

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

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

MD Rocky View, AB T1X 0K3Canada

This Company Manufactures or Assembles:

Design Name: 1400 Series		NBCert # 38113	
Manufacturer/Assembler		Designators	Expiration Date
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] dia.	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: 81-100000 Series		NBCert # 38001	
Manufacturer/Assembler		Designators	Expiration Date
Assembler		UV	09/11/2024
Design Type			
[Safety Relief Valve] 81-100000 Series Capacity Tests: Sec. UV at unknown lab on November 21, 1984 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 3.100 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
0.75-1 NPS	1 - 2 NPS	0.212 in ²	0.52 in	0.19 in	15-3500 psi	Air	UV

Design Name: 81-100000L Liquids		NBCert # 38012	
Manufacturer/Assembler		Designators	Expiration Date
Assembler		UV	09/11/2024

Design Type

[Relief Valve] 81-100000L Liquids
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on July 20, 1990
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 5.150 GPM/SQ.RT. PSID
 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
0.75-1 NPS	1 NPS	0.212 in ²	0.52 in	0.19 in	15-3000 psi	Water	UV

Design Name: 81-200000 Series NBCert # 38023

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/11/2024

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: 8500 Series NBCert # 38102

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/11/2024

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: Mercer Valve Company, Incorporated {MVC}

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: 9100 NBCert # 38056

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/11/2024

Design Type

[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/Assembler	Designators	Expiration Date
Assembler	UV	09/11/2024

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 29728 United States

This Company Manufactures or Assembles:

Design Name:	10-321 (RVW32)	NBCert #	11035
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	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
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	11/17/2024

Design Type

[Safety Relief Valve] 10-407 & 10-408 (30 psig)
 Capacity Tests: Sec. HV at National Board Testing Lab (Picaway) on September 28, 1983
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value: 535.00 PPH
 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	0.307 in ²	0.625 in	0.26 in	30-30 psi	Steam	HV

Design Name: 10-417/418 (RVW40) NBCert # 11451

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer HV 09/27/2026

Design Type

[Safety Relief Valve] 10-417/418 (RVW40)
 Capacity Tests: Sec. HV at National Board Testing Lab on March 2, 1999
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 10.000 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	0.306 in ²	0.624 in	0.156 in	20-80 psi	Steam	HV

Design Name: 10-600 (RVW60) NBCert # 11091

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer HV 11/03/2024

Design Type

[Safety Relief Valve] 10-600 (RVW60)
 Capacity Tests: Sec. HV at National Board Testing Lab (Picaway) on June 18, 1987
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.630 Unitless
 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	0.535 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: 10-610 (RVW61) NBCert # 11103

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer HV 08/13/2024

Design Type

[Safety Relief Valve] 10-610 (RVW61)
 Capacity Tests: Sec. HV at National Board Testing Lab (Picaway) on June 3, 1987
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.739 Unitless
 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	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 in ²	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

Design Name: 119 Series NBCert # 11361

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV, V	09/29/2024

Design Type

[Safety Valve] 119 Series
 Capacity Tests: Sec. UV, V at National Board Testing Lab on March 5, 1997
 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: Aalberts Integrated Piping Systems Americas, Inc. {CNB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2.5 NPS	1.358 in	[J] 1.315 in	0.329 in	15-250 psi	Air	UV
1.5 NPS	2.5 NPS	1.358 in	[J] 1.315 in	0.329 in	15-250 psi	Steam	UV
1.5 NPS	2.5 NPS	1.358 in	[J] 1.315 in	0.329 in	15-250 psi	Steam	V
2-3 NPS	3 NPS	1.926 in ²	[K] 1.566 in	0.392 in	15-250 psi	Air	UV
2-3 NPS	3 NPS	1.926 in ²	[K] 1.566 in	0.392 in	15-250 psi	Steam	UV
2-3 NPS	3 NPS	1.926 in ²	[K] 1.566 in	0.392 in	15-250 psi	Steam	V
2.5-4 NPS	4 NPS	2.99 in ²	[L] 1.951 in	0.488 in	15-250 psi	Air	UV
2.5-4 NPS	4 NPS	2.99 in ²	[L] 1.951 in	0.488 in	15-250 psi	Steam	NV

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: 12-205 (RVS12) NBCert # 11114

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	11/16/2026

Design Type
 [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
 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 NPS	2 NPS	2.761 in ²	1.875 in	0.64 in	15-15 psi	Steam	HV

Design Name: 12-206 (RVS12) NBCert # 11125

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	07/23/2024

Design Type
 [Safety Valve] 12-206 (RVS12)
 Capacity Tests: Sec. HV at Ohio State University (Robinson Laboratory) on September 8, 1963
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:3529.0 PPH
 Media - Test: Steam; Certified: Steam
 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
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 (RVS12) NBCert # 11136

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	11/16/2026

Design Type

[Safety Valve] 12-208 (RVS12)
 Capacity Tests: Sec. HV at National Board Testing Lab (Picaway) on September 5, 1979
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:4100.0 PPH
 Media - Test: Steam; Certified: Steam
 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
3 NPS	3 NPS	6.56 in ²	2.89 in	0.42 in	15-15 psi	Steam	HV

Design Name: 13-101 (RVS13T) NBCert # 11147

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	11/17/2026

Design Type

[Safety Valve] 13-101 (RVS13T)
 Capacity Tests: Sec. HV at Ohio State University (Robinson Laboratory) on August 27, 1961
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:410.00 PPH
 Media - Test: Steam; Certified: Steam
 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		0.442 in ²	0.75 in	0.21 in	15-15 psi	Steam	HV

Design Name: 13-202 (RVS13) NBCert # 11169

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	03/24/2027

Design Type

[Safety Valve] 13-202 (RVS13)
 Capacity Tests: Sec. HV at Ohio State University (Robinson Laboratory) on June 19, 1962
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:643.00 PPH
 Media - Test: Steam; Certified: Steam
 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
1 NPS	1 NPS	0.442 in ²	0.75 in	0.37 in	15-15 psi	Steam	HV

Design Name: 13-211 (RVS13) NBCert # 11170

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	06/21/2026

Design Type

[Safety Valve] 13-211 (RVS13)
 Capacity Tests: Sec. HV at National Board Testing Lab (Picaway) on June 13, 1984
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:475.00 PPH
 Media - Test: Steam; Certified: Steam
 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	0.75 NPS	0.442 in ²	0.75 in	0.244 in	15-0 psi	Steam	HV

Design Name: 13-213 (RVS13) NBCert # 11181

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	11/17/2024

Design Type

[Safety Valve] 13-213 (RVS13)
 Capacity Tests: Sec. HV at National Board Testing Lab (Picaway) on May 13, 1973
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:1200.0 PPH
 Media - Test: Steam; Certified: Steam
 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
1.25 NPS	1.5 NPS	0.785 in ²	1 in	0.57 in	15-15 psi	Steam	HV

Design Name: 13-214 (RVS13) NBCert # 11192

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	11/17/2024

Design Type

[Safety Valve] 13-214 (RVS13)
 Capacity Tests: Sec. HV at National Board Testing Lab (Picaway) on May 13, 1973
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:1900.0 PPH
 Media - Test: Steam; Certified: Steam
 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
1.5 NPS	2 NPS	1.227 in ²	1.25 in	0.79 in	15-15 psi	Steam	HV

Design Name: 14-205 (RVS14) NBCert # 11215

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	11/16/2026

Design Type

[Safety Valve] 14-205 (RVS14)
 Capacity Tests: Sec. HV at Ohio State University (Robinson Laboratory) on January 29, 1965
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:3150.0 PPH
 Media - Test: Steam; Certified: Steam
 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
2 NPS	2 NPS	2.238 in ²	1.688 in	0.83 in	15-15 psi	Steam	HV

Design Name: 14-207 (RVS14) NBCert # 11237

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	02/09/2026

Design Type

[Safety Valve] 14-207 (RVS14)
 Capacity Tests: Sec. HV at Ohio State University (Robinson Laboratory) on January 29, 1965
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:6843.0 PPH
 Media - Test: Steam; Certified: Steam
 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
3-3 NPS	3 NPS	5.155 in ²	2.562 in	0.64 in	15-15 psi	Steam	HV

Design Name: 15-112 (RVA15) NBCert # 11248

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	07/31/2024

Design Type

[Safety Relief Valve] 15-112 (RVA15)
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on April 17, 1975
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.738 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 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
0.25 NPS			0.265 in		15-250 psi	Air	UV

Design Name: 15-115/117 (RVA15) NBCert # 11259

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	03/16/2028

Design Type

[Safety Relief Valve] 15-115/117 (RVA15)
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on September 6, 1979
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.849 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 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
0.375-0.5 NPS		0.145 in ²	0.43 in		15-250 psi	Air	UV

Design Name: 15-118 (RVA15) NBCert # 11372

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/28/2025

Design Type

[Safety Relief Valve] 15-118 (RVA15)
 Capacity Tests: Sec. UV at National Board Testing Lab on November 5, 1997
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 3.280 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 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		0.219 in ²	0.528 in	0.132 in	15-250 psi	Air	UV

Design Name: 15-119 (RVA15) NBCert # 11383

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/23/2025

Design Type

[Safety Relief Valve] 15-119 (RVA15)
 Capacity Tests: Sec. UV at National Board Testing Lab on November 5, 1997
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 6.780 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Nozzle/Full Lift
 Designed by: Aalberts Integrated Piping Systems Americas, Inc. {CNB}

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 (RVW17) NBCert # 11440

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	03/06/2027

Design Type

[Safety Relief Valve] 17-402 (RVW17)
 Capacity Tests: Sec. HV at National Board Testing Lab on March 2, 1999
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 5.200 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	0.75 NPS	0.173 in ²	0.47 in	0.117 in	75-150 psi	Steam	HV

Design Name: 29-102, 29-202, 29-302 NBCert # 11293

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV, V	11/17/2024

Design Type

[Safety Valve] 29-102, 29-202, 29-302
 Capacity Tests: Sec. UV, V at National Board Testing Lab (Picaway) on November 30, 1982
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 3.596 PPH/PSIA; (alternate medium): 1.280 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
0.375-0.75 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, 29-501 NBCert # 11305

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV, V	07/31/2024

Design Type

[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/Assembler	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 in ²	[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) NBCert # 11473

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	07/31/2027

Design Type

[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}

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	15-1000 psi	Water	UV
0.75-1 NPS	1.25 NPS	0.229 in ²	[E] 0.539 in	0.135 in	15-1000 psi	Water	UV
1-1.25 NPS	1.5 NPS	0.359 in ²	[F] 0.676 in	0.169 in	15-1000 psi	Water	UV
1.25-1.5 NPS	2 NPS	0.589 in ²	[G] 0.866 in	0.217 in	15-1000 psi	Water	UV
1.5-2 NPS	2.5 NPS	0.919 in ²	[H] 1.082 in	0.271 in	15-1000 psi	Water	UV
2 NPS	3 NPS	1.504 in ²	[J] 1.384 in	0.346 in	15-1000 psi	Water	UV

ADVANCE VALVE, INC. (ADV)

Nameplate Abbreviation: ADVANCE VALVE

St. Louis, MO 63026 United States

This Company Manufactures or Assembles:

Design Name: 437	NBCert # 37213	
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/06/2024

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 Name: 438 Sub Types 481, 439	NBCert # 37190	
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/17/2024

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 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: 438 Sub Types 481, 439, Liquids NBCert # 37202

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/11/2024

Design Type

[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 Name: 441/442/444 NBCert # 37044

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

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

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5,2 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 in ²	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 in ²	4.921 in	1.506 in	15-290 psi	Air	UV
6 NPS	10 NPS	19.021 in ²	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 in ²	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 in ²	11.614 in	3.554 in	15-175 psi	Air	UV
16 NPS	20 NPS	105.94 in ²	11.614 in	3.554 in	15-175 psi	Steam	UV

Design Name: 441/442/444 liquids NBCert # 37055

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/02/2027

Design Type

[Relief Valve] 441/442/444 liquids
Capacity Tests: Sec. UV at Leser GmbH & Co., KG on September 6, 1996
Method of Establishing Relieving Capacity: Flow Capacity, K
Certified Value: 0.521 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	1.5,2 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 in ²	11.614 in	3.554 in	15-175 psi	Water	UV

Design Name: 459/462 NBCert # 37112

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV 12/08/2026

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 # 37101

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV 12/08/2026

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

1-2 NPS 1.5-2 NPS 0.373 in² 0.689 in 0.159 in 15-1470 psi Water UV

Design Name: 483, 484, 485 (1") NBCert # 37145

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	07/06/2024
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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: 483, 484, 485 (1") Liquids NBCert # 37156

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	06/06/2024
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Design Type

[Relief Valve] 483, 484, 485 (1") Liquids
 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on January 8, 2001
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 2.960 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 NPS	1.5 NPS	0.157 in ²	0.512 in	0.098 in	15-232 psi	Water	UV

Design Name: 483, 484, 485 (1.5") NBCert # 37167

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	06/06/2024
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Design Type

[Safety Relief Valve] 483, 484, 485 (1.5")
 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on February 1, 2001
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 4.960 SCFM/PSIA; (alternate medium): 13.930 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
1.5 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: 483, 484, 485 (1.5") Liquids NBCert # 37178

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/15/2024

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 # 37022

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/20/2027

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 in ²	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 in² 3.622 in 1.035 in 20-232 psi Steam UV

Design Name: 488 (Liquids) NBCert # 37033

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/20/2027

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: 526 NBCert # 37224

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

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: 526 (Liquids)

NBCert #

37235

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

Design Type

[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	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	0.669 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: 560, 570 NBCert # 02080

Manufacturer/Assembler	Designators	Expiration Date
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: 901/902/911/912 NBCert # 08008

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/10/2024

Design Type

[Safety Relief Valve] 901/902/911/912
 Capacity Tests: Sec. UV at National Board Testing Lab on November 9, 2001
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.817 Unitless
 Media - Test: Air/Gas; Certified: Air, Gas, Steam
 Set Pressure Definition: Initial Audible Discharge
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Nozzle/Full Lift
 Designed by: ARI-Armaturen Albert Richter GmbH & Co. KG {ARI}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5, 2.0 NPS	0.617 in ²	0.886 in	0.22 in	30-493 psi	Air	UV
1 NPS	1.5, 2.0 NPS	0.617 in ²	0.886 in	0.22 in	30-493 psi	Steam	UV
1.25 NPS	2.0 NPS	1.024 in ²	1.142 in	0.29 in	30-493 psi	Air	UV
1.25 NPS	2.0 NPS	1.024 in ²	1.142 in	0.29 in	30-493 psi	Steam	UV
1.5 NPS	2, 2.5 NPS	1.024 in ²	1.142 in	0.29 in	30-493 psi	Air	UV
1.5 NPS	2, 2.5 NPS	1.024 in ²	1.142 in	0.29 in	30-493 psi	Steam	UV
1.5 NPS	2.5, 3.0 NPS	1.578 in ²	1.417 in	0.37 in	30-493 psi	Air	UV
1.5 NPS	2.5, 3.0 NPS	1.578 in ²	1.417 in	0.37 in	30-493 psi	Steam	UV
2 NPS	3 NPS	2.465 in ²	1.772 in	0.45 in	30-493 psi	Air	UV
2 NPS	3 NPS	2.465 in ²	1.772 in	0.45 in	30-493 psi	Steam	UV
2.5-3 NPS	4 NPS	4.166 in ²	2.303 in	0.61 in	30-406 psi	Air	UV
2.5-3 NPS	4 NPS	4.166 in ²	2.303 in	0.61 in	30-406 psi	Steam	UV
4 NPS	6 NPS	9.861 in ²	3.543 in	0.98 in	30-276 psi	Air	UV
4 NPS	6 NPS	9.861 in ²	3.543 in	0.98 in	30-276 psi	Steam	UV
5-6 NPS	8 NPS	13.678 in ²	4.173 in	1.34 in	30-392 psi	Air	UV
5-6 NPS	8 NPS	13.678 in ²	4.173 in	1.34 in	30-392 psi	Steam	UV
6 NPS	10 NPS	19.022 in ²	4.921 in	1.46 in	30-305 psi	Air	UV
6 NPS	10 NPS	19.022 in ²	4.921 in	1.46 in	30-305 psi	Steam	UV

Design Name: 901/902/911/912 {15-30} NBCert # 08031

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/10/2024

Design Type

[Safety Relief Valve] 901/902/911/912 {15-30}
Capacity Tests: Sec. UV at National Board Testing Lab on May 9, 2007
Method of Establishing Relieving Capacity: Flow Capacity, K
Certified Value: 0.769 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: ARI-Armaturen Albert Richter GmbH & Co. KG {ARI}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5, 2.0 NPS	0.394 in ²	0.709 in	0.205 in	15-30 psi	Air	UV
1 NPS	1.5, 2.0 NPS	0.394 in ²	0.709 in	0.205 in	15-30 psi	Steam	UV
1.25 NPS	2.0 NPS	1.024 in ²	1.142 in	0.29 in	15-30 psi	Air	UV
1.25 NPS	2.0 NPS	1.024 in ²	1.142 in	0.29 in	15-30 psi	Steam	UV
1.5 NPS	2, 2.5 NPS	1.024 in ²	1.142 in	0.29 in	15-30 psi	Air	UV
1.5 NPS	2, 2.5 NPS	1.024 in ²	1.142 in	0.29 in	15-30 psi	Steam	UV
1.5 NPS	2.5, 3.0 NPS	1.578 in ²	1.417 in	0.37 in	15-30 psi	Air	UV
1.5 NPS	2.5, 3.0 NPS	1.578 in ²	1.417 in	0.37 in	15-30 psi	Steam	UV
2 NPS	3 NPS	2.465 in ²	1.772 in	0.45 in	15-30 psi	Air	UV

2 NPS	3 NPS	2.465 in ²	1.772 in	0.45 in	15-30 psi	Steam	UV
2.5-3 NPS	4 NPS	4.166 in ²	2.303 in	0.61 in	15-30 psi	Air	UV
2.5-3 NPS	4 NPS	4.166 in ²	2.303 in	0.61 in	15-30 psi	Steam	UV
4 NPS	6 NPS	9.861 in ²	3.543 in	0.98 in	15-30 psi	Air	UV
4 NPS	6 NPS	9.861 in ²	3.543 in	0.98 in	15-30 psi	Steam	UV
5-6 NPS	8 NPS	13.678 in ²	4.173 in	1.34 in	15-30 psi	Air	UV
5-6 NPS	8 NPS	13.678 in ²	4.173 in	1.34 in	15-30 psi	Steam	UV
6 NPS	10 NPS	19.022 in ²	4.921 in	1.46 in	15-30 psi	Air	UV
6 NPS	10 NPS	19.022 in ²	4.921 in	1.46 in	15-30 psi	Steam	UV

Design Name: Kunkle 6000, 6252 Series

NBCert #

36324

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	05/27/2026

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: Kunkle 910 to 919 NBCert # 36100

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/29/2026

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: Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid) NBCert # 36111

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/29/2026

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}

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

Design Name: Series 740 NBCert # 02091

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/24/2026

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 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: Series 740 (Liquid) NBCert # 02103

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/24/2026

Design Type

[Safety Relief Valve] Series 740 (Liquid)
 Capacity Tests: Sec. UV at National Board Testing Lab on November 20, 2012
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.791 Unitless
 Media - Test: Water/Liquid; Certified: Liquid
 Set Pressure Definition: First Steady Stream
 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 in ²	[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) Nameplate Abbreviation: AHA

Biberach/Riss, 88400Germany

This Company Manufactures or Assembles:

Design Name: 33551 and 33651 NBCert # 00639

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	01/06/2028

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.	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 (Liquid) NBCert # 00640

