UV NPS 10 NPS 12.236 in ² 3.947 in 1.496 in 15-2250 psi Steam NV, UV
NPS 10 NPS 12.236 in ² 3.947 in 1.496 in 15-2250 psi Steam NV, UV
NPS 8 NPS 12.472 in ² [Q] 3.985 in 1.243 in 15-1480 psi Steam NV, UV
NPS 8 NPS 12.472 in ² [Q] 3.985 in 1.243 in 15-3000 psi Air NV, UV
NPS 8 NPS 15.288 in ² 4.412 in 1.414 in 15-2250 psi Air NV, UV
NPS 8 NPS 15.288 in ² 4.412 in 1.414 in 15-2250 psi Steam NV, UV
NPS 8, 10 NPS 18.065 in ² [R] 4.796 in 1.496 in 15-1480 psi Air NV, UV
NPS 8, 10 NPS 18.065 in ² [R] 4.796 in 1.496 in 15-1480 psi Steam NV, UV
NPS 10 NPS 18.254 in ² 4.821 in 1.907 in 15-2250 psi Air NV, UV
NPS 10 NPS 18.254 in ² 4.821 in 1.907 in 15-2250 psi Steam NV, UV
NPS 10 NPS 29.359 in ² [T] 6.114 in 1.907 in 15-740 psi Air NV, UV
NPS 10 NPS 29.359 in ² [T] 6.114 in 1.907 in 15-740 psi Steam NV, UV
NPS 10 NPS 31.47 in² [T2] 6.33 in 1.974 in 15-740 psi Air NV, UV
NPS 10 NPS 31.47 in ² [T2] 6.33 in 1.974 in 15-740 psi Steam NV, UV
0-12 NPS 14, 16 NPS 47.84 in² [V] 7.805 in 2.435 in 15-325 psi Air UV
0-12 NPS 14, 16 NPS 47.84 in² [V] 7.805 in 2.435 in 15-325 psi Steam UV
2-14 NPS 16. 20 NPS 78.08 in² [W] 9.971 in 3.111 in 15-325 psi Air UV
2-14 NPS 16. 20 NPS 78.08 in² [W] 9.971 in 3.111 in 15-325 psi Steam UV
IOS E PI / IBS E PI / IDS E PI (Postrictod

[Safety Relief Valve] JOS-E-RL/JBS-E-RL/JDS-E-RL (Restricted Lift version of cert 15208) Capacity Tests: Sec. UV at unknown lab on May 26, 2015 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.865 Unitless Media - Test: Air/Gas, Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop

Blowdown Characteristics: Adjustable (Single Ring) Flow Area Configuration: Restricted Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1.5 NPS	2 - 3 NPS	0.1244 in²	[D] 0.398 in	0.08 in	15-15000 psi	Air	UV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.08 in	15-2000 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.08 in	15-2000 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.187 in ²	0.488 in	0.08 in	15-8490 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.08 in	15-15000 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.08 in	15-2000 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.08 in	15-15000 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.08 in	15-2000 psi	Steam	UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.08 in	15-15000 psi	Air	UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.08 in	15-2000 psi	Steam	UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.099 in	15-15000 psi	Air	UV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.099 in	15-2000 psi	Steam	UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.127 in	15-10000 psi	Air	UV
2-3 NPS	3, 4 NPS	1.453 in ²	[J] 1.36 in	0.127 in	15-2000 psi	Steam	UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.152 in	15-10000 psi	Air	UV
3 NPS	4, 6 NPS	2.076 in ²	[K] 1.626 in	0.152 in	15-2000 psi	Steam	UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.18 in	15-1000 psi	Steam	UV
4 NPS	6 NPS	2.714 in ²	1.859 in	0.18 in	15-3000 psi	Air	UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.189 in	15-2000 psi	Steam	UV
3-4 NPS	4, 6 NPS	3.221 in ²	[L] 2.025 in	0.189 in	15-5000 psi	Air	UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.213 in	15-2000 psi	Steam	UV
3-4 NPS	6 NPS	4.065 in ²	[M] 2.275 in	0.213 in	15-5000 psi	Air	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.234 in	15-1480 psi	Steam	UV
4 NPS	6 NPS	4.9 in ²	[N] 2.498 in	0.234 in	15-3000 psi	Air	UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.255 in	15-2250 psi	Air	UV
4 NPS	6 NPS	5.444 in ²	2.633 in	0.255 in	15-2250 psi	Steam	UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.284 in	15-1480 psi	Steam	UV
4 NPS	6 NPS	7.206 in ²	[P] 3.029 in	0.284 in	15-3000 psi	Air	UV
6 NPS	8 NPS	11.045 in ²	3.75 in	0.373 in	15-1000 psi	Steam	UV
6 NPS	8 NPS	11.045 in ²	3.75 in	0.373 in	15-3750 psi	Air	UV
6 NPS	8 NPS	12.174 in ²	3.937 in	0.373 in	15-2250 psi	Air	UV
6 NPS	8 NPS	12.174 in ²	3.937 in	0.373 in	15-2250 psi	Steam	UV
6 NPS	10 NPS	12.236 in ²	3.947 in	0.449 in	15-2250 psi	Air	UV