Manufacturer/Assembler**Designators****Expiration Date**

Manufacturer

UV

01/06/2028

Design Type

[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

This Company Manufactures or Assembles:

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 Name: 1811, 1511

NBCert # 18122

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	02/17/2027

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 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 & DALA (Liquids) NBCert # 18784

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/17/2027

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 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: 1900, 1900-30, 1900-35 NBCert # 18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/17/2027

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 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
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: 1900, 1900-30, 1900-35 (R.L.) NBCert # 18223

Manufacturer/Assembler	Designators	Expiration 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
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 in ²	[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
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 # 18144

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/17/2027

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: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/17/2027

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/17/2027

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	02/17/2027

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: 19110M & 19110H (Liquids) NBCert # 19077

Manufacturer/Assembler**Designators****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/Assembler**Designators****Expiration Date**

Assembler UV, V 06/26/2027

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: Kunkle 920, 921, 927, Agco A (High Temp. water) NBCert # 36098

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	V	12/11/2026
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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
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	V

Allied Valve, Inc. (TPW)

Appleton, WI 54913 United States

This Company Manufactures or Assembles:

Design Name: 1700 & 2700 NBCert # 18100

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

Design Type

[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 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. # 18100) NBCert # 18111

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

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 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 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 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

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 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 & DALA (Liquids) NBCert # 18784

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

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 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: 1900, 1900-30, 1900-35 NBCert # 18201

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 in ²	[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

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/Assembler	Designators	Expiration Date
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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

Design Name: 19000 Series, Liquid NBCert # 18717

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/20/2024

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: 1982 NBCert # 18379

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/10/2027

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, 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: 1982 LS, 820000LS NBCert # 18380

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/20/2024

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: 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 in ²	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: 3900 (39PV, 39MV pilots, liquid) NBCert # 18458

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

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 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

Design Name: C776

NBCert # 36425

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 # 36324

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	12/15/2027

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: Kunkle 910 to 919 NBCert # 36100

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

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: Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid) NBCert # 36111

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

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}

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

Applied Control Equipment, LLLP (APP) Nameplate Abbreviation: Applied Control

Commerce City, CO 80022 United States

This Company Manufactures or Assembles:

Design Name: 243/249/443/449/546/843/849/943/5046/5049/8043/8049 NBCert # 01292

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

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 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: 253/259/453/459/853/859/953/959/5059/8053/8059 NBCert # 01304

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

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 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: 263/269/463/469/566/863/869/963/969/5066/5069 NBCert # 01315

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: 443/449/546/843/849/943/949/5046/5049 (Liquids) NBCert # 01337

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/06/2025

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

Design Name: 453/459/853/859/953/959/5059 (Liquids) NBCert # 01326

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

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 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 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: 463/469/566/863/869/963/969/5066/5069 (Liquids) NBCert # 01348

Manufacturer/Assembler	Designators	Expiration Date
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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
 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/Assembler	Designators	Expiration Date
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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) NBCert # 01102

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

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 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 in ²	[#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	Designators	Expiration Date
Assembler	UV	02/05/2025

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 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#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 # 15095

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/06/2025

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 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-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABLNBCert # 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 in ²	[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-E, 8400, AC/AB NBCert # 15208

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 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

Applied Valve Technology, Inc. (AVT)

Nameplate Abbreviation: A.V.T.

Chattanooga, TN 37406 United States

This Company Manufactures or Assembles:

Design Name:	Kunkle 6000, 6252 Series	NBCert #	36324
Manufacturer/Assembler	Designators	Expiration 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 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 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid) NBCert # 36111

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/20/2024

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}

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

Elburn, IL 60119 United States

This Company Manufactures or Assembles:

Design Name:	120, 121, 125, 126	NBCert #	02068
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/26/2024

Design Type

[Safety Relief Valve] 120, 121, 125, 126
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on February 3, 1982
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.037 SCFM/PSIA; (alternate medium): 2.910 PPH/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas, Steam
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Aquatrol, Incorporated {AQT}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, top NPS		0.75 in	0.045 in	15-200 psi	Air	UV
0.5-1 NPS	.75, top NPS		0.75 in	0.045 in	15-200 psi	Steam	UV

Design Name:	130, 132, 133, 135	NBCert #	02079
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/26/2024

Design Type

[Safety Relief Valve] 130, 132, 133, 135
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on October 15, 1980
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.403 SCFM/PSIA; (alternate medium): 1.130 PPH/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas, Steam
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Aquatrol, Incorporated {AQT}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.25-0.5 NPS	.5, Top NPS		0.5 in	0.024 in	15-200 psi	Air	UV
0.25-0.5 NPS	.5, Top NPS		0.5 in	0.024 in	15-200 psi	Steam	UV

Design Name:	140-A	NBCert #	02114
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	02/22/2025

Design Type

[Safety Relief Valve] 140-A
 Capacity Tests: Sec. UV at National Board Testing Lab on August 20, 2018
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.924 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Aquatrol, Incorporated {AQT}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.25-0.5 NPS		0.0604 in ²	0.281 in	0.09 in	15-450 psi	Air	UV

Design Name: 140-B NBCert # 02125

Manufacturer/Assembler**Designators****Expiration Date**

Manufacturer UV Expiration Date 02/22/2025

Design Type

[Safety Relief Valve] 140-B
 Capacity Tests: Sec. UV at National Board Testing Lab on August 20, 2018
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.487 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Aquatrol, Incorporated {AQT}

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: 560, 570 NBCert # 02080

Manufacturer/Assembler**Designators****Expiration Date**

Manufacturer UV, V Expiration Date 01/19/2028

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: 88A, 89A NBCert # 02002

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/26/2024

Design Type
 [Safety Relief Valve] 88A, 89A
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on October 15, 1980
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.644 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Aquatrol, Incorporated {AQT}

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: 88B, 89B NBCert # 02013

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/26/2024

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
 Designed by: Aquatrol, Incorporated {AQT}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS	1 NPS		0.75 in	0.04 in	15-250 psi	Air	UV

Design Name: 88C, 89C NBCert # 02024

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/26/2024

Design Type

[Safety Relief Valve] 88C, 89C
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on October 14, 1980
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 2.274 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Aquatrol, Incorporated {AQT}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.25 NPS		1 in	0.075 in	15-250 psi	Air	UV

Design Name: 88D, 89D NBCert # 02035

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/26/2024

Design Type

[Safety Relief Valve] 88D, 89D
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on October 14, 1980
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 3.504 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Aquatrol, Incorporated {AQT}

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: 88E, 89E NBCert # 02046

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/26/2024

Design Type

[Safety Relief Valve] 88E, 89E
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on October 14, 1980
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 4.900 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Aquatrol, Incorporated {AQT}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2 NPS		1.5 in	0.1 in	15-250 psi	Air	UV

Design Name: 88F, 89F NBCert # 02057

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/26/2024

Design Type

[Safety Relief Valve] 88F, 89F
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on October 14, 1981
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 7.404 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Aquatrol, Incorporated {AQT}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
2 NPS	2.5 NPS		2 in	0.12 in	15-250 psi	Air	UV

Design Name: Series 740 NBCert # 02091

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	02/11/2025

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 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: Series 740 (Liquid) NBCert # 02103

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 02/11/2025

Design Type

[Safety Relief Valve] Series 740 (Liquid)
 Capacity Tests: Sec. UV at National Board Testing Lab on November 20, 2012
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.791 Unitless
 Media - Test: Water/Liquid; Certified: Liquid
 Set Pressure Definition: First Steady Stream
 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 in ²	[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

ARI - Armaturen USA, LP (TAR)

Webster, TX 77598 United States

This Company Manufactures or Assembles:

Design Name: Reyco R, RB & RO (Fig. 971, 973, 974) NBCert # 73000

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 01/19/2027

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 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: Reyco R, RB, RO, RBO (Fig. 971, 973, 974) (liquid) NBCert # 73011

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer	UV	11/25/2026
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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: 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, 2.5, 3 NPS	0.122 in ²	[D] 0.394 in	0.12 in	15-6250 psi	Water	UV
1-1.5 NPS	2, 2.5, 3 NPS	0.217 in ²	[E] 0.526 in	0.16 in	15-6250 psi	Water	UV
1.5 NPS	2 - 3 NPS	0.34 in ²	[F] 0.658 in	0.2 in	15-6250 psi	Water	UV
1.5-2 NPS	2.5, 3 NPS	0.558 in ²	[G] 0.843 in	0.26 in	15-4905 psi	Water	UV

1.5-2 NPS	3 NPS	0.869 in ²	[H] 1.052 in	0.32 in	15-3300 psi	Water	UV
2-3 NPS	3, 4 NPS	1.427 in ²	[J] 1.348 in	0.41 in	15-3300 psi	Water	UV
3 NPS	4, 6 NPS	2.036 in ²	[K] 1.61 in	0.49 in	15-3300 psi	Water	UV
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Water	UV
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: RL14 & RLO14 (0.394 in. orifice) NBCert # 73202

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/21/2026

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: RL14 & RLO14 (0.394 in. orifice) (Liquid) NBCert # 73213

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/21/2026

Design Type

[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
 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	15-5000 psi	Water	UV

Design Name: RL40, RLO40, RL41, RLO41 (0.547 in. orifice), Design Rev. A NBCert # 73224

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/29/2026

Design Type

[Safety Relief Valve] RL40, RLO40, RL41, RLO41 (0.547 in. orifice), Design Rev. A
 Capacity Tests: Sec. UV at National Board Testing Lab on March 4, 2014
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 3.760 SCFM/PSIA; (alternate medium): 10.560 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
1-1.5 NPS	1.5, 2 NPS	0.235 in ²	0.547 in	0.137 in	15-2900 psi	Steam	UV
1-1.5 NPS	1.5, 2 NPS	0.235 in ²	0.547 in	0.137 in	15-3000 psi	Air	UV

ARI-Armaturen Albert Richter GmbH & Co. KG (ARI) Nameplate Abbreviation: ARI

Schloss Holte-Stukenbrock, 33758Germany

This Company Manufactures or Assembles:

Design Name: Reyco R, RB & RO (Fig. 971, 973, 974) NBCert # 73000

Manufacturer/Assembler	Designators	Expiration Date
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 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

AWC, Inc. (AWI)

Baton Rouge, LA 70809 United States

This Company Manufactures or Assembles:

Design Name: 2400	NBCert # 57451
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/26/2026

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

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 in ²	[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 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 in ²	[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 Name: 2600L (Air & Steam)

NBCert # 57260

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

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 in ²	[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 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 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV

Design Name: 2600L (Liquids) NBCert # 57068

Manufacturer/Assembler	Designators	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 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 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 NBCert # 57237

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

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

Manufacturer/Assembler	Designators	Expiration 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
 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

Design Name: 3800

NBCert # 57024

Manufacturer/Assembler**Designators****Expiration 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 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 in ²	[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 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
Assembler	UV	03/18/2025

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 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 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 in ²	[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
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Assembler UV 03/18/2025

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 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 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: 4200 / 4400 NBCert # 57282

Manufacturer/Assembler	Designators	Expiration Date
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Assembler V 05/27/2026

Design Type

[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

Design Name: 6400/6600 (previously 2500 & 4600) NBCert # 57046

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 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 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 70669 United States

This Company Manufactures or Assembles:

Design Name: 2600 & 2600S

NBCert # 57057

Manufacturer/Assembler

Designators

Expiration Date

Assembler

UV

04/02/2025

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 in ²	[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 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 in ²	[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 Name: 2600L (Air & Steam) NBCert # 57260

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/02/2025

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 in ²	[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 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 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV

Design Name: 2600L (Liquids)		NBCert #	57068
Manufacturer/Assembler		Designators	Expiration Date
Assembler		UV	04/02/2025

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 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 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 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

NBCert #

57237

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/02/2025

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

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/02/2025

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 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: 3800 NBCert # 57024

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 in ²	[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 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
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 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 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 in ²	[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 pilots NBCert # 57215

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/02/2025

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 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 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

AWC, Inc. (ITG)

Deer Park, TX 77536 United States

This Company Manufactures or Assembles:

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 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: 1890L, 1892L, 1895L, 1896L (Liquids) NBCert # 57192

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/09/2027

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 Name: 2600 & 2600S NBCert # 57057

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

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 in ²	[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 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 in ²	[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 Name: 2600 Series Restricted lift

NBCert #

57406

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/09/2027

Design Type

[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 in ²	[M] 2.257 in	0.203 in	15-3000 psi	Air	UV
4 in	6 in	4 in ²	[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 in ²	[T] 6.07 in	0.546 in	15-1000 psi	Air	UV
8 in	10 in	28.94 in ²	[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 in ²	[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 in ²	[Y] 13.5 in	1.215 in	15-750 psi	Air	UV
18 in	24 in	143.1 in ²	[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)

NBCert #

57260

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 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 in ²	[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 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 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV

Design Name: 2600L (Air & Steam) Series Restricted Lift NBCert # 57439

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/20/2027

Design Type

[Safety Relief Valve] 2600L (Air & Steam) Series Restricted Lift
 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 in ²	[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 in ²	[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: 2600L (Liquids) NBCert # 57068

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

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 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 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 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 in² [U] 6.333 in 2.47 in 15-300 psi Water UV, V

Design Name: 2600L (Liquids) Series Restricted lift NBCert # 57417

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	06/09/2027
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Design Type

[Safety Relief Valve] 2600L (Liquids) Series Restricted lift
 Capacity Tests: Sec. UV, V at Farris Engineering on January 23, 2017
 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: 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	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 in ²	[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 in ²	[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 in ²	[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: 2700, 2700S, 3700, 3700S NBCert # 57237

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

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 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: 3800

NBCert #

57024

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 in ²	[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 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: 3800FP NBCert # 57035

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	06/28/2024
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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 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 in ²	[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
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Assembler	UV	06/28/2024
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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 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: 4200 / 4400

NBCert # 57282

Manufacturer/Assembler	Designators	Expiration Date
Assembler	V	04/30/2025

Design Type

[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

Design Name: 6400/6600 (previously 2500 & 4600) NBCert # 57046

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	04/30/2025

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 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

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

Nameplate Abbreviation: BAPC

Beijing, 100176 People's Republic of China

This Company Manufactures or Assembles:

Design Name: HT Series	NBCert # 12407	
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	07/06/2024

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 in ²	[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 in ²	[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 in ²	[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/Assembler	Designators	Expiration Date
Manufacturer	UV	11/13/2026

Design Type

[Safety Relief Valve] HT Series (Liquid)
 Capacity Tests: Sec. UV at National Board Testing Lab on May 20, 2014
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.751 Unitless
 Media - Test: Water/Liquid; Certified: Liquid
 Set Pressure Definition: First Steady Stream
 Blowdown Characteristics: Fixed
 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
	2-3 NPS	0.134 in ²	[D] 0.4134 in	0.124 in	15-6000 psi	Water	UV
	2-3 NPS	0.239 in ²	[E] 0.5512 in	0.165 in	15-6000 psi	Water	UV
	2-3 NPS	0.352 in ²	[F] 0.6693 in	0.201 in	15-5000 psi	Water	UV
	2.5-3 NPS	0.589 in ²	[G] 0.8661 in	0.26 in	15-3705 psi	Water	UV
	3 NPS	0.887 in ²	[H] 1.063 in	0.319 in	15-2750 psi	Water	UV
	3-4 NPS	1.448 in ²	[J] 1.358 in	0.407 in	15-2700 psi	Water	UV
	4-6 NPS	2.097 in ²	[K] 1.634 in	0.49 in	15-2220 psi	Water	UV
	4-6 NPS	3.23 in ²	[L] 2.028 in	0.608 in	15-1500 psi	Water	UV
	6 NPS	4.097 in ²	[M] 2.284 in	0.685 in	15-1100 psi	Water	UV
	6 NPS	4.988 in ²	[N] 2.52 in	0.756 in	15-1000 psi	Water	UV
	6 NPS	7.22 in ²	[P] 3.032 in	0.909 in	15-1000 psi	Water	UV
	8 NPS	12.667 in ²	[Q] 4.016 in	1.206 in	15-600 psi	Water	UV
	8-10 NPS	18.118 in ²	[R] 4.803 in	1.441 in	15-600 psi	Water	UV

10 NPS	29.628 in ²	[T] 6.142 in	1.843 in	15-600 psi	Water	UV
14 NPS	43.943 in ²	[V] 7.48 in	2.244 in	15-500 psi	Water	UV
16 NPS	61.626 in ²	[W] 8.858 in	2.658 in	15-500 psi	Water	UV
18 NPS	82.291 in ²	[Y] 10.236 in	3.071 in	15-145 psi	Water	UV
18 NPS	95.448 in ²	[Z] 11.024 in	3.307 in	15-145 psi	Water	UV
20 NPS	109.563 in ²	[Z1] 11.811 in	3.543 in	15-145 psi	Water	UV
24 NPS	140.732 in ²	[AA] 13.386 in	4.016 in	15-145 psi	Water	UV
24 NPS	166.66 in ²	[BB] 14.567 in	4.37 in	15-145 psi	Water	UV

Design Name: HTBP-R (12" to 78" NPS) NBCert # 12531

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 in ²			0.5-1440 psi		UD
44 NPS		1045.61 in ²			0.5-1440 psi		UD
46 NPS		1157.81 in ²			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 in ²	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 in ²	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 Name: HTBP-R (2" to 10" NPS) NBCert # 12496

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UD Expiration Date 05/24/2027

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 mm ²			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 Name: HTGS NBCert # 12485

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV, V Expiration Date 08/01/2024

Design 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 in ²	[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 in ²	[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 in ²	[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
18 NPS	24 NPS	151.695 in ²	[AA] 13.898 in	3.474 in	145-500 psi	Steam	UV, V
20 NPS	24 NPS	187.066 in ²	[BB] 15.433 in	3.858 in	145-500 psi	Steam	UV, V

Design Name: HTXD Series NBCert # 12441

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/24/2027

Design Type

[Pilot Operated Pressure Relief Valve] HTXD Series
Capacity Tests: Sec. UV at National Board Testing Lab on June 30, 2015
Method of Establishing Relieving Capacity: Flow Capacity, K
Certified Value: 0.853 Unitless
Media - Test: Air/Gas; Certified: Air, Gas
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: 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 NPS	0.134 in ²	[D] 0.4134 in	0.165 in	30-6170 psi	Air	UV
1-1.5 NPS	2 NPS	0.239 in ²	[E] 0.5512 in	0.22 in	30-6170 psi	Air	UV
1-1.5 NPS	2 NPS	0.373 in ²	[F] 0.689 in	0.276 in	30-6170 psi	Air	UV
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.8858 in	0.355 in	30-6170 psi	Air	UV
1.5-2 NPS	3 NPS	0.954 in ²	[H] 1.1024 in	0.441 in	30-6170 psi	Air	UV
2-3 NPS	3, 4 NPS	1.578 in ²	[J] 1.4173 in	0.567 in	30-4620 psi	Air	UV
3 NPS	4 NPS	2.251 in ²	[K] 1.6929 in	0.677 in	30-3705 psi	Air	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 in ²	[BB] 14.567 in	5.827 in	30-765 psi	Air	UV

Design Name: HTXD Series (Liquid)		NBCert #	12430
Manufacturer/Assembler		Designators	Expiration 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
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 NPS	0.134 in ²	[D] 0.4134 in	0.165 in	30-6170 psi	Water	UV
1-1.5 NPS	2 NPS	0.239 in ²	[E] 0.5512 in	0.22 in	30-6170 psi	Water	UV
1-1.5 NPS	2 NPS	0.373 in ²	[F] 0.689 in	0.276 in	30-6170 psi	Water	UV
1.5-2 NPS	3 NPS	0.616 in ²	[G] 0.8858 in	0.355 in	30-6170 psi	Water	UV
1.5-2 NPS	3 NPS	0.954 in ²	[H] 1.102 in	0.441 in	30-6170 psi	Water	UV
2-3 NPS	3, 4 NPS	1.578 in ²	[J] 1.4173 in	0.567 in	30-4620 psi	Water	UV
3-3 NPS	4 NPS	2.251 in ²	[K] 1.693 in	0.677 in	30-3705 psi	Water	UV
3-4 NPS	4, 6 NPS	3.484 in ²	[L] 2.1063 in	0.843 in	30-3705 psi	Water	UV
4-4 NPS	6 NPS	4.383 in ²	[M] 2.3622 in	0.945 in	30-3705 psi	Water	UV
4-4 NPS	6 NPS	5.303 in ²	[N] 2.5984 in	1.04 in	30-3705 psi	Water	UV
4-4 NPS	6 NPS	7.791 in ²	[P] 3.1496 in	1.26 in	30-3705 psi	Water	UV
6-6 NPS	8 NPS	13.421 in ²	[Q] 4.1339 in	1.653 in	30-1480 psi	Water	UV
6-6 NPS	8 NPS	19.327 in ²	[R] 4.961 in	1.984 in	30-1020 psi	Water	UV
8-8 NPS	10 NPS	30.39 in ²	[T] 6.2205 in	2.488 in	30-985 psi	Water	UV
10-10 NPS	14 NPS	43.943 in ²	[V] 7.48 in	2.992 in	30-765 psi	Water	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: HTXO Series NBCert # 12452

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/24/2027

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: Beijing Aerospace Petrochemical Technology & Equipment Engineering Corporation Limited {BAP}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.5-1 NPS	0.122 in ²	0.394 in	0.118 in	15-6000 psi	Air	UV

Design Name: HTXO Series (Liquid) NBCert # 12418

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/13/2026

Design Type

[Safety Relief Valve] HTXO Series (Liquid)
 Capacity Tests: Sec. UV at National Board Testing Lab on May 20, 2014
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 3.300 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: Beijing Aerospace Petrochemical Technology & Equipment Engineering Corporation Limited {BAP}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.5-1.0 NPS	0.122 in ²	0.394 in	0.118 in	15-6000 psi	Water	UV

Bellofram Acquisition Company II (WHI)

Oklahoma City, OK 73149 United States

This Company Manufactures or Assembles:

Design Name: P2500 (Liquid) NBCert # 01977

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	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
 Certified Value: 0.591 Unitless
 Media - Test: Water/Liquid; Certified: Liquid
 Set Pressure Definition: First Steady Stream
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Nozzle/Full Lift
 Designed by: Bellofram Acquisition Company II {WHI}

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 in ²	[F] 0.672 in	0.168 in	15-1600 psi	Water	UV
1.25-2 NPS	2 NPS	0.576 in ²	[G] 0.857 in	0.214 in	75-1500 psi	Water	UV

Birmingham Controls, Inc. (LSL) Nameplate Abbreviation: BIRMINGHAM CONTROLS

Cerritos, CA 90703 United States

This Company Manufactures or Assembles:

Design Name: 1541, 1543, 1541-3, 1543-3 NBCert # 18032

Manufacturer/Assembler	Designators	Expiration Date
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 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 # 18122

Manufacturer/Assembler	Designators	Expiration Date
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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 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: 1900, 1900-30 1900-35 LA & DALA (Liquids) NBCert # 18784

Manufacturer/Assembler	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 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: 1900, 1900-30, 1900-35

NBCert #

18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/04/2028

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 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 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
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/Assembler	Designators	Expiration Date
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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 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: 1900D-2, 1900-30D-2 NBCert # 18144

Manufacturer/Assembler	Designators	Expiration 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: 1900-DM NBCert # 19066

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

Design Type

[Safety Relief Valve] 1900-DM
 Holder Designation:
 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 in ²	[U] 6.688 in	2.428 in	15-360 psi	Air	UV
8 NPS	10 NPS	35 in ²	[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: 1900-DM-D NBCert # 19088

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

Design Type

[Safety Relief Valve] 1900-DM-D
 Holder Designation:
 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
 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	0.067 in	15-10000 psi	Air	UV

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/04/2028

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	07/28/2028

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 in ²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V

Berstscheiben Schlesinger GmbH (BER)

Schalksmuhle, D-58579Germany

This Company Manufactures or Assembles:

Design Name: BK NBCert # 43029

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 12, 2017
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: 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
0.5 in		0.151 in ²			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 in ²			29-1015 psi		UD
8 in		28.569 in ²			14.5-870 psi		UD

Design Name: C NBCert # 43030

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

Design Type

[Rupture Disk Device] C
 Holder Designation: 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 in ²			4.35-580 psi		UD
200 DN		35.181 in ²			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 in ²			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)

Nameplate Abbreviation: BROADY

East Yorkshire, HU3 2DU United Kingdom

This Company Manufactures or Assembles:

Design Name: 3500 (Liquid)

NBCert # 93013

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 February 11, 2011
 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}

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] 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

Design Name: 3600 NBCert # 93024

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/16/2025

Design Type

[Safety Relief Valve] 3600
 Capacity Tests: Sec. UV at National Board Testing Lab on March 1, 2010
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.970 SCFM/PSIA; (alternate medium): 5.540 PPH/PSIA
 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: Broady Flow Control Limited {BVL}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	84.9 mm ²	10.4 mm	2.5 mm	15-2900 psi	Steam	UV
0.5-1 NPS	1 NPS	84.9 mm ²	10.4 mm	2.5 mm	15-3625 psi	Air	UV

Design Name: 3600 (Liquid) NBCert # 93035

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	03/14/2025

Design Type

[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
 Designed by: Broady Flow Control Limited {BVL}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	1 NPS	70.9 mm ²	9.5 mm	2.4 mm	1-250 psi	Water	UV

Design Name: 4000 (API Nozzle -Modulating & Snap Acting Pilot, Liquid) NBCert # 93079

Manufacturer/Assembler	Designators	Expiration Date
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 mm ²	[D] 10 mm	10 mm	29-6400 psi	Water	UV

25-40 DN	50 DN	135.85 mm ²	[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 mm ²	[G] 21.25 mm	15 mm	29-6170 psi	Water	UV
40-50 DN	80 DN	551.55 mm ²	[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 mm ²	[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 mm ²	[M] 56.7 mm	37 mm	29-3705 psi	Water	UV
100 DN	150 DN	3058.15 mm ²	[N] 62.4 mm	37 mm	29-3705 psi	Water	UV
100 DN	150 DN	4417.86 mm ²	[P] 75 mm	37 mm	29-3705 psi	Water	UV
150 DN	200 DN	7791.28 mm ²	[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 mm ²	[T] 152.8 mm	71 mm	29-985 psi	Water	UV

Design Name: 4000 (Full Bore, Modulating & Snap Acting Pilot, Air/gas) NBCert # 93046

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer	UV	05/23/2028
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Design Type

[Pilot Operated Pressure Relief Valve] 4000 (Full Bore, Modulating & Snap Acting Pilot, Air/gas)
Capacity Tests: Sec. UV at National Board Testing Lab on April 15, 2015
Method of Establishing Relieving Capacity: Flow Capacity, K
Certified Value: 0.729 Unitless
Media - Test: Air/Gas; Certified: Air, Gas
Set Pressure Definition: Initial Audible Discharge
Blowdown Characteristics: Adjustable and Fixed for Mod. Pilot
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 DN	50 DN	508.7 mm ²	[G1] 25.45 mm	10 mm	29-6400 psi	Air	UV
40 DN	80 DN	1256.6 mm ²	[J1] 40 mm	15 mm	29-6170 psi	Air	UV
50 DN	80 DN	2030.8 mm ²	[L1] 50.85 mm	19 mm	29-6170 psi	Air	UV
80 DN	100 DN	5032.8 mm ²	[P1] 80.05 mm	29 mm	29-3705 psi	Air	UV
100 DN	150 DN	8123.3 mm ²	[Q1] 101.7 mm	37 mm	29-3705 psi	Air	UV
150 DN	200 DN	17695 mm ²	[R1] 150.1 mm	53 mm	29-1480 psi	Air	UV
200 DN	250 DN	32445.2 mm ²	[T1] 203.25 mm	71 mm	29-985 psi	Air	UV

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

Guadalupe, Nuevo Leon, 67180Mexico

This Company Manufactures or Assembles:

Design Name: MBV, AMBV w. Dial Vac. Support NBCert # 13060

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	12/15/2027

Design Type

[Rupture Disk Device] MBV, AMBV w. Dial Vac. Support
 Holder Designation: 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 in ²			0.25-50 psi		UD
24 NPS		226.1 in ²			0.25-50 psi		UD
3 NPS		4.2 in ²			1-150 psi		UD
4 NPS		7.61 in ²			1-150 psi		UD
5 NPS		11.61 in ²			1-150 psi		UD
6 NPS		15.82 in ²			1-150 psi		UD
8 NPS		25.87 in ²			0.5-150 psi		UD

Caliber Valve and Controls LLC (CLV)

Nameplate Abbreviation: Caliber Valve & Controls

Lake Charles, LA 70615 United States

This Company Manufactures or Assembles:

Design Name: 78 (Pilot Operated) NBCert # 44053		
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/08/2027

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 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 in ²	[T] 6 in	2.99 in	29-740 psi	Steam	UV

Design Name: 9 Series	NBCert # 44019	
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/18/2027

Design Type

[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

Design Name: P3, P4 (liquids) NBCert # 92012

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 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 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 NBCert # 92001

Manufacturer/Assembler	Designators	Expiration 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 in ²	[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 in ²	[T] 6.063 in	1.88 in	15-600 psi	Air	UV
8 NPS	28.871 in ²	[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 # 44110

Manufacturer/Assembler	Designators	Expiration Date
Assembler	V	01/08/2027

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 in ²	[W] 8.402 in	2.1 in	30-740 psi	Steam	UV, V

Design Name: STARFLOW-V (Restricted Lift) NBCert # 44121

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

Design Type

[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 in ²	[W] 8.402 in	1.155 in	30-740 psi	Steam	UV, V

Design Name: Starsteam V Series (Res. Lift) NBCert # 92045

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

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 in ²	[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 94510 United States

This Company Manufactures or Assembles:

Design Name: 243/249/443/449/546/843/849/943/5046/5049/8043/8049 NBCert # 01292

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

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: 253/259/453/459/853/859/953/959/5059/8053/8059 NBCert # 01304

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

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 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: 453/459/853/859/953/959/5059 (Liquids) NBCert # 01326

Manufacturer/Assembler	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 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 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: 81, 81P, 83, 86 NBCert # 01089

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/26/2028

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) NBCert # 01102

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV 01/26/2028

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 Name: 900 Series (Liquid), 7700, SNC NBCert # 15499

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

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 in ²	[#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	Designators	Expiration 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 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#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: H Series (HCI, HSJ, HCA, HA, HB, HC, HCB, HCP, HJO, HN, HNA, HNB, HNP, HS, NBCert # 15006 HSA, HSB, HSC, HSP)

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

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 LP {AGC}

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 in ²	[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 in ²	[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 in ²	[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 in ²	10.5 in	2.625 in	15-500 psi	Steam	UV, V
16 NPS	18, 20 NPS	95.21 in ²	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 in ²	15 in	3.75 in	15-500 psi	Steam	UV, V

Design Name: JLT/JLT-JDS (Liquids) NBCert # 15095

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	10/13/2027
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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 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-JOS-RL/JLT-JBS-RL/JLT-JDS-RL
 (Liquids) (Restricted lift version of Certification 15095) NBCert # 01393

Manufacturer/Assembler	Designators	Expiration Date
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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}

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	Water	NV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.08 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.082 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.082 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.103 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.103 in	15-6170 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.131 in	15-6170 psi	Water	NV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.131 in	15-6170 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.137 in	15-2500 psi	Water	NV
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.137 in	15-2500 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.164 in	15-3705 psi	Water	NV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.164 in	15-3705 psi	Water	UV, V
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 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-RL/JLT-JBS-RL/JLT-JDS-RL (Restricted Lift version of Certification 15512) NBCert # 01382

Manufacturer/Assembler	Designators	Expiration Date
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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 in ²	[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-E, 8400, AC/AB NBCert # 15208

Manufacturer/Assembler	Designators	Expiration Date
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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

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

Design Name: JOS-E-RL/JBS-E-RL/JDS-E-RL (Restricted Lift version of cert 15208) NBCert # 01045

Manufacturer/Assembler	Designators	Expiration Date
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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}

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 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 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 90670 United States

This Company Manufactures or Assembles:

Design Name: 443/449/546/843/849/943/949/5046/5049 (Liquids) NBCert # 01337

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/25/2024

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

This Company Manufactures or Assembles:

Design Name: 1064 NBCert # 69252

Manufacturer/Assembler	Designators	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 in ²	0.685 in	0.197 in	250-250 psi	Air	UV

Design Name: 1128

NBCert #

69128

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	03/01/2028

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 mm ²	0.787 in	10 mm	250-0 psi	Air	UV

Design Name: 1130

NBCert #

69140

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	02/24/2026

Design Type

[Safety Relief Valve] 1130
 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:3934.0 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
1.25 NPS	Top mm	716.3 mm ²	1.224 in	10 mm	250-0 psi	Air	UV

Design Name: 1135

NBCert #

69151

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	12/05/2024

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 mm ²	14.7 mm	10 mm	250-0 psi	Air	UV

Design Name: 1162A NBCert # 69218

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 03/01/2028

Design Type

[Safety Relief Valve] 1162A
Capacity Tests: Sec. UV at National Board Testing Lab on June 13, 2007
Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
Certified Value:657.00 SCFM
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					312-312 psi	Air	UV

Design Name: 700073 NBCert # 69083

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 06/26/2024

Design Type

[Safety Relief Valve] 700073
Capacity Tests: Sec. UV at National Board Testing Lab on July 12, 2001
Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
Certified Value:1808.0 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		283.4 mm ²	19 mm	9 mm	250-0 psi	Air	UV

Design Name: PV19 (700214) NBCert # 69230

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 07/02/2024

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 mm ²	0.748 in	10 mm	250 psi	Air	UV

Design Name: PV24 (700216) NBCert # 69241

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 07/03/2024

Design Type

[Safety Relief Valve] PV24 (700216)
 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:3158.0 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	Top NPS	471.2 mm ²	0.965 in	10 mm	250 psi	Air	UV

Design Name: PV29 (700217) NBCert # 69229

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 07/16/2024

Design Type

[Safety Relief Valve] PV29 (700217)
 Capacity Tests: Sec. UV at National Board Testing Lab on June 1, 2012
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value:4656.0 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
1.25 NPS	Top NPS	683.5 mm ²	1.16 in	12 mm	250 psi	Air	UV

Chalmers & Kubeck - NC (CHK) Nameplate Abbreviation: CKNC

Gastonia, NC 28054 United States

This Company Manufactures or Assembles:

Design Name: 1541, 1543, 1541-3, 1543-3 NBCert # 18032

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV, V 06/12/2024

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
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: 19110M & 19110H (Liquids) NBCert # 19077

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/12/2024

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

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

Tianjin, 301700 People's Republic of China

This Company Manufactures or Assembles:

Design Name: 2600 & 2600S

NBCert # 57057

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	06/21/2024

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 in ²	[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 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 in ²	[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 Name: 2600L (Air & Steam) NBCert # 57260

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer	UV	09/21/2027
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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 in ²	[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 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 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV

Design Name: 2600L (Liquids) NBCert # 57068

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 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 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

NBCert # 57237

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/22/2027

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 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

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/23/2027

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

Design Name: 3800 NBCert # 57024

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/22/2027

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 in ²	[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 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 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 in ²	[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
Manufacturer	UV	09/22/2027

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 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

CV Techserv, Inc. (CVT)

Nameplate Abbreviation: CV Techserv

Hastings, MN 55033 United States

This Company Manufactures or Assembles:

Design Name:	Kunkle 264, 265, 266 & 267	NBCert #	36267
Manufacturer/Assembler	Designators	Expiration Date	
Assembler	UV	06/26/2025	
Design Type			
[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 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: Kunkle 300,600

NBCert #

36076

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 in² [Q] 3.75 in 0.938 in 15-600 psi Steam UV

Design Name: Kunkle 337 NBCert # 36278

Manufacturer/Assembler	Designators	Expiration 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
 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
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: Kunkle 6000, 6252 Series NBCert # 36324

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	11/19/2024

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 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 910 to 919 NBCert # 36100

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/01/2025

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

Design Name: Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid) NBCert # 36111

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/28/2025

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}

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

Design Name: Kunkle 920, 921, 927, Agco A (High Temp. water) NBCert # 36098

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

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
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	V

Dante Valve Company (DAN)

Nameplate Abbreviation: DVC

Bellflower, CA 90706 United States

This Company Manufactures or Assembles:

Design Name:	Kunkle 6000, 6252 Series	NBCert #	36324
Manufacturer/Assembler		Designators	Expiration Date
Assembler		UV, V	05/17/2024

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 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

Dowco Valve Company, Inc. (DIA)

Nameplate Abbreviation: Dowco

DeWitt, IA 52742 United States

This Company Manufactures or Assembles:

Design Name: 2600 & 2600S NBCert # 57057

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

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 in ²	[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 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 in ²	[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 Name: 2600L (Liquids) NBCert # 57068

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

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 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 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 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 NBCert # 57237

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

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 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

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

Dubai, 61302 United Arab Emirates

This Company Manufactures or Assembles:

Design Name:	1900, 1900-30 1900-35 LA & DALA (Liquids)	NBCert #	18784
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Manufacturer/Assembler	Designators	Expiration 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 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:	1900, 1900-30, 1900-35	NBCert #	18201
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/02/2025

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
 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 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

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/Assembler	Designators	Expiration Date
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Manufacturer UV Expiration Date 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

Design Name: 19000 Series, Liquid NBCert # 18717

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/02/2025

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 # 18144

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/03/2025

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
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/Assembler	Designators	Expiration Date
Manufacturer	UV	10/01/2025

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/02/2025

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
Manufacturer	UV	10/02/2025

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: 19110M & 19110H (Liquids) NBCert # 19077

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	12/16/2027

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: 2900 (39PV & 39MV pilots - Liquid) NBCert # 18874

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	12/16/2027

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 Name: 2900 (39PV & 39MV pilots) NBCert # 18863

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	12/16/2027

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
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 in ²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV
8 NPS	10 NPS	35 in ²	[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/Assembler	Designators	Expiration Date
Manufacturer	UV	12/16/2027

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 in ²	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: 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 [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

Dresser, LLC (DRJ)

Jacksonville, FL 32221 United States

This Company Manufactures or Assembles:

Design Name:	13900 TRH	NBCert #	18469
Manufacturer/Assembler	Designators	Expiration Date	
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 in ²	12.05 in	3.81 in	50-300 psi	Steam	UV
18 NPS	22 NPS	143.1 in ²	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:	13900 TRH 20"	NBCert #	18470
Manufacturer/Assembler	Designators	Expiration Date	
Manufacturer	UV	10/18/2024	

Design Type

[Pilot Operated Pressure Relief Valve] 13900 TRH 20"
 Capacity Tests: Sec. UV at Dresser, Inc. on December 16, 2008
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.784 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
20 NPS	24 NPS	201 in ²	[13906] 16 in	4.77 in	50-300 psi	Steam	UV

Design Name: 1541, 1543, 1541-3, 1543-3 NBCert # 18032

Manufacturer/Assembler	Designators	Expiration 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 Name: 1700 & 2700

NBCert # 18100

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV, V	11/02/2024

Design Type

[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 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. # 18100) NBCert # 18111

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 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 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 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: 1900, 1900-30 1900-35 LA & DALA (Liquids) NBCert # 18784