6 NPS	10 NPS	12.236 in ²	3.947 in	0.449 in	15-2250 psi	Steam	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	0.373 in	15-1480 psi	Steam	UV
6 NPS	8 NPS	12.472 in ²	[Q] 3.985 in	0.373 in	15-3000 psi	Air	UV
6 NPS	8 NPS	15.288 in ²	4.412 in	0.424 in	15-2250 psi	Air	UV
6 NPS	8 NPS	15.288 in ²	4.412 in	0.424 in	15-2250 psi	Steam	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.449 in	15-1480 psi	Air	UV
6 NPS	8, 10 NPS	18.065 in ²	[R] 4.796 in	0.449 in	15-1480 psi	Steam	UV
8 NPS	10 NPS	18.254 in ²	4.821 in	0.572 in	15-2250 psi	Air	UV
8 NPS	10 NPS	18.254 in ²	4.821 in	0.572 in	15-2250 psi	Steam	UV
8 NPS	10 NPS	29.359 in ²	[T] 6.114 in	0.572 in	15-740 psi	Air	UV
8 NPS	10 NPS	29.359 in²	[T] 6.114 in	0.572 in	15-740 psi	Steam	UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	0.592 in	15-740 psi	Air	UV
8 NPS	10 NPS	31.47 in ²	[T2] 6.33 in	0.592 in	15-740 psi	Steam	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	0.731 in	15-325 psi	Air	UV
10-12 NPS	14, 16 NPS	47.84 in ²	[V] 7.805 in	0.731 in	15-325 psi	Steam	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	0.933 in	15-325 psi	Air	UV
12-14 NPS	16. 20 NPS	78.08 in ²	[W] 9.971 in	0.933 in	15-325 psi	Steam	UV

VRC Protx, LLC (RIL)

New Berlin, WI 53151United States

This Company Manufactures or Assembles:

Design Name: Kunkle 6000, 6252 Series NBCert # 36324								
Manufacturer/A	ssembler		Designat	ors	E	xpiration Date		
Assembler			UV, V		02	2/13/2025		
Design Type								
[Safety Valve] Kunkle 6000, 6252 Series Capacity Tests: Sec. UV, V at unknown lab on March 24, 1982 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Adjustable (Dual Ring) Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Air	UV	
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	V	
0.5-0.75 NPS	.75 NPS	0.121 in ²	[D] 0.393 in	0.094 in	15-300 psi	Steam	UV	
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Air	UV	
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	V	
0.75-1 NPS	1, 1.25 NPS	0.216 in ²	[E] 0.524 in	0.125 in	15-300 psi	Steam	UV	