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV, UV, V	11/04/2027

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 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: 1900, 1900-30, 1900-35 NBCert # 18201

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

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

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 Name: 19000 Series, Liquid NBCert # 18717

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer NV, UV 11/02/2024

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 Name: 1900D-2, 1900-30D-2 NBCert # 18144

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

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: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	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	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	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900-DM NBCert # 19066

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/27/2026

Design Type

[Safety Relief Valve] 1900-DM
 Holder Designation:
 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 in ²	[U] 6.688 in	2.428 in	15-360 psi	Air	UV
8 NPS	10 NPS	35 in ²	[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: 1900-DM-D NBCert # 19088

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/27/2026

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
 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	0.067 in	15-10000 psi	Air	UV

Design Name: 1900-DM-E NBCert # 19099

Manufacturer/Assembler	Designators	Expiration 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: 1900E-2, 1900-30E-2 NBCert # 18166

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

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
Manufacturer	NV, UV, V	11/04/2027

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: 19110M & 19110H (Liquids) NBCert # 19077

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

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: 1970 NBCert # 18559

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV, -Class 2, -Class 3	05/27/2027

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, LLC {DRJ}

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: 1975-4 LS & DL, Liquids NBCert # 18638

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV, -Class 2, -Class 3	05/27/2027

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 in ²	0.375 in	0.2 in	15-2000 psi	Water	NV

Design Name: 1982

NBCert #

18379

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	03/23/2028

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, 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: 1982 LS, 820000LS

NBCert #

18380

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/25/2028

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, 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: 1990 - 3999 NBCert # 18391

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV, -Class 2, -Class 3	07/30/2026

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, LLC {DRJ}

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) NBCert # 18403

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

Design Type

[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 - Liquid) NBCert # 18874

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/25/2028

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 Name: 2900 (39PV & 39MV pilots) NBCert # 18863

Manufacturer/Assembler	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
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 in ²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV
8 NPS	10 NPS	35 in ²	[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: 2900-TM (39PV & 39MV pilots)		NBCert #	01427
Manufacturer/Assembler		Designators	Expiration Date
Manufacturer		UV	05/03/2027

Design Type

[Pilot Operated Pressure Relief Valve] 2900-TM (39PV & 39MV pilots)
 Holder Designation:
 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 in ²	[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 in ²	[U] 6.688 in	1.841 in	15-905 psi	Steam	UV
8 NPS	10 NPS	35 in ²	[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 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 in ²	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: 3900 (39PV, 39MV pilots, liquid)

NBCert #

18458

Manufacturer/Assembler	Designators	Expiration 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 {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 in ²	9.437 in	3 in	15-1500 psi	Water	UV

Design Name: 3900-TM (39PV, 39MV pilots)

NBCert #

01438

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	12/01/2027

Design Type

[Pilot Operated Pressure Relief Valve] 3900-TM (39PV, 39MV pilots)

Holder Designation:

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] 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	15-6250 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: 4900 (49PV & 49MV pilots) NBCert # 18885

Manufacturer/Assembler	Designators	Expiration 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 {DRJ}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 NPS	2 NPS	0.1314 in ²	[D] 0.409 in	0.25 in	15-6250 psi	Air	UV
1-1.5 NPS	2 NPS	0.1314 in ²	[D] 0.409 in	0.25 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	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 in ²	[R] 4.89 in	1.31 in	15-150 psi	Steam	UV
6 NPS	8 - 10 NPS	18.783 in ²	[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)

Nameplate Abbreviation: East Coast Valve Services

Groton, CT 06340 United States

This Company Manufactures or Assembles:

Design Name:	9 Series	NBCert #	44019
Manufacturer/Assembler		Designators	Expiration Date
Assembler		UV	10/23/2026
Design Type			
[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

Design Name: 9 Series (Liquids) NBCert # 44020

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV 10/23/2026

Design Type

[Safety Relief Valve] 9 Series (Liquids)
 Capacity Tests: Sec. UV, V at National Board Testing Lab on July 24, 1997
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.632 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
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: P3, P4 (liquids) NBCert # 92012

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV 10/23/2026

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 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 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 NBCert # 92001

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/07/2027

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 in ²	[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 in ²	[T] 6.063 in	1.88 in	15-600 psi	Air	UV
8 NPS	28.871 in ²	[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 # 44110

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 in ²	[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

Design Type

[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)

Nameplate Abbreviation: ELFAB

North Shields, Tyne & Wear, NE29 8SD United Kingdom

This Company Manufactures or Assembles:

Design Name: Double DSC-OPR	NBCert # 88028	
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	05/18/2027

Design Type

[Rupture Disk Device] Double DSC-OPR
 Holder Designation: Double HLD-REV
 Capacity Tests: Sec. UD at Elfab Limited on March 17, 2021
 Certified Value: 2.380 Unitless; (alternate medium): 0.000
 Media - Test: Air/Gas, Water/Liquid (Kr test on Air/Gas); Certified: Compressible and Incompressible (Krgl)
 Set Pressure Definition: Burst Pressure
 Flow Area Configuration:
 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		1.63 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

16 NPS	171.545 in ²	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 in ²	4-426 psi	UD
24 NPS	372.075 in ²	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 in ²	4-173 psi	UD
32 NPS	643.3 in ²	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 in ²	4-136 psi	UD
6 NPS	23.322 in ²	5-1217 psi	UD
8 NPS	44.37 in ²	5-1104 psi	UD

Design Name: DSC-AGS NBCert # 88129

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 in ²	10 in		1-70 psi		UD
12 NPS		113.1 in ²	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 in ²	20 in	1-30 psi	UD

Design Name: DSC-FCD/DCD NBCert # 88208

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	10/08/2026

Design Type

[Rupture Disk Device] DSC-FCD/DCD
 Holder Designation: 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 [designator] 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 in ²			5-248 psi	Air	UD
14 NPS		100.84 in ²			5-235 psi	Air	UD
16 NPS		132.21 in ²			5-222 psi	Air	UD
18 NPS		167.1 in ²			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 in ²			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 in ²			10-494 psi	Air	UD

8 NPS 26.63 in² 5-378 psi Air UD

Design Name: DSC-OFS NBCert # 88163

Manufacturer/Assembler Designators Expiration Date

Manufacturer UD 01/22/2026

Design Type

[Rupture Disk Device] DSC-OFS
HolderDesignation: HLD-REV, HLD-SAN, HLD-SAN(W)
Capacity Tests: Sec. UD at Elfab Limited on January 17, 2020
Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl
Certified Value: 0.850 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}

Table with 8 columns: Inlet Size, Outlet Size, Flow Area, Orifice [designator] dia., Lift, Set Pressure Range, Media, Designator. Lists various inlet/outlet sizes and their corresponding flow areas and pressure ranges.

Design Name: DSC-OPR NBCert # 88185

Manufacturer/Assembler Designators Expiration Date

Manufacturer UD 01/28/2026

Design Type

[Rupture Disk Device] DSC-OPR
HolderDesignation: HLD-REV, HLD-SAN, HLD-SAN(W)
Capacity Tests: Sec. UD at National Board Testing Lab on April 30, 2013
Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krgl
Certified Value: 1.740 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}

Table with 8 columns: Inlet Size, Outlet Size, Flow Area, Orifice [designator] dia., Lift, Set Pressure Range, Media, Designator. Lists inlet/outlet sizes and flow area.

1 NPS	1 NPS	0.766 in ²	1.12 in	50-1523 psi	Air	UD
1.5 in	1.5 in	1.146 in ²	1.37 in	50-1500 psi		UD
1.5 NPS	1.5 NPS	1.651 in ²	1.63 in	27-1523 psi	Air	UD
2 in	2 in	2.132 in ²	1.87 in	13-1000 psi		UD
2 NPS	2 NPS	2.789 in ²	2.13 in	14-1523 psi	Air	UD
2.5 in	2.5 in	3.484 in ²	2.37 in	13-1000 psi		UD
2.5 NPS	2.5 NPS	4.119 in ²	2.61 in	10-1305 psi	Air	UD
3 in	3 in	5.041 in ²	2.87 in	13-1000 psi		UD
3 NPS	3 NPS	6.722 in ²	3.35 in	7-1088 psi	Air	UD
4 in	4 in	8.923 in ²	3.83 in	13-1000 psi		UD
4 NPS	4 NPS	10.923 in ²	4.11 in	5-1440 psi	Air	UD
6 in	6 in	21.03 in ²	5.78 in	5-650 psi		UD
6 NPS	6 NPS	23.309 in ²	6.14 in	5-1217 psi	Air	UD
8 NPS	8 NPS	44.37 in ²	8.18 in	5-1104 psi	Air	UD
10 NPS	10 NPS	65.248 in ²	10.2 in	5-991 psi	Air	UD
12 NPS	12 NPS	95.006 in ²	12.2 in	5-878 psi	Air	UD
14 NPS	14 NPS	125.982 in ²	14.1 in	5-765 psi	Air	UD
16 NPS	16 NPS	171.545 in ²	16.5 in	4-652 psi	Air	UD
18 NPS	18 NPS	213.795 in ²	18 in	4-539 psi	Air	UD
20 NPS	20 NPS	259.735 in ²	20 in	4-426 psi	Air	UD
24 NPS	24 NPS	372.075 in ²	23.9 in	4-200 psi	Air	UD
26 NPS	26 NPS	424.74 in ²	26 in	4-191 psi	Air	UD
28 NPS	28 NPS	492.6 in ²	28 in	4-182 psi	Air	UD
30 NPS	30 NPS	565.49 in ²	30 in	4-173 psi	Air	UD
32 NPS	32 NPS	643.3 in ²	32 in	4-163 psi	Air	UD
34 NPS	34 NPS	726.34 in ²	34 in	4-154 psi	Air	UD
36 NPS	36 NPS	814.3 in ²	36 in	4-145 psi	Air	UD
40 NPS	40 NPS	1005.31 in ²	40 in	4-136 psi	Air	UD

Design Name: DSC-OPS NBCert # 88141

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	03/29/2025

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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.923 in ²			14-70 psi		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 in ²	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

Design Name: OPR NBCert # 88118

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

Design Type

[Rupture Disk Device] OPR
 Holder Designation: 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 in ²			27-1523 psi		UD
10 NPS		65.248 in ²			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 in ²			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)

Nameplate Abbreviation: EPM TOL

Toluca Edo, 50223Mexico

This Company Manufactures or Assembles:

Design Name: 243/249/443/449/546/843/849/943/5046/5049/8043/8049 NBCert # 01292

Manufacturer/Assembler	Designators	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: 253/259/453/459/853/859/953/959/5059/8053/8059 NBCert # 01304

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

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 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: 443/449/546/843/849/943/949/5046/5049 (Liquids) NBCert # 01337

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}

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: 453/459/853/859/953/959/5059 (Liquids) NBCert # 01326

Manufacturer/Assembler	Designators	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 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: 81, 81P, 83, 86 NBCert # 01089

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

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: 900 Series (Liquid), 7700, SNC NBCert # 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 [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 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	Designators	Expiration Date
Assembler	UV	09/28/2027

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 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#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 # 15095

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

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 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: JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-E, 8400, AC/AB NBCert # 15208

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/28/2027

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
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

Emerson Saudi Arabia LLC (EMR)

Jubail Industrial City, 31961 Saudi Arabia

This Company Manufactures or Assembles:

Design Name: 243/249/443/449/546/843/849/943/5046/5049/8043/8049 NBCert # 01292

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/06/2027

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: 253/259/453/459/853/859/953/959/5059/8053/8059 NBCert # 01304

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/06/2027

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 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: 263/269/463/469/566/863/869/963/969/5066/5069 NBCert # 01315

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/06/2027

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: 443/449/546/843/849/943/949/5046/5049 (Liquids) NBCert # 01337

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/07/2027

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}

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: 453/459/853/859/953/959/5059 (Liquids) NBCert # 01326

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/07/2027

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 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: 463/469/566/863/869/963/969/5066/5069 (Liquids) NBCert # 01348

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/07/2027

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: 900 Series (Liquid), 7700, SNC NBCert # 15499

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/07/2027

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 in ²	[#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	Designators	Expiration Date
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Assembler UV 09/29/2027

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 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#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 # 15095

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV 04/07/2027

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 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-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABLNBCert # 15512

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/06/2027

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 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 in ²	[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-E, 8400, AC/AB NBCert # 15208

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/06/2027

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
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)

Nameplate Abbreviation: FAINGER
LESER

Maharashtra, 431 148India

This Company Manufactures or Assembles:

Design Name:	237, 237IC, 237CC	NBCert #	37325
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	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

Design Name:	237, 237IC, 237CC (Liquid)	NBCert #	37336
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/21/2024

Design Type

[Relief Valve] 237, 237IC, 237CC (Liquid)
 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on August 14, 2017
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 1.591 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	0.058 in ²	0.394 in	0.039 in	15-2610 psi	Water	UV

Design Name:	459/462	NBCert #	37112
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	06/15/2027

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 # 37101

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

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
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
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: 526 (Liquids)	NBCert # 37235	
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	06/15/2027

Design Type

[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	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: 526D

NBCert # 37246

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

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: 526D Liquids

NBCert # 37257

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

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

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, 1855, 1856M, 2850, 2852, 2856, 2850H NBCert # 57002

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/18/2024

Design Type

[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 in ²	1.5 in	0.204 in	15-300 psi	Air	UV
1.5-1.5 NPS	2, 2.5 NPS	0.961 in ²	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, 1896 NBCert # 57013

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: 1890L, 1892L, 1895L, 1896L (Liquids) NBCert # 57192

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV, UV	12/17/2025

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 Name: 2600 & 2600S NBCert # 57057

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}

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 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 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 in ²	[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 Name: 2600L (Air & Steam)

NBCert # 57260

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/10/2026

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 {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 in ²	[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 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 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV

Design Name: 2600L (Liquids)		NBCert #	57068
Manufacturer/Assembler		Designators	Expiration Date
Manufacturer		NV, UV	10/15/2027

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 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 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

NBCert #

57237

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV, -Class 1, -Class 2, -Class 3, UV	11/19/2024

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

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV, -Class 1, -Class 2, -Class 3, UV	10/18/2024

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 {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

Design Name: 2850R06-M20/S4/SP NBCert # 57103

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	09/23/2026

Design Type

[Relief Valve] 2850R06-M20/S4/SP
 Holder Designation:
 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 {FIC}

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 Name: 4200 / 4400 NBCert # 57282

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV, V	10/15/2027

Design Type

[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

Design Name: 4700L (liquids) NBCert # 57259

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV, UV	09/10/2026

Design Type

[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: Farris Engineering, Division of Curtiss-Wright Flow Control 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
0.5-1 NPS	.75, 1, 1.5 NPS	0.225 in ²	[E] 0.66 in	0.134 in	15-6000 psi	Water	UV

Design Name: 6400/6600 (previously 2500 & 4600) NBCert # 57046

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	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 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

Design Name: 954C55

NBCert # 57440

Manufacturer/Assembler

Designators

Expiration Date

Manufacturer

NV

12/11/2025

Design Type

[Vacuum Relief Valve] 954C55
 Capacity Tests: Sec. NV, -Class 2, -Class 3 at National Board Testing Lab {unknown test date}
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 23.300 SCFM/F(P*(P-Po)^{0.5}
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Start-to-Leak
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Curtain Area
 Designed by: Farris Engineering, Division of Curtiss-Wright Flow Control Corporation {FIC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
2 NPS	2 NPS	2.776 in ²	1.88 in		-0.5--2.5 psi	Air	NV

Flow Safe Inc. (FSS)

Houston, TX 77070 United States

This Company Manufactures or Assembles:

Design Name: F7100, F7300, F7400, F7500 (Liquids) NBCert # 28011

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/25/2026

Design Type

[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 in ²	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 in ²	3.624 in	1.53 in	1481-3705 psi	Water	UV
4 NPS	6 NPS	11.437 in ²	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 in ²	11.935 in	4.17 in	15-285 psi	Water	UV

Design Name: F8100, F8200, F8300, F8400, F8500 NBCert # 28022

Manufacturer/Assembler	Designators	Expiration Date
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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}

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	Air	UV
1 NPS	2 NPS	0.235 in ²	[E] 0.815 in	0.43 in	2221-6000 psi	Air	UV
1 NPS	2 NPS	0.358 in ²	[F] 0.815 in	0.43 in	2221-3705 psi	Air	UV
1 NPS	2 NPS	0.134 in ²	[D] 0.957 in	0.43 in	15-2220 psi	Air	UV
1 NPS	2 NPS	0.235 in ²	[E] 0.957 in	0.43 in	15-2220 psi	Air	UV
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 in ²	[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 Name: F8100, F8300, F8500 (High Beta Ratio Sizes) (Liquid) NBCert # 28156

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	07/21/2027

Design Type

[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
10 NPS	12 NPS	51 in ²	[V] 9.565 in	3.64 in	15-750 psi	Water	UV
12 NPS	16 NPS	78.81 in ²	[W] 10.017 in	4.17 in	15-285 psi	Water	UV

Design Name: F8100, F8300, F8500 (liquid) NBCert # 28099

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/25/2026

Design Type

[Pilot Operated Pressure Relief Valve] F8100, F8300, F8500 (liquid)
 Capacity Tests: Sec. UV at National Board Testing Lab on February 12, 2008
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.830 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	0.134 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

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/25/2026

Design Type

[Safety Relief Valve] F84L, F88 (liquids)
 Capacity Tests: Sec. UV at National Board Testing Lab on August 26, 1996
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.798 Unitless
 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
0.75-1 NPS	1 NPS	0.261 in ²	[#8] 0.577 in	0.27 in	30-4292 psi	Water	UV
1.5 NPS	2 NPS	0.663 in ²	[G] 0.919 in	0.34 in	30-3705 psi	Water	UV
2 NPS	3 NPS	1.69 in ²	[J] 1.467 in	0.6 in	30-2700 psi	Water	UV

Design Name: F84L-2 NBCert # 28123

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/25/2026

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: F84L-3, F88-3 (Liquid) NBCert # 28145

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/10/2027

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: F84L-4, F88-4 (Liquids) NBCert # 28044

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/25/2026

Design Type

[Relief Valve] F84L-4, F88-4 (Liquids)
 Capacity Tests: Sec. UV at National Board Testing Lab on December 18, 1996
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 3.790 GPM/SQ.RT. PSID
 Media - Test: Water/Liquid; Certified: Liquid
 Set Pressure Definition: 93% of pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Annular
 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 in ²	[4] 0.577 in	0.27 in	30-8382 psi	Water	UV

Design Name: F88-3 NBCert # 28134

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/10/2027

Design Type

[Safety Valve] F88-3
 Capacity Tests: Sec. UV at National Board Testing Lab on September 4, 2014
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.060 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 in	1 in	0.065 in ²	[-3] 0.546 in	0.27 in	50-4292 psi	Air	UV

Design Name: F88-4 NBCert # 28088

Manufacturer/Assembler	Designators	Expiration Date
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 in ²	0.577 in	0.27 in	50-4292 psi	Air	UV

Design Name: F88-8 NBCert # 28077

Manufacturer/Assembler	Designators	Expiration Date
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 Safe Inc. {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: F88-G NBCert # 28112

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/25/2026

Design Type

[Safety Valve] F88-G
 Capacity Tests: Sec. UV at National Board Testing Lab on November 15, 2010
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value:10.300 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 Safe Inc. {FLW}

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/Assembler	Designators	Expiration Date
Manufacturer	UV	04/25/2026

Design Type

[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
 Designed by: Flow Safe Inc. {FLW}

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 #	27188
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 September 27, 2012 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 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 in ²	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 in ²	5.906 in	3.149 in	150-800 psi	Steam	V

Design Name:	PSH 2-1/2 K 4	NBCert #	27098
Manufacturer/Assembler	Designators	Expiration Date	
Manufacturer	V	10/09/2027	
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 Seisakusho Company, Limited {FKI}			

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
2.5 NPS	4 NPS	2.006 in ²	[K] 1.598 in	0.511 in	500-5000 psi	Steam	V

Design Name: PSH 2-1/2 L 4 NBCert # 27100

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	V	10/09/2027

Design Type

[Power Actuated Relief Valve] PSH 2-1/2 L 4
 Capacity Tests: Sec. V at National Board Testing Lab on October 26, 1999
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 121.90 PPH/PSIA
 Media - Test: Steam; Certified: Steam
 Set Pressure Definition: Power Actuated
 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
2.5 NPS	4 NPS	2.922 in ²	[L] 1.928 in	0.59 in	500-5000 psi	Steam	V

Design Name: PSL Series NBCert # 27021

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	01/22/2025

Design Type

[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 in ²	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 in ²	7.087 in	2.126 in	15-740 psi	Air	UV
10 NPS	12 NPS	56.8 in ²	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 in ²	12.126 in	3.759 in	15-740 psi	Air	UV
16 NPS	18 NPS	161.3 in ²	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 Series

NBCert # 27032

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 in ²	[RS] 4.421 in	1.106 in	15-800 psi	Air	UV
6 NPS	8, 10 NPS	15.353 in ²	[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 in ²	[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 in ²	[A] 14.055 in	3.516 in	15-500 psi	Air	UV
18 NPS	24 NPS	155.15 in ²	[A] 14.055 in	3.516 in	15-500 psi	Steam	UV
20 NPS	24 NPS	191.87 in ²	[B] 15.63 in	3.91 in	15-500 psi	Air	UV
20 NPS	24 NPS	191.87 in ²	[B] 15.63 in	3.91 in	15-500 psi	Steam	UV

Design Name: RECL & REBL (Liquids)

NBCert # 27043

Manufacturer/Assembler

Designators

Expiration 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.5 NPS	1-3 NPS	0.06 in ²	[C] 0.2756 in	0.069 in	15-10000 psi	Water	UV, V
0.75-2 NPS	1-3 NPS	0.1053 in ²	[DS] 0.3661 in	0.0945 in	15-10000 psi	Water	UV
0.75-2 NPS	1-3 NPS	0.1368 in ²	[D] 0.4173 in	0.106 in	15-10000 psi	Water	UV, V
15-15 mm	1-3 NPS	0.1368 in ²	[D] 0.4173 in	0.106 in	15-10000 psi	Water	UV, V
0.75-2 NPS	1-3 NPS	0.1872 in ²	[ES] 0.4882 in	0.122 in	15-10000 psi	Water	UV
0.75-2 NPS	1-3 NPS	0.2812 in ²	[E] 0.5984 in	0.15 in	15-10000 psi	Water	UV, V
1-2 NPS	2-3 NPS	0.3772 in ²	[F] 0.693 in	0.174 in	15-10000 psi	Water	UV, V
1.5-2 NPS	2-4 NPS	0.5217 in ²	[GS] 0.815 in	0.205 in	15-10000 psi	Water	UV
1.5-2 NPS	2-4 NPS	0.5945 in ²	[G] 0.87 in	0.221 in	15-10000 psi	Water	UV, V
1.5-2 NPS	2-4 NPS	0.9212 in ²	[H] 1.083 in	0.272 in	15-10000 psi	Water	UV, V
2-3 NPS	3-6 NPS	1.089 in ²	[JS] 1.177 in	0.295 in	15-3000 psi	Water	UV
1.5-2 NPS	2-4 NPS	1.095 in ²	[H2] 1.181 in	0.295 in	15-10000 psi	Water	UV, V
2-3 NPS	3-6 NPS	1.491 in ²	[J] 1.378 in	0.346 in	15-3000 psi	Water	UV, V
2.5-3 NPS	3-6 NPS	2.128 in ²	[K] 1.646 in	0.413 in	15-3000 psi	Water	UV, V
3-4 NPS	4-6 NPS	3.317 in ²	[L] 2.055 in	0.517 in	15-3500 psi	Water	UV, V
4 NPS	6 NPS	3.643 in ²	[MS] 2.154 in	0.539 in	15-3000 psi	Water	UV
4-4 NPS	6 NPS	4.165 in ²	[M] 2.303 in	0.579 in	15-3000 psi	Water	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 in ²	[A] 14.055 in	3.516 in	15-500 psi	Water	UV, V
20-20 NPS	24 NPS	191.87 in ²	[B] 15.63 in	3.91 in	15-500 psi	Water	UV, V

Design Name: RP Series

NBCert #

27054

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

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
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	Air	UV
1-2 NPS	2 NPS	0.124 in ²	[D] 0.397 in	0.1 in	15-6000 psi	Steam	UV
1-2 NPS	2 NPS	0.219 in ²	[E] 0.528 in	0.134 in	15-10000 psi	Air	UV
1-2 NPS	2 NPS	0.219 in ²	[E] 0.528 in	0.134 in	15-6000 psi	Steam	UV
1-2 NPS	2 NPS	0.343 in ²	[F] 0.661 in	0.166 in	15-10000 psi	Air	UV
1-2 NPS	2 NPS	0.343 in ²	[F] 0.661 in	0.166 in	15-6000 psi	Steam	UV
1.25-3 NPS	3, 4 NPS	0.562 in ²	[G] 0.846 in	0.212 in	15-10000 psi	Air	UV
1.25-3 NPS	3, 4 NPS	0.562 in ²	[G] 0.846 in	0.212 in	15-6000 psi	Steam	UV
1.5-2 NPS	3, 4 NPS	0.874 in ²	[H] 1.055 in	0.264 in	15-10000 psi	Air	UV
1.5-2 NPS	3, 4 NPS	0.874 in ²	[H] 1.055 in	0.264 in	15-6000 psi	Steam	UV
1.5-3 NPS	3, 4 NPS	1.35 in ²	[I] 1.311 in	0.328 in	15-6000 psi	Air	UV
1.5-3 NPS	3, 4 NPS	1.35 in ²	[I] 1.311 in	0.328 in	15-6000 psi	Steam	UV
2-3 NPS	3,4 NPS	1.431 in ²	[J] 1.35 in	0.338 in	15-10000 psi	Air	UV
2-3 NPS	3,4 NPS	1.431 in ²	[J] 1.35 in	0.338 in	15-6000 psi	Steam	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 in ²	[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 in ²	[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: RPSL (Liquids) NBCert # 27065

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer	UV	09/09/2024
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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 in ²	[H] 1.055 in	0.264 in	15-10000 psi	Water	UV
1.5-3 NPS	3, 4 NPS	1.35 in ²	[I] 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 in ²	[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 in ²	[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: RTE NBCert # 27144

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	02/22/2027

Design Type

[Safety Relief Valve] RTE
Capacity Tests: Sec. UV at National Board Testing Lab on October 27, 2004
Method of Establishing Relieving Capacity: Flow Capacity, Slope
Certified Value: 2.200 SCFM/PSIA; (alternate medium): 6.180 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: Fukui Seisakusho Company, Limited {FKI}

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: RTE Liquid NBCert # 27133

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 02/22/2027

Design Type

[Relief Valve] RTE Liquid
 Capacity Tests: Sec. UV at National Board Testing Lab on October 26, 2004
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 3.980 GPM/SQ.RT. PSID
 Media - Test: Water/Liquid; Certified: Liquid
 Set Pressure Definition: Heavy Flow
 Blowdown Characteristics: Fixed
 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
0.75-1 NPS	1, 2 NPS	0.137 in ²	0.417 in	0.106 in	50-15000 psi	Water	UV

Design Name: SL Series NBCert # 27076

Manufacturer/Assembler	Designators	Expiration Date
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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: Fukui Seisakusho Company, Limited {FKI}

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 in ²	[106.9] 4.209 in	1.055 in	15-1500 psi	Steam	UV, V
6 NPS	8-10 NPS	16.1 in ²	[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 Name: SL-xxxx PA

NBCert # 27199

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

Design Type

[Power Actuated Relief Valve] SL-xxxx PA
 Capacity Tests: Sec. V at National Board Testing Lab on September 24, 2015
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.878 Unitless
 Media - Test: Steam; Certified: Steam
 Set Pressure Definition: Power Actuated
 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
0.75-1 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
4-6 NPS	6-8 NPS	6.487 in ²	[73] 2.874 in	0.72 in	15-3000 psi	Steam	V
4-6 NPS	6-8 NPS	6.793 in ²	[74.7] 2.941 in	0.736 in	15-3000 psi	Steam	V
4-6 NPS	6-8 NPS	6.975 in ²	[P] 2.98 in	0.748 in	15-3000 psi	Steam	V
4-6 NPS	6-8 NPS	7.388 in ²	[77.9] 3.067 in	0.768 in	15-3000 psi	Steam	V
4.5-6 NPS	8-10 NPS	8.184 in ²	[82] 3.228 in	0.807 in	15-3000 psi	Steam	V
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 in ²	[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

This Company Manufactures or Assembles:

Design Name: 8100	NBCert # 49047	
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	06/23/2027

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 in ²	[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
12 NPS	12 x 2 NPS	67.2235 in ²	[W] 9.2516 in	2.313 in	15-160 psi	Air	UV
12 NPS	12 x 2 NPS	67.2235 in ²	[W] 9.2516 in	2.313 in	15-160 psi	Steam	UV

Design Name: 81P (Liquids) NBCert # 01102

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

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 Name: 8200 NBCert # 49058

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 NBCert # 15499

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 in ²	[#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	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 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 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#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: BP

NBCert #

15501

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

Design Type

[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/Assembler	Designators	Expiration Date
Manufacturer	UV	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

Design Name: JLT-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABL NBCert # 15512

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 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 in ²	[T] 6.114 in	2.361 in	15-740 psi	Air	UV

Design Name: JLT-JOS-RL/JLT-JBS-RL/JLT-JDS-RL
(Liquids) (Restricted lift version of Certification 15095) NBCert # 01393

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV Expiration Date 02/13/2025

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}

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	Water	NV
0.75-1.5 NPS	2 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.08 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.082 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.082 in	15-6170 psi	Water	UV, V
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.103 in	15-6170 psi	Water	NV
1-1.5 NPS	2 - 3 NPS	0.3473 in ²	[F] 0.665 in	0.103 in	15-6170 psi	Water	UV, V
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.131 in	15-6170 psi	Water	NV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	0.131 in	15-6170 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.137 in	15-2500 psi	Water	NV
1.5-2 NPS	3 NPS	0.6249 in ²	0.892 in	0.137 in	15-2500 psi	Water	UV, V
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.164 in	15-3705 psi	Water	NV
1.5-2 NPS	3 NPS	0.8874 in ²	[H] 1.063 in	0.164 in	15-3705 psi	Water	UV, V
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 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-RL/JLT-JBS-RL/JLT-JDS-RL (Restricted Lift version of Certification 15512) NBCert # 01382

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	02/13/2025

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 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 Lift version of cert 15208) NBCert # 01045

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	02/13/2025

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 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 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 30529 United States

This Company Manufactures or Assembles:

Design Name:	H5600, H5601 & H5602	NBCert #	70018
Manufacturer/Assembler	Designators	Expiration Date	
Manufacturer	UV	09/02/2026	
Design Type			
[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

Design Name:	H5600A	NBCert #	70030
Manufacturer/Assembler	Designators	Expiration Date	
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, H5602R NBCert # 70041

Manufacturer/Assembler	Designators	Expiration Date
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: Hansen Technologies Corporation {HTL}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-0.75 NPS	.75 - 1 NPS	0.0498 in ²	0.515 in	0.125 in	150-400 psi	Air	UV

Design Name: H5604 NBCert # 70029

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/04/2026

Design Type

[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: H5613 NBCert # 70007

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/04/2026

Design Type

[Safety Relief Valve] H5613
 Capacity Tests: Sec. UV at National Board Testing Lab on July 7, 1995
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 3.920 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	0.312 in ²	0.75 in	0.125 in	100-400 psi	Air	UV

Design Name: H5632R NBCert # 70052

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/24/2026

Design Type

[Safety Relief Valve] H5632R
 Capacity Tests: Sec. UV at National Board Testing Lab on April 22, 2003
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.630 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
0.75 NPS	1 NPS	0.102 in ²	0.515 in	0.125 in	150-400 psi	Air	UV

Design Name: H5633R NBCert # 70063

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/24/2026

Design Type

[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: H5634R NBCert # 70074

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/04/2026

Design Type

[Safety Relief Valve] H5634R
 Capacity Tests: Sec. UV at National Board Testing Lab on April 29, 2003
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 2.500 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	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 4XZ United Kingdom

This Company Manufactures or Assembles:

Design Name: 5230A-S, 5231A-S, 5231B-S NBCert # 01911

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 October 1, 2018
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
	.50 - .625 NPS	0.0491 in ²	0.25 in	0.157 in	203-449.6 psi	Air	UV

Design Name: 5230AX, 5231AX, 5231BX, 5233AX, 5234AX, 5235AX NBCert # 29180

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/03/2024

Design Type

[Relief Valve] 5230AX, 5231AX, 5231BX, 5233AX, 5234AX, 5235AX
 Capacity Tests: Sec. UV at National Board Testing Lab on December 1, 2014
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.847 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 Inc. {ACR}

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 in ²	150-675 psi	Air	UV

Design Name: 5232A-S, 5240-S, 5242-S, 5340-S, 5342-S NBCert # 01922

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/08/2025

Design Type

[Safety Valve] 5232A-S, 5240-S, 5242-S, 5340-S, 5342-S
 Capacity Tests: Sec. UV at National Board Testing Lab on October 2, 2018
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.375 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
	.75 NPS	0.1104 in ²	0.375 in	0.197 in	149.4-449.6 psi	Air	UV

Design Name: 5244S, 5244A-S, 5344S, 5344A-S, 5244P NBCert # 01696

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/24/2025

Design Type

[Safety Relief Valve] 5244S, 5244A-S, 5344S, 5344A-S, 5244P
 Capacity Tests: Sec. UV at National Board Testing Lab on May 9, 2019
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 2.530 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}

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: 5245-S, 5246-S, 5345-S, 5346-S, B5246 NBCert # 01933

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/24/2025

Design Type

[Safety Valve] 5245-S, 5246-S, 5345-S, 5346-S, B5246
 Capacity Tests: Sec. UV at National Board Testing Lab on October 3, 2018
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 5.456 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.25 NPS	1.250 NPS	0.3883 in ²	0.703 in	0.197 in	149.4-449.6 psi	Air	UV

Design Name: 5600 NBCert # 29146

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/08/2025

Design Type

[Safety Relief Valve] 5600
 Capacity Tests: Sec. UV at National Board Testing Lab on June 12, 1992
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 2.290 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}

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: 5601 & 5602 NBCert # 29113

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/08/2025

Design Type

[Safety Relief Valve] 5601 & 5602
 Capacity Tests: Sec. UV at Phillips Petroleum on April 12, 1965
 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: Nozzle/Full Lift
 Designed by: Henry Technologies Ltd {HNL}

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	0.125 in	150-450 psi	Air	UV

Design Name: 5603 NBCert # 29124

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/29/2024

Design Type

[Safety Relief Valve] 5603
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on July 20, 1989
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 2.773 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Gas
 Set Pressure Definition: Start-to-Leak
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Nozzle/Full Lift
 Designed by: Henry Technologies Ltd {HNL}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	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-YM, 5604-YP NBCert # 29135

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/08/2025

Design Type

[Relief Valve] 5604, 5604-YM, 5604-YP
 Capacity Tests: Sec. UV at National Board Testing Lab (Picaway) on July 20, 1989
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 5,330 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Bubble
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Nozzle/Full Lift
 Designed by: Henry Technologies Ltd {HNL}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	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, 5701GX NBCert # 01775

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	10/24/2025

Design Type

[Safety Relief Valve] 5701AX, 5701GX
 Capacity Tests: Sec. UV at National Board Testing Lab on October 2, 2018
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.808 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5 NPS	0.75 NPS	0.0614 in ²	0.2795 in	0.0984 in	667-1885 psi	Air	UV

Design Name: 5702, 5702A, 5702B, 5702C NBCert # 01764

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/09/2025

Design Type

[Safety Relief Valve] 5702, 5702A, 5702B, 5702C
 Capacity Tests: Sec. UV at National Board Testing Lab on October 3, 2018
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 2.016 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.25 NPS	1 NPS	0.134 in ²	0.4134 in	0.157 in	449.5-1885 psi	Air	UV

Horizon Valve Services Inc (HVS)

Hominy, OK 74035 United States

This Company Manufactures or Assembles:

Design Name:	Reyco R, RB & RO (Fig. 971, 973, 974)	NBCert #	73000
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/15/2027

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 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: Reyco R, RB, RO, RBO (Fig. 971, 973, 974) (liquid) NBCert # 73011

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

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: 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, 2.5, 3 NPS	0.122 in ²	[D] 0.394 in	0.12 in	15-6250 psi	Water	UV
1-1.5 NPS	2, 2.5, 3 NPS	0.217 in ²	[E] 0.526 in	0.16 in	15-6250 psi	Water	UV
1.5 NPS	2 - 3 NPS	0.34 in ²	[F] 0.658 in	0.2 in	15-6250 psi	Water	UV
1.5-2 NPS	2.5, 3 NPS	0.558 in ²	[G] 0.843 in	0.26 in	15-4905 psi	Water	UV
1.5-2 NPS	3 NPS	0.869 in ²	[H] 1.052 in	0.32 in	15-3300 psi	Water	UV
2-3 NPS	3, 4 NPS	1.427 in ²	[J] 1.348 in	0.41 in	15-3300 psi	Water	UV
3 NPS	4, 6 NPS	2.036 in ²	[K] 1.61 in	0.49 in	15-3300 psi	Water	UV
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Water	UV
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	06/15/2027

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: RL-14 & RLO-14 (0.315 in. orifice) (Liquids) NBCert # 73055

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

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 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	15-5000 psi	Water	UV

Design Name: RL14 & RLO14 (0.394 in. orifice) NBCert # 73202

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

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: RL14 & RLO14 (0.394 in. orifice) (Liquid) NBCert # 73213

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

Design Type

[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
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	15-5000 psi	Water	UV

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

Nameplate Abbreviation: IDC

Zhuhai, Guangdong, 519170 People's Republic of China

This Company Manufactures or Assembles:

Design Name: EUP3/4-150 NBCert # 00291

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	09/20/2027

Design Type

[Safety Valve] EUP3/4-150
Holder Designation:
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: 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., Ltd. {IDC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS	0.75 NPS	0.19 in ²	0.492 in	0.118 in	150-150 psi	Steam	HV

Design Name: EUP3/4-30 NBCert # 00280

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	HV	06/01/2027

Design Type

[Safety Valve] EUP3/4-30
 Holder Designation:
 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
 Designed by: IDC Plumbing & Heating Technology (Beijing) Co., Ltd. {IDC}

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	0.118 in	30-30 psi	Steam	HV

Industrial Service Solutions, LLC (WSL)

Nameplate Abbreviation: Industrial Service Solutions

Salt Lake City, UT 84119 United States

This Company Manufactures or Assembles:

Design Name: 1811, 1511

NBCert # 18122

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	03/13/2025

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
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: 1900, 1900-30 1900-35 LA & DALA (Liquids) NBCert # 18784

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	03/13/2025

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 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: 1900, 1900-30, 1900-35

NBCert #

18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	03/13/2025

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
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 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
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/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/Assembler	Designators	Expiration Date
Assembler	UV	02/02/2028

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] 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: 1900-DM NBCert # 19066

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/08/2028

Design Type

[Safety Relief Valve] 1900-DM
 Holder Designation:
 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 in ²	[U] 6.688 in	2.428 in	15-360 psi	Air	UV
8 NPS	10 NPS	35 in ²	[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: 1900-DM-E NBCert # 19099

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/08/2028

Design Type

[Safety Relief Valve] 1900-DM-E
 Holder Designation:
 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/Assembler	Designators	Expiration Date
Assembler	UV	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, 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

Integrated Plant Services, Inc. (IPS)

Nameplate Abbreviation: Integrated Plant Services

Columbus, OH 43219 United States

This Company Manufactures or Assembles:

Design Name: 1900, 1900-30 1900-35 LA & DALA (Liquids) NBCert # 18784

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

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 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: 1900, 1900-30, 1900-35 NBCert # 18201

Manufacturer/Assembler	Designators	Expiration 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
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 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
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: 1900, 1900-30, 1900-35 (R.L.)