1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Air	UV
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	V
1-1.25 NPS	1.25, 1.5 NPS	0.336 in ²	[F] 0.654 in	0.156 in	15-300 psi	Steam	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Air	UV
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	V
1.25-1.5 NPS	1.5, 2 NPS	0.554 in ²	[G] 0.84 in	0.2 in	15-300 psi	Steam	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Air	UV
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	V
1.5-2 NPS	2, 2.5 NPS	0.863 in ²	[H] 1.048 in	0.25 in	15-300 psi	Steam	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Air	UV
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	V
1.5-2.5 NPS	2 .5, 3 NPS	1.414 in ²	[J] 1.342 in	0.32 in	15-300 psi	Steam	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Air	UV
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	V
2-3 NPS	3 NPS	2.022 in ²	[K] 1.605 in	0.432 in	15-250 psi	Steam	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Air	UV
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	V
2.5-4 NPS	4 NPS	3.138 in ²	[L] 1.999 in	0.539 in	15-250 psi	Steam	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Air	UV
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	V
3-4 NPS	4 NPS	3.96 in ²	[M] 2.246 in	0.605 in	15-250 psi	Steam	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Air	UV
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	V
4 NPS	6 NPS	4.774 in ²	[N] 2.466 in	0.664 in	15-250 psi	Steam	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Air	UV
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	V
4 NPS	6 NPS	7.018 in ²	[P] 2.99 in	0.805 in	15-250 psi	Steam	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Air	UV
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	V
6 NPS	8 NPS	12.155 in ²	[Q] 3.935 in	1.06 in	15-250 psi	Steam	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Air	UV
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	V
6 NPS	8 NPS	17.6 in ²	[R] 4.735 in	1.276 in	15-250 psi	Steam	UV
Design Name	e: Kunkle 910) to 919		NBCert #	<i>‡</i> 36100		
Monufact	oo o walaa						
Manufacturer/A	ssempler		Designato	15	E	piration Date	
Assembler			UV		01	/29/2025	

Assembler

[Safety Relief Valve] Kunkle 910 to 919 Capacity Tests: Sec. UV at unknown lab on May 19, 1969 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.878 Unitless Media - Test: Steam; Certified: Air, Gas, Steam Set Pressure Definition: Pop Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift Designed by: Emerson Automation Solutions Final Control US LP {AGC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Air	UV
0.5-1 NPS	.75, 1 NPS	0.1213 in ²	[D] 0.393 in	0.106 in	15-1400 psi	Steam	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Air	UV
0.75-1.25 NPS	1.25 NPS	0.2157 in ²	[E] 0.524 in	0.142 in	15-1100 psi	Steam	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Air	UV
1-1.5 NPS	1.5 NPS	0.3369 in ²	[F] 0.655 in	0.177 in	15-1100 psi	Steam	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Air	UV
1.25-2 NPS	2 NPS	0.553 in ²	[G] 0.839 in	0.227 in	15-1100 psi	Steam	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Air	UV
1.5-2 NPS	2.5 NPS	0.864 in ²	[H] 1.049 in	0.283 in	15-1000 psi	Steam	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Air	UV
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	UV

Design Name:

NBCert #

3	а			
J	U			

	U.		

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/30/2024

Design Type

[Relief Valve] Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid) Capacity Tests: Sec. UV, V at unknown lab on May 8, 1985 Method of Establishing Relieving Capacity: Flow Capacity, K Certified Value: 0.710 Unitless Media - Test: Water/Liquid; Certified: Liquid Set Pressure Definition: First Steady Stream Blowdown Characteristics: Fixed Flow Area Configuration: Nozzle/Full Lift

Designed by: Emerson Automation Solutions Final Control US LP {AGC} **Set Pressure** Orifice Inlet Size **Outlet Size** Flow Area Lift Media Designator [designator] dia. Range 0.5-1 NPS .75, 1 NPS 0.1213 in² [D] 0.393 in 0.126 in 15-1400 psi Water UV, V 0.75-1.25 NPS 0.2157 in² Water UV, V 1.25 NPS [E] 0.524 in 0.168 in 15-1000 psi 1-1.5 NPS 1.5 NPS 0.3369 in² 0.21 in 15-700 psi Water UV, V [F] 0.655 in 1.25-2 NPS UV, V 2 NPS 0.553 in² [G] 0.839 in 0.268 in 15-600 psi Water 1.5-2 NPS 2.5 NPS 0.864 in² [H] 1.049 in 0.336 in 15-500 psi Water UV, V 2-2.5 NPS 3 NPS 1.415 in² [J] 1.342 in 0.429 in 15-500 psi Water UV, V

Zook Enterprises, LLC (ZOE)

Nameplate Abbreviation: ZOOK

Chagrin Falls, OH 44022United States

This Company Manufactures or Assembles:

Design Name	e: Inverted			NBCert ;	# 7601			
Manufacturer/A	ssembler		Designato	ors	1	Expiration Date		
Manufacturer			UD			05/27/2025		
Design Type								
[Rupture Disk D HolderDesignati Capacity Tests: : Method of Estab Certified Value: Media - Test: Ai Set Pressure De Flow Area Confi Designed by: Zo	[Rupture Disk Device] Inverted HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on May 27, 1998 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 0.640 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Zook Enterprises, LLC {ZOE}							
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator	
0.5 NPS		0.3 in ²			25-1500 psi		UD	
0.75 NPS		0.53 in ²			25-1500 psi		UD	
1 NPS		0.78 in ²			10-1500 psi		UD	
1 NPS		0.53 in ²	[San]		10-100 psi		UD	
1.5 NPS		1.37 in ²	[San]		7-100 psi		UD	
1.5 NPS		1.76 in ²			7-1000 psi		UD	
10 NPS		78.53 in ²			0.25-150 psi		UD	
12 NPS		113.09 in ²			0.25-150 psi		UD	
14 NPS		137.88 in ²			0.25-150 psi		UD	
16 NPS		182.65 in ²			0.25-150 psi		UD	
18 NPS		233.7 in ²			0.25-150 psi		UD	
2 NPS		3.14 in ²			3-750 psi		UD	
2 NPS		2.6 in ²	[San]		3-100 psi		UD	
2.5 NPS		4.23 in ²	[San]		2-75 psi		UD	
2.5 NPS		4.78 in ²			3-750 psi		UD	
20 NPS		291.03 in ²			0.25-150 psi		UD	
24 NPS		424.55 in ²			0.25-150 psi		UD	
3 NPS		6.25 in ²	[San]		2-75 psi		UD	
3 NPS		7.06 in ²			2-750 psi		UD	
3.5 NPS		9.62 in ²			1.5 - 500 psi		UD	
4 NPS		12.56 in ²			1.5-500 psi		UD	
4 NPS		11.18 in ²	[San]		1.5-60 psi		UD	
5 NPS		19.63 in²			1.5-500 psi		UD	

6 NPS		28.27 in ²				1-450 psi		UD
8 NPS		50.02 in ²				0.5-450 psi		UD
Design Name	: Mono				NBCert #	# 760	03	
Manufacturer/As	sembler		Designa	ators			Expiration Date	
Manufacturer			UD				05/27/2025	
Design Type								
[Rupture Disk Device] Mono HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on May 27, 1998 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 0.260 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Zook Enterprises, LLC {ZOE}								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift		Set Pressure Range	Media	Designator
0.5 NPS		0.3 in ²				25-150 psi		UD
0.75 NPS		0.53 in ²				25-150 psi		UD
1 NPS		0.78 in ²				10-150 psi		UD
1.5 NPS		1.76 in ²				7-150 psi		UD
10 NPS		78.53 in²				0.25-125 psi		UD
12 NPS		113.09 in ²				0.25-125 psi		UD
14 NPS		137.88 in ²				0.25-100 psi		UD
16 NPS		182.65 in²				0.25-100 psi		UD
18 NPS		233.7 in²				0.25-100 psi		UD
2 NPS		3.14 in ²				3-150 psi		UD
2.5 NPS		4.78 in ²				3-150 psi		UD
20 NPS		291.03 in ²				0.25-50 psi		UD
24 NPS		424.55 in ²				0.25-50 psi		UD
3 NPS		7.06 in ²				2-150 psi		UD
4 NPS		12.56 in ²				1.5-150 psi		UD
5 NPS		19.63 in ²				1.5-150 psi		UD
6 NPS		28.27 in ²				1-150 psi		UD
8 NPS		50.02 in ²				0.5-150 psi		UD
Design Name	· Mono W/B	Ring Vac. S	unnort			¥ 760.	47	