NBCert # 18223

Manufacturer/Assembler

Designators

Expiration Date

Assembler

UV

09/23/2025

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
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 in ²	[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
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: 19000 Series NBCert # 18706

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/17/2024

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

Design Name: 19000 Series, Liquid NBCert # 18717

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/17/2024

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: 1900D-2, 1900-30D-2 NBCert # 18144

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

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

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

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

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	09/23/2025

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: 19110M & 19110H (Liquids) NBCert # 19077

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

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	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

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

Nameplate Abbreviation: JRME

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

This Company Manufactures or Assembles:

Design Name: IN-P Series (12"-78" NPS) NBCert # 01540

Manufacturer/Assembler	Designators	Expiration Date
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 Pressure Range	Media	Designator
12 NPS	12 NPS	78.776 in ²			0.5-2250 psi	Air	UD
14 NPS	14 NPS	97.342 in ²			0.5-2250 psi	Air	UD
16 NPS	16 NPS	143.464 in ²			0.5-2250 psi	Air	UD
18 NPS	18 NPS	178.071 in ²			0.5-2250 psi	Air	UD
20 NPS	20 NPS	224.149 in ²			0.5-2250 psi	Air	UD
22 NPS	22 NPS	275.579 in ²			0.5-2250 psi	Air	UD
24 NPS	24 NPS	330.358 in ²			0.5-2250 psi	Air	UD
26 NPS	26 NPS	381.907 in ²			0.5-1440 psi	Air	UD
28 NPS	28 NPS	450.438 in ²			0.5-1440 psi	Air	UD
30 NPS	30 NPS	524.62 in ²			0.5-1440 psi	Air	UD
32 NPS	32 NPS	604.455 in ²			0.5-1440 psi	Air	UD
34 NPS	34 NPS	689.941 in ²			0.5-1440 psi	Air	UD
36 NPS	36 NPS	781.08 in ²			0.5-1440 psi	Air	UD

38 NPS	38 NPS	877.87 in ²	0.5-1440 psi	Air	UD
40 NPS	40 NPS	980.313 in ²	0.5-1440 psi	Air	UD
42 NPS	42 NPS	1088.41 in ²	0.5-1440 psi	Air	UD
44 NPS	44 NPS	1202.15 in ²	0.5-1440 psi	Air	UD
46 NPS	46 NPS	1321.55 in ²	0.5-1440 psi	Air	UD
48 NPS	48 NPS	1446.6 in ²	0.5-1440 psi	Air	UD
50 NPS	50 NPS	1577.31 in ²	0.5-720 psi	Air	UD
52 NPS	52 NPS	1713.66 in ²	0.5-720 psi	Air	UD
54 NPS	54 NPS	1855.67 in ²	0.5-720 psi	Air	UD
56 NPS	56 NPS	2003.33 in ²	0.5-720 psi	Air	UD
58 NPS	58 NPS	2156.64 in ²	0.5-720 psi	Air	UD
60 NPS	60 NPS	2315.6 in ²	0.5-720 psi	Air	UD
64 NPS	64 NPS	2650.48 in ²	0.5-720 psi	Air	UD
68 NPS	68 NPS	3007.97 in ²	0.5-720 psi	Air	UD
72 NPS	72 NPS	3388.07 in ²	0.5-720 psi	Air	UD
78 NPS	78 NPS	3670.33 in ²	0.5-720 psi	Air	UD

LAM VALVES INC. (LMV)

Houston, TX 77023 United States

This Company Manufactures or Assembles:

Design Name:	Kunkle 1, 2	NBCert #	36223
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	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: Kunkle 264, 265, 266 & 267 NBCert # 36267

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/07/2024

Design Type

[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 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: Kunkle 337 NBCert # 36278

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

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
 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
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: Kunkle 541-A/542-A (.295 orifice) NBCert # 36469

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/21/2024

Design Type

[Safety Relief Valve] Kunkle 541-A/542-A (.295 orifice)
 Capacity Tests: Sec. UV at unknown lab on December 14, 2010
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.000 SCFM/PSIA
 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
0.25 NPS		0.068 in ²	0.295 in	0.126 in	15-200 psi	Air	UV

Design Name: Kunkle 541-C/542-C/548-C (.422 Orifice) NBCert # 36302

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/21/2024

Design Type

[Safety Relief Valve] Kunkle 541-C/542-C/548-C (.422 Orifice)
 Capacity Tests: Sec. UV at unknown lab on May 20, 1988
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 2.000 SCFM/PSIA
 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
0.5-0.75 NPS	Side NPS	0.14 in ²	0.422 in	0.2 in	15-400 psi	Air	UV

Design Name: Kunkle 548-A (.295 Orifice) NBCert # 36290

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/21/2024

Design Type

[Safety Relief Valve] Kunkle 548-A (.295 Orifice)
 Capacity Tests: Sec. UV at unknown lab on May 20, 1988
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.000 SCFM/PSIA
 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
0.25-0.375 NPS	Side NPS	0.068 in ²	0.295 in	0.126 in	15-400 psi	Air	UV

Design Name: Kunkle 6000, 6252 Series NBCert # 36324

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	05/21/2024

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 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 910 to 919

NBCert #

36100

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/07/2024

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: Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid)

NBCert #

36111

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	08/07/2024

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}

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

Design Name: Kunkle 920, 921, 927, Agco A (High Temp. water) NBCert # 36098

Manufacturer/Assembler	Designators	Expiration Date
Assembler	V	08/07/2024

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
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	V

LCM Industries, Inc. (LCL)

Longview, TX 75604 United States

This Company Manufactures or Assembles:

Design Name: 2600 & 2600S NBCert # 57057

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	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 in ²	[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 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 in ²	[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 Name: 2600L (Liquids) NBCert # 57068

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

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 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 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 NBCert # 57237

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

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

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 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: 3800

NBCert #

57024

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 in ²	[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 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: 3800FP NBCert # 57035

Manufacturer/Assembler	Designators	Expiration 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 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 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 in ²	[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	05/10/2025

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 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 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

LCM Industries, Inc. (LCM)

Odessa, TX 79763 United States

This Company Manufactures or Assembles:

Design Name: 2600 & 2600S	NBCert # 57057	
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 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 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 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 in ²	[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 Name: 2600L (Liquids) NBCert # 57068

Manufacturer/Assembler	Designators	Expiration Date
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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 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 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 NBCert # 57237

Manufacturer/Assembler	Designators	Expiration Date
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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

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

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

Design Name: 3800

NBCert #

57024

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 in ²	[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 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: 3800FP NBCert # 57035

Manufacturer/Assembler	Designators	Expiration 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 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 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 in ²	[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	09/07/2024

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 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

LESER GmbH & Co. KG (LES)

Hohenwestedt, 24594Germany

This Company Manufactures or Assembles:

Design Name: 526FB	NBCert # 37314	
Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/18/2026

Design Type

[Safety Relief Valve] 526FB
 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on September 5, 2014
 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 in	2, 3 in	0.239 in ²	[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 in ²	[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 in ²	[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/Assembler	Designators	Expiration Date
Manufacturer	UV	09/18/2026

Design Type

[Safety Relief Valve] 526FB (Liquid)
Capacity Tests: Sec. UV at Leser GmbH & Co., KG on April 14, 2014
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	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1-1.5 in	2, 3 in	0.239 in ²	[E] 0.551 in	0.138 in	15-7758 psi	Water	UV
1.5 in	2, 3 in	0.394 in ²	[F] 0.709 in	0.217 in	15-9210 psi	Water	UV
1.5-2 in	3 in	0.616 in ²	[G] 0.886 in	0.267 in	15-3705 psi	Water	UV
1.5-2 in	3 in	0.975 in ²	[H] 1.114 in	0.323 in	15-2750 psi	Water	UV
2-3 in	3, 4 in	1.578 in ²	[J] 1.417 in	0.453 in	15-2700 psi	Water	UV
3 in	4, 6 in	2.251 in ²	[K] 1.693 in	0.531 in	15-2220 psi	Water	UV
3-4 in	4, 6 in	3.484 in ²	[L] 2.106 in	0.669 in	15-1500 psi	Water	UV
4 in	6 in	4.426 in ²	[M] 2.374 in	0.846 in	15-1100 psi	Water	UV
4 in	6 in	5.302 in ²	[N] 2.598 in	0.827 in	15-2760 psi	Water	UV
4 in	6 in	7.79 in ²	[P] 3.15 in	1.035 in	15-1000 psi	Water	UV
6 in	8 in	13.548 in ²	[Q] 4.154 in	1.248 in	15-914 psi	Water	UV
6 in	8,10 in	19.325 in ²	[R] 4.961 in	1.496 in	15-522 psi	Water	UV
6 in	10 in	31.749 in ²	[T] 6.358 in	1.929 in	15-522 psi	Water	UV

Design Name: 810/820 (811/821)

NBCert #

37280

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/11/2026

Design Type

[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
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 in ²	[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: 820 (liquid) (821) NBCert # 37268

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	11/11/2026

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 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 28273 United States

This Company Manufactures or Assembles:

Design Name: 437		NBCert # 37213	
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 Name: 437 (Liquids) NBCert # 37189

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

Design Type

[Relief Valve] 437 (Liquids)
 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 22, 2001
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 1.540 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	.5 - 1 NPS	0.082 in ²	0.394 in	0.055 in	15-2610 psi	Water	UV

Design Name: 438 Sub Types 481, 439 NBCert # 37190

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/05/2024

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 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: 438 Sub Types 481, 439, Liquids NBCert # 37202

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

Design Type

[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 Name: 441/442/444 NBCert # 37044

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

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

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5,2 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 in ²	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 in ²	4.921 in	1.506 in	15-290 psi	Air	UV
6 NPS	10 NPS	19.021 in ²	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 in ²	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 in ²	11.614 in	3.554 in	15-175 psi	Air	UV
16 NPS	20 NPS	105.94 in ²	11.614 in	3.554 in	15-175 psi	Steam	UV

Design Name: 441/442/444 liquids NBCert # 37055

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

Design Type

[Relief Valve] 441/442/444 liquids
 Capacity Tests: Sec. UV at Leser GmbH & Co., KG on September 6, 1996
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.521 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	1.5,2 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 in ²	11.614 in	3.554 in	15-175 psi	Water	UV

Design Name: 447 Air/Gas NBCert # 37123

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

Design Type

[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 # 37101

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 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
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: 483, 484, 485 (1") Liquids NBCert # 37156

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

Design Type

[Relief Valve] 483, 484, 485 (1") Liquids
Capacity Tests: Sec. UV at Leser GmbH & Co., KG on January 8, 2001
Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
Certified Value: 2.960 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 NPS	1.5 NPS	0.157 in ²	0.512 in	0.098 in	15-232 psi	Water	UV

Design Name: 483, 484, 485 (1.5") NBCert # 37167

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

Design Type

[Safety Relief Valve] 483, 484, 485 (1.5")
Capacity Tests: Sec. UV at Leser GmbH & Co., KG on February 1, 2001
Method of Establishing Relieving Capacity: Flow Capacity, Slope
Certified Value: 4.960 SCFM/PSIA; (alternate medium): 13.930 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
1.5 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: 483, 484, 485 (1.5") Liquids NBCert # 37178

Manufacturer/Assembler	Designators	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 #

37022

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 in ²	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 #

37033

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

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: 526 NBCert # 37224

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

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 in² [T] 6.358 in 1.931 in 15-522 psi Steam UV

Design Name: 526 (Liquids) NBCert # 37235

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

[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	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: 526D NBCert # 37246

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	08/30/2024
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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 in² [D] 0.551 in 0.0551 in 15-7975 psi Air UV

Design Name: 526D Liquids NBCert # 37257

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	07/12/2024
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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: 810/820 (811/821) NBCert # 37280

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	04/06/2027
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Design Type

[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
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 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

Design Name: 820 (liquid) (821) NBCert # 37268

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/29/2027

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 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

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

This Company Manufactures or Assembles:

Design Name: 437	NBCert # 37213
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/12/2024

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 Name: 437 (Liquids)	NBCert # 37189
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/13/2024

Design Type

[Relief Valve] 437 (Liquids)
 Capacity Tests: Sec. UV at Leser Gmbh & Co., KG on November 22, 2001
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 1.540 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	.5 - 1 NPS	0.082 in ²	0.394 in	0.055 in	15-2610 psi	Water	UV

Design Name: 438 Sub Types 481, 439	NBCert # 37190
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/12/2024

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 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: 438 Sub Types 481, 439, Liquids NBCert # 37202

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/13/2024

Design Type

[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 Name: 441/442/444 NBCert # 37044

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/13/2024

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

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5,2 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 in ²	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 in ²	4.921 in	1.506 in	15-290 psi	Air	UV
6 NPS	10 NPS	19.021 in ²	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 in ²	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 in ²	11.614 in	3.554 in	15-175 psi	Air	UV
16 NPS	20 NPS	105.94 in ²	11.614 in	3.554 in	15-175 psi	Steam	UV

Design Name: 441/442/444 liquids

NBCert #

37055

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/13/2024

Design Type

[Relief Valve] 441/442/444 liquids
 Capacity Tests: Sec. UV at Leser GmbH & Co., KG on September 6, 1996
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.521 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	1.5,2 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 in ²	11.614 in	3.554 in	15-175 psi	Water	UV

Design Name: 459/462 NBCert # 37112

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/13/2024

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 # 37101

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/13/2024

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

1-2 NPS 1.5-2 NPS 0.373 in² 0.689 in 0.159 in 15-1470 psi Water UV

Design Name: 526 NBCert # 37224

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

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: 526 (Liquids)

NBCert #

37235

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

Design Type

[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	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: 526D

NBCert #

37246

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

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: 526D Liquids NBCert # 37257

Manufacturer/Assembler	Designators	Expiration 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: 810/820 (811/821) NBCert # 37280

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	12/13/2027

Design Type

[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
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 in ²	[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: 820 (liquid) (821)

NBCert #

37268

Manufacturer/Assembler	Designators	Expiration Date
Assembler	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 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

Mercer, WI 54547 United States

This Company Manufactures or Assembles:

Design Name:	81-100000 Series	NBCert #	38001
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/14/2024

Design Type
[Safety Relief Valve] 81-100000 Series Capacity Tests: Sec. UV at unknown lab on November 21, 1984 Method of Establishing Relieving Capacity: Flow Capacity, Slope Certified Value: 3.100 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
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
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/14/2024

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:	9100	NBCert #	38056
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/14/2024

Design Type

[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

This Company Manufactures or Assembles:

Design Name: Series 3	NBCert #	90111
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UD	01/23/2027

Design Type

[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 in ²	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

Design Name: Series 3 w. Dial Vac. Support NBCert # 90144

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

Design Type

[Rupture Disk Device] Series 3 w. Dial Vac. Support
 Holder Designation: 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 in ²			1-20 psi		UD
12 NPS		57.52 in ²			0.5-20 psi		UD
14 NPS		70.99 in ²			0.5-20 psi		UD
16 NPS		105.71 in ²			0.5-20 psi		UD
18 NPS		119.96 in ²			0.5-20 psi		UD
2 NPS		1.37 in ²			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: Series 3 w/Bar Vac. Support NBCert # 90122

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	08/07/2026

Design Type

[Rupture Disk Device] Series 3 w/Bar Vac. Support
 Holder Designation: 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 Pressure Range	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 in ²			0.5-20 psi		UD
14 NPS		110 in ²			0.5-20 psi		UD
16 NPS		151 in ²			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 in ²			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 50313 United States

This Company Manufactures or Assembles:

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

Design Name: 243/249/443/449/546/843/849/943/5046/50
 49/8043/8049 NBCert # 01292

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: 253/259/453/459/853/859/953/959/5059/8053/8059 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 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: 263/269/463/469/566/863/869/963/969/5066/5069 NBCert # 01315

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

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 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: 443/449/546/843/849/943/949/5046/5049 (Liquids) NBCert # 01337

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

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

Design Name: 453/459/853/859/953/959/5059 (Liquids) NBCert # 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 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 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: 81, 81P, 83, 86 NBCert # 01089

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

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 Name: 81P (Liquids) NBCert # 01102

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

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 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 in ²	[#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	Designators	Expiration Date
Assembler	UV	08/27/2024

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 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#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 #

15095

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

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 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 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-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABLNBCert # 15512

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	08/27/2024
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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 in ²	[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-E, 8400, AC/AB NBCert # 15208

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 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 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

MOTOYAMA ENGINEERING WORKS, LTD. (MTY)

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

This Company Manufactures or Assembles:

Design Name: 900 (Air, Gas and Steam)	NBCert # 40093
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/10/2025

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 in ²	[#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 Name: 900 (Liquids)	NBCert # 40105
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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: 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 in ²	[#5] 0.328 in	0.106 in	15-10000 psi	Water	UV
0.75-1 NPS	1, 1.5 NPS	0.1244 in ²	[#6] 0.398 in	0.128 in	15-10000 psi	Water	UV
1-1.5 NPS	1.5 NPS	0.2198 in ²	[#7] 0.529 in	0.17 in	15-5000 psi	Water	UV
1.5-2 NPS	2 NPS	0.3473 in ²	[#8] 0.665 in	0.215 in	15-5000 psi	Water	UV
1.5 NPS	2.5 NPS	0.5674 in ²	[#9] 0.85 in	0.274 in	15-5000 psi	Water	UV

Design Name: H (HS,HSA,HC,HCA, HJ) NBCert # 40004

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV, V	04/10/2025

Design Type

[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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1.5 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
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	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 NPS	6 NPS	3.965 in ²	[M] 2.247 in	0.561 in	15-3100 psi	Steam	V
3-4 NPS	6 NPS	4.382 in ²	[M2] 2.362 in	0.59 in	15-3100 psi	Steam	V
4-6 NPS	6 - 10 NPS	4.788 in ²	[N] 2.469 in	0.617 in	15-3100 psi	Steam	V
4 NPS	6 NPS	7.031 in ²	[P] 2.992 in	0.748 in	15-1500 psi	Steam	V
6 NPS	8 NPS	12.174 in ²	[Q] 3.937 in	0.984 in	15-1500 psi	Steam	V
6 NPS	8, 10 NPS	17.639 in ²	[R] 4.739 in	1.184 in	15-1200 psi	Steam	V
8 NPS	10 NPS	28.624 in ²	[T] 6.037 in	1.509 in	15-500 psi	Steam	V

Design Name: JLT-JNO, JLT-JNB (Liquids) NBCert # 40015

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/10/2025

Design Type

[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 NBCert # 40059

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/10/2025

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}

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	0.117 in	15-2900 psi	Steam	UV
0.75-1.5 NPS	1 - 3 NPS	0.1244 in ²	[D] 0.398 in	0.117 in	15-6000 psi	Air	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.156 in	15-2900 psi	Steam	UV
1-1.5 NPS	2 - 3 NPS	0.2214 in ²	[E] 0.531 in	0.156 in	15-6000 psi	Air	UV
1.5 NPS	2 - 3 NPS	0.347 in ²	[F] 0.665 in	0.196 in	15-2900 psi	Steam	UV
1.5 NPS	2 - 3 NPS	0.347 in ²	[F] 0.665 in	0.196 in	15-5000 psi	Air	UV
1.5-2 NPS	2.5, 3 NPS	0.5674 in ²	[G] 0.85 in	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, 46754 Republic of Korea

This Company Manufactures or Assembles:

Design Name:	SC 32	NBCert #	00549
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 March 30, 2015
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}

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 in ²	[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 in ²	[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 in ²	[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 in ²	[T] 5.984 in	1.496 in	15-300 psi	Air	UV
8 NPS	10 NPS	29.244 in ²	[T] 5.984 in	1.496 in	15-300 psi	Steam	UV
10 NPS	14 NPS	47.97 in ²	[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 in ²	[Z] 13.504 in	3.368 in	15-500 psi	Air	UV

18 NPS	24 NPS	155.15 in ²	[Z] 13.504 in	3.368 in	15-500 psi	Steam	UV
20 NPS	24 NPS	191.87 in ²	[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: SC 32 (Liquid) NBCert # 00550

Manufacturer/Assembler	Designators	Expiration Date
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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) NBCert # 00572

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

Design Type

[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}

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

PCE Pacific, Inc. (TSR)

Everett, WA 98203 United States

This Company Manufactures or Assembles:

Design Name: 243/249/443/449/546/843/849/943/5046/50 NBCert # 01292
 49/8043/8049

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

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 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: 253/259/453/459/853/859/953/959/5059/8053/8059 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 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: 263/269/463/469/566/863/869/963/969/5066/5069 NBCert # 01315

Manufacturer/Assembler	Designators	Expiration 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: 443/449/546/843/849/943/949/5046/5049 (Liquids) NBCert # 01337

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/14/2025

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

Design Name: 453/459/853/859/953/959/5059 (Liquids) NBCert # 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 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 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: 463/469/566/863/869/963/969/5066/5069 (Liquids) NBCert # 01348

Manufacturer/Assembler	Designators	Expiration Date
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/Assembler	Designators	Expiration Date
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 Name: 81P (Liquids) NBCert # 01102

Manufacturer/Assembler	Designators	Expiration 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 Name: 900 Series (Liquid), 7700, SNC NBCert # 15499

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

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 in ²	[#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	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 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#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 # 15095

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 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-JOS/JLT-JBS/JLT-JDS, 8500, ACL/ABLNBCert # 15512

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 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 in ²	[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-E, 8400, AC/AB NBCert # 15208

Manufacturer/Assembler	Designators	Expiration Date
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 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 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

Design Name: Kunkle 300,600 NBCert # 36076

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

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: Kunkle 337

NBCert # 36278

Manufacturer/Assembler	Designators	Expiration 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 [designator] 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: Kunkle 6000, 6252 Series

NBCert #

36324

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	02/02/2025

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 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 910 to 919 NBCert # 36100

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

Design Name: Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid) NBCert # 36111

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

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}

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

Design Name: Kunkle 920, 921, 927, Agco A (High Temp. water) NBCert # 36098

Manufacturer/Assembler	Designators	Expiration Date
Assembler	V	02/01/2025

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
2-2.5 NPS	3 NPS	1.415 in ²	[J] 1.342 in	0.363 in	15-800 psi	Steam	V

Permian Valve Repair, Inc. (PER)

Odessa, TX 79764 United States

This Company Manufactures or Assembles:

Design Name: Reyco R, RB & RO (Fig. 971, 973, 974) NBCert # 73000

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/07/2027

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 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: Reyco R, RB, RO, RBO (Fig. 971, 973, 974) (liquid) NBCert # 73011

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/07/2027

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: 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, 2.5, 3 NPS	0.122 in ²	[D] 0.394 in	0.12 in	15-6250 psi	Water	UV
1-1.5 NPS	2, 2.5, 3 NPS	0.217 in ²	[E] 0.526 in	0.16 in	15-6250 psi	Water	UV
1.5 NPS	2 - 3 NPS	0.34 in ²	[F] 0.658 in	0.2 in	15-6250 psi	Water	UV
1.5-2 NPS	2.5, 3 NPS	0.558 in ²	[G] 0.843 in	0.26 in	15-4905 psi	Water	UV
1.5-2 NPS	3 NPS	0.869 in ²	[H] 1.052 in	0.32 in	15-3300 psi	Water	UV
2-3 NPS	3, 4 NPS	1.427 in ²	[J] 1.348 in	0.41 in	15-3300 psi	Water	UV
3 NPS	4, 6 NPS	2.036 in ²	[K] 1.61 in	0.49 in	15-3300 psi	Water	UV
3-4 NPS	4, 6 NPS	3.16 in ²	[L] 2.006 in	0.61 in	15-2900 psi	Water	UV
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	04/07/2027

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: RL-14 & RLO-14 (0.315 in. orifice) (Liquids) NBCert # 73055

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/07/2027

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 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	15-5000 psi	Water	UV

Design Name: RL14 & RLO14 (0.394 in. orifice) NBCert # 73202

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/07/2027

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

Pioneer Industrial Corporation (PII)

Kansas City, MO 64108 United States

This Company Manufactures or Assembles:

Design Name: 1900, 1900-30 1900-35 LA & DALA (Liquids) NBCert # 18784

Manufacturer/Assembler	Designators	Expiration Date
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 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: 1900, 1900-30, 1900-35 NBCert # 18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	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 in ²	[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
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/Assembler

Designators

Expiration Date

Assembler

UV

06/08/2024

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 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

Pioneer Industrial Corporation (PLA)

Nameplate Abbreviation: PRV

Hastings, NE 68901 United States

This Company Manufactures or Assembles:

Design Name: 1811, 1511

NBCert #

18122

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	08/02/2024

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 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 & DALA (Liquids)

NBCert #

18784

Manufacturer/Assembler	Designators	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 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: 1900, 1900-30, 1900-35 NBCert # 18201

Manufacturer/Assembler	Designators	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 in ²	[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
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/Assembler

Designators

Expiration Date

Assembler

UV

08/02/2024

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 Name: 19000 Series, Liquid NBCert # 18717

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/02/2024

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 Name: 1900D-2, 1900-30D-2 NBCert # 18144

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/02/2024

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}

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/Assembler	Designators	Expiration Date
Assembler	UV	08/02/2024

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/02/2024

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 # 18762

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/02/2024

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: 19110M & 19110H (Liquids) NBCert # 19077

Manufacturer/Assembler	Designators	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 Name: 1982 NBCert # 18379

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/02/2024

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, 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: 1982 LS, 820000LS NBCert # 18380

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/02/2024

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

Pioneer Industrial Corporation (ZLT)

Nameplate Abbreviation: Pioneer Industrial - St. Louis

St. Louis, MO 63104 United States

This Company Manufactures or Assembles:

Design Name:	1900, 1900-30 1900-35 LA & DALA (Liquids)	NBCert #	18784
Manufacturer/Assembler	Designators	Expiration Date	
Assembler	UV	06/12/2024	

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 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: 19000 Series

NBCert # 18706

Manufacturer/Assembler	Designators	Expiration 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: 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/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 # 18762
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/12/2024

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: 2900 (39PV & 39MV pilots - Liquid) NBCert # 18874

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 Name: 2900 (39PV & 39MV pilots)

NBCert #

18863

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2027

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
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 in ²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV

8 NPS	10 NPS	35 in ²	[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/Assembler	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

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 in ²	9.437 in	3 in	15-750 psi	Steam	UV

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

NBCert # 18458

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2027

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 [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

Portersville PRD LLC (PRT)

Nameplate Abbreviation: Portersville
PRD - TN

Blountville, TN 37617 United States

This Company Manufactures or Assembles:

Design Name: 2600 & 2600S	NBCert # 57057	
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/15/2028

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 in ²	[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 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 in ²	[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 Name: 2600L (Air & Steam) NBCert # 57260

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/15/2028

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 in ²	[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 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 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV

Design Name: 2600L (Liquids) NBCert # 57068

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/15/2028

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 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 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

NBCert # 57237

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/15/2028

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 Name: 2700L, 3700L (Liquids) NBCert # 57248

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/15/2028

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

Portersville PRD LLC (PVE)

New Castle, PA 16101 United States

This Company Manufactures or Assembles:

Design Name: 2400 NBCert # 57451

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/13/2026

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/Assembler	Designators	Expiration Date
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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 in ²	[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 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 in ²	[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 Name: 2600L (Air & Steam) NBCert # 57260

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/07/2026

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 {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 in ²	[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 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 in ²	[U] 6.333 in	2.217 in	15-300 psi	Steam	UV

Design Name: 2600L (Liquids)

NBCert #

57068

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/04/2025

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 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 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 NBCert # 57237

Manufacturer/Assembler	Designators	Expiration Date
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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 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

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV 10/04/2025

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 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: 3800

NBCert # 57024

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 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 in ²	[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 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
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 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 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 in ²	[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	10/04/2025

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 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 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: 4200 / 4400 NBCert # 57282

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	07/10/2027

Design Type

[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

Design Name: 6400/6600 (previously 2500 & 4600) NBCert # 57046

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 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 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

Powerhouse Valve (PWH)

Nameplate Abbreviation: PV

Newport News, VA 23607 United States

This Company Manufactures or Assembles:

Design Name: 19 Series

NBCert # 11282

Manufacturer/Assembler

Designators

Expiration Date

Assembler

UV, V

05/14/2027

Design Type

[Safety Valve] 19 Series
 Capacity Tests: Sec. UV, V at National Board Testing Lab (Picaway) on March 27, 1980
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.826 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: 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 NPS	0.129 in ²	[D] 0.406 in	0.101 in	15-300 psi	Air	UV
0.5-0.75 NPS	.75 NPS	0.129 in ²	[D] 0.406 in	0.101 in	15-300 psi	Steam	UV, V
0.75-1 NPS	1 NPS	0.23 in ²	[E] 0.541 in	0.135 in	15-300 psi	Air	UV
0.75-1 NPS	1 NPS	0.23 in ²	[E] 0.541 in	0.135 in	15-300 psi	Steam	UV, V
1-1.25 NPS	1.25 NPS	0.359 in ²	[F] 0.676 in	0.169 in	15-300 psi	Air	UV
1-1.25 NPS	1.25 NPS	0.359 in ²	[F] 0.676 in	0.169 in	15-300 psi	Steam	UV, V
1.25-1.5 NPS	1.5 NPS	0.589 in ²	[G] 0.866 in	0.217 in	15-300 psi	Air	UV
1.25-1.5 NPS	1.5 NPS	0.589 in ²	[G] 0.866 in	0.217 in	15-300 psi	Steam	UV, V
1.5-2 NPS	2 NPS	0.919 in ²	[H] 1.082 in	0.271 in	15-300 psi	Air	UV
1.5-2 NPS	2 NPS	0.919 in ²	[H] 1.082 in	0.271 in	15-300 psi	Steam	UV, V
1.5-2.5 NPS	2.5 NPS	1.509 in ²	[J] 1.386 in	0.347 in	15-300 psi	Air	UV
1.5-2.5 NPS	2.5 NPS	1.509 in ²	[J] 1.386 in	0.347 in	15-300 psi	Steam	UV, V

Design Name: 500 Series (Liquids) NBCert # 11473

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/11/2027

Design Type

[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}

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	15-1000 psi	Water	UV
0.75-1 NPS	1.25 NPS	0.229 in ²	[E] 0.539 in	0.135 in	15-1000 psi	Water	UV
1-1.25 NPS	1.5 NPS	0.359 in ²	[F] 0.676 in	0.169 in	15-1000 psi	Water	UV
1.25-1.5 NPS	2 NPS	0.589 in ²	[G] 0.866 in	0.217 in	15-1000 psi	Water	UV
1.5-2 NPS	2.5 NPS	0.919 in ²	[H] 1.082 in	0.271 in	15-1000 psi	Water	UV
2 NPS	3 NPS	1.504 in ²	[J] 1.384 in	0.346 in	15-1000 psi	Water	UV

Precision Fitting & Gauge (PFG)

Nameplate Abbreviation: PFG

Tulsa, OK 74112 United States

This Company Manufactures or Assembles:

Design Name: 1541, 1543, 1541-3, 1543-3	NBCert # 18032	
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	06/05/2024

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
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 in² [J3] 1.335 in 0.32 in 15-350 psi Air NV, UV

Design Name: 1700 & 2700 NBCert # 18100

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	V	11/15/2024
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Design Type

[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 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. # 18100) NBCert # 18111

Manufacturer/Assembler	Designators	Expiration Date
Assembler	V	11/15/2024

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 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 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 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

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 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

NBCert #

18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/22/2027

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 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

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

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: 19000 Series, Liquid NBCert # 18717

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

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: 1900D-2, 1900-30D-2 NBCert # 18144

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/22/2027

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: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	11/15/2024

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 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, 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

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 # 18032

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, 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: 1811, 1511

NBCert # 18122

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	05/25/2024

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 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 & DALA (Liquids)

NBCert # 18784

Manufacturer/Assembler	Designators	Expiration Date
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 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: 1900, 1900-30, 1900-35

NBCert #

18201

Manufacturer/Assembler	Designators	Expiration 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 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 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
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/Assembler	Designators	Expiration Date
Assembler	UV	04/17/2025

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

Design Name: 19000 Series, Liquid

NBCert # 18717

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 # 18144

Manufacturer/Assembler	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}

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/Assembler	Designators	Expiration Date
Assembler	UV, V	05/25/2024

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/25/2024

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 # 18762

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	04/14/2028

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 in ²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V

Design Name: 1982 NBCert # 18379

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/25/2024

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, 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: 1982 LS, 820000LS

NBCert # 18380

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/14/2028

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, 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

Quadco, LLC (QUA)

Brighton, CO 80603 United States

This Company Manufactures or Assembles:

Design Name: 459/462

NBCert # 37112

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/15/2027

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 # 37101

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/14/2027

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
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	04/19/2027

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: 526 (Liquids) NBCert # 37235

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/19/2027

Design Type

[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	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: 526D NBCert # 37246

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/19/2027

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: 526D Liquids NBCert # 37257

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	04/19/2027

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

Relevant Industrial, LLC, DBA Precision Fitting & Gauge, LLC (POK)

Tulsa, OK 74116 United States

This Company Manufactures or Assembles:

Design Name: 1900, 1900-30 1900-35 LA & DALA (Liquids) NBCert # 18784

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	02/10/2028

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 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: 1900, 1900-30, 1900-35 NBCert # 18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2028

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 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 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
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/Assembler	Designators	Expiration Date
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Assembler UV 02/10/2028

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/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 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

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2028

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: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	02/10/2028

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2028

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	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 in ²	[E] 0.674 in	0.093 in	15-6250 psi	Water	NV, UV, V

Design Name: 3900 (39PV, 39MV pilots) NBCert # 18447

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2028

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 in ²	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: 3900 (39PV, 39MV pilots, liquid) NBCert # 18458

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/10/2028

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 {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 in ²	9.437 in	3 in	15-1500 psi	Water	UV

REMBE GmbH Safety+Control (REM)

Nameplate Abbreviation: REMBE

Brilon, 59929Germany

This Company Manufactures or Assembles:

Design Name: IG-UKB-LS-1		NBCert # 84035	
Manufacturer/Assembler	Designators	Expiration Date	
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 in ²			55-1450 psi	Air	UD

Design Name: KUB		NBCert # 84002	
Manufacturer/Assembler	Designators	Expiration Date	
Manufacturer	UD	11/30/2027	
Design Type			
[Rupture Disk Device] KUB			
Holder Designation: 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 in ²			58-2320 psi		UD
10 NPS		68.2 in ²			5.8-725 psi		UD
12 NPS		100.7 in ²			2.9-435 psi		UD
14 NPS		133 in ²			2.9-363 psi		UD
16 NPS		171 in ²			2.9-363 psi		UD
18 NPS		230 in ²			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 in ²			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 in ²			0.7-218 psi		UD
3 NPS		7.33 in ²			21.8-1740 psi		UD
30 NPS		657 in ²			0.7-174 psi		UD
32 NPS		752 in ²			0.7-145 psi		UD
4 NPS		12.4 in ²			8.7-1595 psi		UD
5 NPS		18.6 in ²			8.7-1450 psi		UD
6 NPS		27.9 in ²			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 mm ²	[SPL]		22-750 psi		UD

Design Name: KUB (Liquid) NBCert # 84057

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	03/26/2027

Design Type

[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 in ²	58-1885 psi	Water	UD
10 NPS	68.2 in ²	5.8-725 psi	Water	UD
12 NPS	100.7 in ²	2.9-435 psi	Water	UD
14 NPS	133 in ²	2.9-363 psi	Water	UD
16 NPS	171 in ²	2.9-363 psi	Water	UD
18 NPS	230 in ²	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 in ²	1.5-290 psi	Water	UD
24 NPS	420 in ²	0.7-290 psi	Water	UD
26 NPS	480 in ²	0.7-247 psi	Water	UD
28 NPS	570 in ²	0.7-218 psi	Water	UD
3 NPS	7.33 in ²	21.8-1740 psi	Water	UD
30 NPS	657 in ²	0.7-174 psi	Water	UD
32 NPS	752 in ²	0.7-145 psi	Water	UD
4 NPS	12.4 in ²	8.7-1595 psi	Water	UD
5 NPS	18.6 in ²	8.7-1450 psi	Water	UD
6 NPS	27.9 in ²	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 psi		UD
1.5 NPS		1.75 in ²			92.8-6250 psi		UD
10 NPS		78.74 in ²			29-6250 psi		UD
12 NPS		113 in ²			29-6250 psi		UD

14 NPS	137.8 in ²	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 psi	UD
2.5 NPS	4.73 in ²	46.4-6250 psi	UD
20 NPS	290.9 in ²	29-1500 psi	UD
22 NPS	354.5 in ²	29-1500 psi	UD
24 NPS	418 in ²	29-1500 psi	UD
3 NPS	7.38 in ²	46.4-6250 psi	UD
4 NPS	12.71 in ²	29-6250 psi	UD
5 NPS	20 in ²	29-6250 psi	UD
6 NPS	28.91 in ²	29-6250 psi	UD
8 NPS	49.99 in ²	29-6250 psi	UD

Design Name: SFD-HL(HP) (Liquid) NBCert # 84080

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	02/25/2025

Design Type

[Rupture Disk Device] SFD-HL(HP) (Liquid)
 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, 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 [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 psi		UD
1.5 NPS		1.75 in ²			92.8-6250 psi		UD
10 NPS		78.74 in ²			29-6250 psi		UD
12 NPS		113 in ²			29-6250 psi		UD
14 NPS		137.8 in ²			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 psi		UD
2.5 NPS		4.73 in ²			46.4-6250 psi		UD
20 NPS		290.9 in ²			29-1500 psi		UD

22 NPS	354.5 in ²	29-1500 psi	UD
24 NPS	418 in ²	29-1500 psi	UD
3 NPS	7.38 in ²	46.4-6250 psi	UD
4 NPS	12.71 in ²	29-6250 psi	UD
5 NPS	20 in ²	29-6250 psi	UD
6 NPS	28.91 in ²	29-6250 psi	UD
8 NPS	49.99 in ²	29-6250 psi	UD

Design Name: TCR-(SGK)KUB NBCert # 84091

Manufacturer/Assembler	Designators	Expiration Date
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 in ²	0.89 in		50.9-363 psi		UD
26.9 DN		0.341 in ²	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 in ²	1.17 in		50.9-363 psi		UD
33.7 DN		0.775 in ²	1.23 in		29.1-363 psi		UD
32 DN		0.775 in ²	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 28208 United States