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	05/27/2025

Design Type									
[Rupture Disk Device] Mono W/Ring Vac. Support HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on May 27, 1998 Method of Establishing Relieving Capacity: Resistance Factor, 1 Size, Krg Certified Value: 6.440 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (KrgI) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Zook Enterprises, LLC {ZOE}									
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressur Range	e Media	Designator		
1 NPS		0.44 in ²			15-20 psi		UD		
Design Name	e: Mono Style	e W/Bar Va	cuum Support	NBC	Cert # 760)58			
Manufacturer/A	ssembler		Designat	ors		Expiration Date			
Manufacturer			UD			02/25/2026			
Design Type									
[Rupture Disk De HolderDesignatic Capacity Tests: S Method of Estab Certified Value: 2 Media - Test: Air Set Pressure De Flow Area Config Designed by: Zo	[Rupture Disk Device] Mono Style W/Bar Vacuum Support HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on December 16, 1999 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value: 2.400 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Zook Enterprises LL C (ZOE)								
Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressur Range	e Media	Designator		
1 NPS		0.6 in ²			10-150 psi		UD		
1.5 NPS		1.34 in²			7-150 psi		UD		
10 NPS		63.53 in ²			0.25-125 psi		UD		
12 NPS		89.09 in ²			0.25-125 psi		UD		
14 NPS		108.06 in ²			0.25-100 psi		UD		
16 NPS		144.52 in ²			0.25 - 100 psi		UD		
18 NPS		181.95 in ²			0.25-100 psi		UD		
2 NPS		2.39 in ²			3-150 psi		UD		
2.5 NPS		3.65 in ²			3-150 psi		UD		
20 NPS		233.28 in ²			0.25-50 psi		UD		
24 NPS		354.8 in ²			0.25-50 psi		UD		
3 NPS		5.56 in ²			2-150 psi		UD		
4 NPS		10.56 in ²			1.5-150 psi		UD		
5 NPS		15.88 in²			1.5-150 psi		UD		
6 NPS		22.27 in ²			1-150 psi		UD		
8 NPS		40.26 in ²			0.5-150 psi		UD		

Design Name: Mono Style W/Cross Vac. Su	pport NBCert # 760	36
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	03/24/2026
Design Type		
[Rupture Disk Device] Mono Style W/Cross Vac. Support HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on Nov Method of Establishing Relieving Capacity: Resistance Factor,	ember 20, 1998 3 Size, Krgl	

Certified Value: 5.400 Unitless

Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl)

Set Pressure Definition: Burst Pressure

Flow Area Configuration: MNFA

Designed by: Zook Enterprises, LLC {ZOE}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.47 in ²			10-150 psi		UD
1.5 NPS		1.05 in ²			7-150 psi		UD
10 NPS		50.78 in ²			0.25-125 psi		UD
12 NPS		69.09 in ²			0.25-125 psi		UD
14 NPS		83.31 in ²			0.25-100 psi		UD
16 NPS		112.6 in ²			0.25-100 psi		UD
18 NPS		153.7 in ²			0.25-100 psi		UD
2 NPS		1.86 in ²			3-150 psi		UD
2.5 NPS		2.94 in ²			3-150 psi		UD
20 NPS		184.5 in ²			0.25-50 psi		UD
24 NPS		294.1 in ²			0.25-50 psi		UD
3 NPS		4.31 in ²			2-150 psi		UD
4 NPS		8.81 in ²			1.5-150 psi		UD
5 NPS		12.7 in ²			1.5-150 psi		UD
6 NPS		17.27 in ²			1-150 psi		UD
8 NPS		31.82 in ²			0.5-150 psi		UD

Designators **Expiration Date** Manufacturer/Assembler UD Manufacturer 03/24/2026

Design Type

[Rupture Disk Device] Mono Style W/Plate Vac. Support HolderDesignation: N/A Capacity Tests: Sec. UD at National Board Testing Lab on April 22, 1999 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl Certified Value:15.700 Unitless Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl) Set Pressure Definition: Burst Pressure Flow Area Configuration: MNFA Designed by: Zook Enterprises, LLC {ZOE}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.32 in ²			10-150 psi		UD
1.5 NPS		0.72 in ²			7-150 psi		UD
10 NPS		32.66 in ²			0.25-125 psi		UD
12 NPS		47.24 in ²			0.25-125 psi		UD
14 NPS		58.07 in ²			0.25-100 psi		UD
16 NPS		84.49 in ²			0.25-100 psi		UD
18 NPS		104.31 in ²			0.25-100 psi		UD
2 NPS		1.3 in ²			3-150 psi		UD
2.5 NPS		2.04 in ²			3-150 psi		UD
20 NPS		122.49 in ²			0.25-50 psi		UD
24 NPS		190.61 in²			0.25-50 psi		UD
3 NPS		2.95 in ²			2-150 psi		UD
4 NPS		5.47 in ²			1.5-150 psi		UD
5 NPS		8.39 in ²			1.5-150 psi		UD
6 NPS		12.05 in ²			1-150 psi		UD
8 NPS		21.14 in ²			0.5-150 psi		UD