This Company Manufactures or Assembles:

Design Name: 243/249/443/449/546/843/849/943/5046/5049/8043/8049 NBCert # 01292

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

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 in² [T] 6.24 in 3.12 in 15-720 psi Steam UV

Design Name: 253/259/453/459/853/859/953/959/5059/8053/8059 NBCert # 01304

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	12/13/2024

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 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: 263/269/463/469/566/863/869/963/969/5066/5069 NBCert # 01315

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

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 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: 443/449/546/843/849/943/949/5046/5049 (Liquids) NBCert # 01337

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

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

Design Name: 453/459/853/859/953/959/5059 (Liquids) NBCert # 01326

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

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 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 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: 463/469/566/863/869/963/969/5066/5069 (Liquids) NBCert # 01348

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

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

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 Name: 81P (Liquids) NBCert # 01102

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

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 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	12/12/2024

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 in ²	[#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	Designators	Expiration Date
Assembler	UV	09/05/2025

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 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#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 # 15095

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

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 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 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: JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-E, 8400, AC/AB NBCert # 15208

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	03/21/2025

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 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 70809 United States

This Company Manufactures or Assembles:

Design Name: 1541, 1543, 1541-3, 1543-3 NBCert # 18032

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/04/2027

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: 1700 & 2700 NBCert # 18100

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/04/2027

Design Type

[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 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. # 18100) NBCert # 18111

Manufacturer/Assembler	Designators	Expiration Date
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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 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 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 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
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Assembler UV, V 06/18/2027

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 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 & DALA (Liquids) NBCert # 18784

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	06/19/2027

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 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: 1900, 1900-30, 1900-35 NBCert # 18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/19/2027

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 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

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/Assembler	Designators	Expiration Date
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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

Design Name: 19000 Series, Liquid NBCert # 18717

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/18/2027

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 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV

Design Name: 1900D-2, 1900-30D-2 NBCert # 18144

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/19/2027

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: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV, V 06/19/2027

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV 06/19/2027

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
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Assembler UV, V 06/19/2027

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: 2900 (39PV & 39MV pilots - Liquid) NBCert # 18874

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	06/17/2027

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 Name: 2900 (39PV & 39MV pilots) NBCert # 18863

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	02/26/2027

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
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 in ²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV
8 NPS	10 NPS	35 in ²	[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/Assembler	Designators	Expiration Date	
Assembler	UV	09/04/2027	

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 in ²	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: 3900 (39PV, 39MV pilots, liquid) NBCert # 18458

Manufacturer/Assembler	Designators	Expiration 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, 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 in ²	9.437 in	3 in	15-1500 psi	Water	UV

SETPPOINT Integrated Solutions, Inc. (WLS)

Sulphur, LA 70665 United States

This Company Manufactures or Assembles:

Design Name: 1541, 1543, 1541-3, 1543-3

NBCert #

18032

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/10/2024

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, 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: 1811, 1511

NBCert #

18122

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/02/2027

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 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 & DALA (Liquids)

NBCert # 18784

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	07/19/2024

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: 1900, 1900-30, 1900-35

NBCert #

18201

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 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
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/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
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/Assembler	Designators	Expiration Date
Assembler	UV	07/19/2024

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: 1900D-2, 1900-30D-2 NBCert # 18144

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/19/2024

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

Design Name: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	07/19/2024

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	07/19/2024

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 # 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: 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, -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: 2900 (39PV & 39MV pilots - Liquid) 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 [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 Name: 2900 (39PV & 39MV pilots) NBCert # 18863

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	05/25/2027

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
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 in ²	[U] 6.688 in	1.841 in	15-905 psi	Air	UV
8 NPS	10 NPS	35 in ²	[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 in² [W] 10.029 in 2.523 in 15-300 psi Steam UV

Design Name: 3900 (39PV, 39MV pilots) NBCert # 18447

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	04/24/2027
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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 in ²	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: 3900 (39PV, 39MV pilots, liquid)

NBCert #

18458

Manufacturer/Assembler	Designators	Expiration 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, 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 in ²	9.437 in	3 in	15-1500 psi	Water	UV

Shanghai Beiting Valves Co. Ltd. (SHB)

Shanghai, 201802People's Republic of China

This Company Manufactures or Assembles:

Design Name:	BTA-22C300C (13 mm orifice)	NBCert #	02350
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/23/2027

Design Type

[Safety Relief Valve] BTA-22C300C (13 mm orifice)
Capacity Tests: Sec. UV at National Board Testing Lab on June 16, 2020
Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
Certified Value:1245.3 SCFM
Media - Test: Air/Gas; Certified: Gas
Set Pressure Definition: Pop
Blowdown Characteristics: Fixed
Flow Area Configuration: Nozzle/Full Lift
Designed by: Shanghai Beiting Valves Co. Ltd. {SHB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.625 in		132.73 mm ²	13 mm	3.25 mm	400-400 psi	Air	UV

Design Name:	BTA-22C300C (17.5 mm orifice)	NBCert #	02361
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/23/2027

Design Type

[Safety Relief Valve] BTA-22C300C (17.5 mm orifice)
Capacity Tests: Sec. UV at National Board Testing Lab on June 16, 2020
Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
Certified Value:2320.3 SCFM
Media - Test: Air/Gas; Certified: Gas
Set Pressure Definition: Pop
Blowdown Characteristics: Fixed
Flow Area Configuration: Nozzle/Full Lift
Designed by: Shanghai Beiting Valves Co. Ltd. {SHB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.875 in		240.53 mm ²	17.5 mm	4.4 mm	450-450 psi	Air	UV

Design Name:	BTA-22C300C (24 mm orifice)	NBCert #	02372
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/23/2027

Design Type

[Safety Relief Valve] BTA-22C300C (24 mm orifice)
 Capacity Tests: Sec. UV at National Board Testing Lab on June 16, 2020
 Method of Establishing Relieving Capacity: Flow Capacity, 3 valve average
 Certified Value: 2359.2 SCFM
 Media - Test: Air/Gas; Certified: Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Nozzle/Full Lift
 Designed by: Shanghai Beiting Valves Co. Ltd. {SHB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
3 in		452.39 mm ²	24 mm	6 mm	235-235 psi	Air	UV

Design Name: BTA-22C300T (12 mm orifice) NBCert # 02338

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/23/2027

Design Type

[Safety Relief Valve] BTA-22C300T (12 mm orifice)
 Capacity Tests: Sec. UV at National Board Testing Lab on June 16, 2020
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 2.540 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Nozzle/Full Lift
 Designed by: Shanghai Beiting Valves Co. Ltd. {SHB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75 NPS	1 in	113.1 mm ²	12 mm	3 mm	150-500 psi	Air	UV

Design Name: BTA-22C300T (18 mm orifice) NBCert # 02349

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/23/2027

Design Type

[Safety Relief Valve] BTA-22C300T (18 mm orifice)
 Capacity Tests: Sec. UV at National Board Testing Lab on June 16, 2020
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 5.490 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Nozzle/Full Lift
 Designed by: Shanghai Beiting Valves Co. Ltd. {SHB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS	1.5 in	254.47 mm ²	18 mm	4.5 mm	50-500 psi	Air	UV

Design Name: BTA-22C300T (7.8 mm orifice) NBCert # 01832

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/23/2027

Design Type

[Safety Relief Valve] BTA-22C300T (7.8 mm orifice)
 Capacity Tests: Sec. UV at National Board Testing Lab on June 16, 2020
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.980 SCFM/PSIA
 Media - Test: Air/Gas; Certified: Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Nozzle/Full Lift
 Designed by: Shanghai Beiting Valves Co. Ltd. {SHB}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5 NPS	0.875 in	47.78 mm ²	7.8 mm	1.95 mm	150-500 psi	Air	UV

Shanghai Huali Safety Devices Co., Ltd. (SHS)

SHANGHAI, 201108People's Republic of China

This Company Manufactures or Assembles:

Design Name: DS NBCert # 01663

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	05/24/2025

Design Type

[Rupture Disk Device] DS
 HolderDesignation: DHA, DHA-ZK
 Capacity Tests: Sec. UD at National Board Testing Lab on December 13, 2017
 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krg
 Certified Value: 0.730 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			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 NBCert # 01652

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	09/25/2024

Design Type

[Rupture Disk Device] FS
 Holder Designation: FHA, FHA-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: 0.770 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			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 in ²			29-290 psi		UD
14 NPS		149.05 in ²			26.1-217.5 psi		UD
16 NPS		194.68 in ²			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 in ²			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 in ²			36.25-507.5 psi		UD

Design Name: RS NBCert # 01641

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 December 12, 2017
 Method of Establishing Relieving Capacity: Resistance Factor, 3 Size, Krg
 Certified Value: 3.420 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			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)

Nameplate Abbreviation: SHKT

Anting, Shanghai, 201814People's Republic of China

This Company Manufactures or Assembles:

Design Name:	11KH19xxxx	NBCert #	00628
Manufacturer/Assembler	Designators	Expiration Date	
Manufacturer	UV	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}			

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.625 in	1.25 in	285.02 mm ²	19.05 mm	4.763 mm	50-300 psi		UV

Storm Manufacturing Group (KNG)

Nameplate Abbreviation: Kingston

Torrance, CA 90501United States

This Company Manufactures or Assembles:

Design Name:	112C (.250" Orif.)	NBCert #	35019
Manufacturer/Assembler	Designators	Expiration Date	
Manufacturer	UV	02/22/2027	

Design Type

[Safety Relief Valve] 112C (.250" Orif.)
 Capacity Tests: Sec. UV at Phillips Petroleum on February 11, 1966
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.510 SCFM/PSIA; (alternate medium): 1.430 PPH/PSIA
 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}

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/Assembler**Designators****Expiration Date**

Manufacturer UV Expiration Date 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

Manufacturer/Assembler**Designators****Expiration Date**

Manufacturer UV Expiration Date 02/28/2025

Design Type

[Safety Relief Valve] 710D
 Capacity Tests: Sec. UV at National Board Testing Lab on January 23, 2013
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 2.200 SCFM/PSIA; (alternate medium): 6.180 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: Storm Manufacturing Group {KNG}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.5-1 NPS	.75, 1 NPS	0.137 in ²	[D] 0.418 in	0.104 in	15-250 psi	Steam	UV
0.5-1 NPS	.75, 1 NPS	0.137 in ²	[D] 0.418 in	0.104 in	15-400 psi	Air	UV

Design Name: Fig. 114 & 115 (.265 Orif.) NBCert # 35064

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 10/24/2026

Design Type

[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: Fig. 114 & 115 (.312" Orif.) NBCert # 35075

Manufacturer/Assembler	Designators	Expiration Date
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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: Fig. 114 (.437" Orif.) NBCert # 35031

Manufacturer/Assembler	Designators	Expiration Date
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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 by: Storm Manufacturing Group {KNG}

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: Fig. 114 (.625" Orif.) NBCert # 35042

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	12/22/2026

Design Type

[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: Fig. 118C & 119 (.359" Orif.) NBCert # 35097

Manufacturer/Assembler	Designators	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: Fig. 118C & 119 (.578" Orif) NBCert # 35109

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	04/13/2025

Design Type

[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 by: Storm Manufacturing Group {KNG}

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: KSV10-1 & KSV10-2 NBCert # 35132

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 05/22/2024

Design Type

[Safety Relief Valve] KSV10-1 & KSV10-2
 Capacity Tests: Sec. UV at National Board Testing Lab on September 18, 1997
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.283 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
0.125-0.25 NPS		0.019 in ²	0.156 in		20-300 psi	Air	UV

Design Name: KSV25 (0.25 Orifice) NBCert # 35121

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 08/17/2024

Design Type

[Safety Relief Valve] KSV25 (0.25 Orifice)
 Capacity Tests: Sec. UV at National Board Testing Lab on July 10, 1997
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 0.726 SCFM/PSIA; (alternate medium): 2.040 PPH/PSIA
 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.125-0.375 NPS		0.049 in ²	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: KSV30 NBCert # 35187

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 07/29/2026

Design Type

[Safety Relief Valve] KSV30
 Capacity Tests: Sec. UV at National Board Testing Lab on March 6, 2020
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.900 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		0.145 in ²	0.43 in	0.158 in	20-300 psi	Air	UV

Design Name: KSV35 NBCert # 35198

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	07/29/2026

Design Type

[Safety Relief Valve] KSV35
 Capacity Tests: Sec. UV at National Board Testing Lab on March 6, 2020
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 3.400 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
0.5-0.75 NPS		0.233 in ²	0.545 in	0.2 in	20-300 psi	Air	UV

Design Name: KSV40 NBCert # 35176

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	07/29/2026

Design Type

[Safety Relief Valve] KSV40
 Capacity Tests: Sec. UV at National Board Testing Lab on June 26, 2020
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 7.070 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
1-1.25 NPS		0.478 in ²	0.78 in	0.3 in	20-300 psi	Air	UV

Target Rock (TRC)

E. Farmingdale, NY 11735 United States

This Company Manufactures or Assembles:

Design Name: 2VRES-S-1 NBCert # 55280

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	10/25/2024

Design Type

[Vacuum Relief Valve] 2VRES-S-1
 Capacity Tests: Sec. NV at National Board Testing Lab on August 24, 1993
 Method of Establishing Relieving Capacity: Flow Capacity, 1 valve method
 Certified Value:61.000 SCFM
 Media - Test: Air/Gas; Certified: Air, Gas

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
2 NPS	Top NPS	0.478 in ²	1.75 in		1-0 psi	Air	NV

Design Name: 69C, 0569C-001 NBCert # 55224

Manufacturer/Assembler	Designators	Expiration Date
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 [designator] 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: 6AD, Liquids NBCert # 55291

Manufacturer/Assembler	Designators	Expiration Date
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 by: Target Rock {TRC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] 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: 6AM NBCert # 55347

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	10/25/2024

Design Type

[Safety Relief Valve] 6AM
 Capacity Tests: Sec. NV at National Board Testing Lab on June 21, 1995
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.725 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
1-2 NPS	2 - 3 NPS	0.307 in ²	0.625 in	0.21 in	60-3000 psi	Water	NV

Design Name: 6AN NBCert # 55369

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	10/25/2024

Design Type

[Safety Relief Valve] 6AN
 Capacity Tests: Sec. NV at National Board Testing Lab on June 20, 1995
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.609 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
1.5-3 NPS	2 - 4 NPS	0.785 in ²	1 in	0.33 in	40-3000 psi	Water	NV

Design Name: 6AO, 93R-024 NBCert # 55325

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	10/25/2024

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 by: Target Rock {TRC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
6 NPS	10 NPS	18.67 in ²	4.876 in	1.125 in	30-3000 psi	Water	NV

Design Name: 6AR NBCert # 55303

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	10/25/2024

Design Type

[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/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: 6AU NBCert # 55381

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	01/25/2027

Design Type

[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
 Designed by: Target Rock {TRC}

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: 6AV NBCert # 55392

Manufacturer/Assembler	Designators	Expiration Date
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 in ²	4.85 in	1.45 in	1100-1250 psi	Steam	NV

Design Name: 6AW (98V-005-3) NBCert # 55415

Manufacturer/Assembler	Designators	Expiration Date
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: 6AX (98V-005-2) NBCert # 55426

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	06/09/2027

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
 Designed by: Target Rock {TRC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
2 NPS	2.5 NPS	0.196 in ²	0.5 in	0.166 in	219-219 psi	Air	NV

Design Name: 6AY (97N-006) NBCert # 55437

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	NV	06/09/2027

Design Type

[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] dia.	Lift	Set Pressure Range	Media	Designator
4 NPS	6 NPS	4.987 in ²	2.52 in	0.8 in	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] dia.	Lift	Set Pressure Range	Media	Designator
2 NPS	2 NPS	2.4 in ²	1.75 in	0.685 in	8-0 psi	Air	NV

Design Name: 6BA (97N-016) NBCert # 55493

Manufacturer/Assembler**Designators****Expiration Date**

Manufacturer NV 11/03/2027

Design Type

[Vacuum Relief Valve] 6BA (97N-016)
 Capacity Tests: Sec. NV, -Class 1, -Class 2, -Class 3 at National Board Testing Lab on November 3, 2000
 Method of Establishing Relieving Capacity: Flow Capacity, 1 valve method
 Certified Value:1155.0 SCFM
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Initial Audible Discharge
 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
4 NPS	4 NPS	12.75 in ²	4.25 in	1.5 in	0.25-0 psi	Air	NV

Design Name: 6BC NBCert # 55527

Manufacturer/Assembler**Designators****Expiration Date**

Manufacturer NV 10/31/2025

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/Assembler	Designators	Expiration Date
Manufacturer	NV	03/20/2026

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 [designator] dia.	Lift	Set Pressure Range	Media	Designator
6 NPS	10 NPS	17.34 in ²	4.7 in	1.18 in	1100-1350 psi	Steam	NV

Design Name: 6BH NBCert # 55123

Manufacturer/Assembler	Designators	Expiration 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: Target Rock {TRC}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
	4 in	5.5 in ²	4.25 in	0.7 in	-0.3 psi	Air	NV

Oklahoma City, OK 73128 United States

This Company Manufactures or Assembles:

Design Name:	19-311000	NBCert #	56393
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/08/2026

Design Type

[Safety Relief Valve] 19-311000
 Capacity Tests: Sec. UV at National Board Testing Lab {unknown test date}
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 3.030 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}

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:	19-311000 (Liquid)	NBCert #	56405
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/08/2026

Design Type

[Relief Valve] 19-311000 (Liquid)
 Capacity Tests: Sec. UV at National Board Testing Lab {unknown test date}
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 4.790 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: Taylor Valve Technology, Inc {TTS}

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:	19-312000	NBCert #	56416
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/08/2026

Design Type

[Safety Relief Valve] 19-312000
 Media - Test: Air/Gas; Certified: Air, Gas
 Set Pressure Definition: Pop
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Annulus
 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: 19-312000 (Liquid) NBCert # 56427

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/08/2026

Design Type

[Safety Relief Valve] 19-312000 (Liquid)
 Media - Test: Water/Liquid; Certified: Liquid
 Set Pressure Definition: First Steady Stream
 Blowdown Characteristics: Fixed
 Flow Area Configuration: Annulus
 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	Water	UV

Design Name: 82-004000 NBCert # 56225

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	09/10/2024

Design Type

[Safety Relief Valve] 82-004000
 Capacity Tests: Sec. UV at National Board Testing Lab on August 19, 1997
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 1.967 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}

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: 82-005000 NBCert # 56180

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	06/23/2025

Design Type

[Safety Relief Valve] 82-005000
 Capacity Tests: Sec. UV at National Board Testing Lab on June 23, 1993
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 3.080 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}

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/Assembler	Designators	Expiration Date
Manufacturer	UV	09/10/2024

Design Type

[Safety Relief Valve] 82-006000
 Capacity Tests: Sec. UV at National Board Testing Lab on August 19, 1997
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 5.465 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}

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/Assembler	Designators	Expiration Date
Manufacturer	UV	11/13/2025

Design Type

[Safety Relief Valve] 82-007000
 Capacity Tests: Sec. UV at National Board Testing Lab on August 19, 1997
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 14.000 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}

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, 82-035000 NBCert # 56146

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/25/2024

Design Type

[Safety Relief Valve] 82-025000, 82-035000
 Capacity Tests: Sec. UV at National Board Testing Lab on July 14, 1992
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 3.240 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
0.75-1 NPS		0.212 in ²	0.52 in	0.19 in	15-2500 psi	Air	UV

Design Name: 82-025000, 82-035000 (Liquids) NBCert # 56157

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/24/2024

Design Type

[Relief Valve] 82-025000, 82-035000 (Liquids)
 Capacity Tests: Sec. UV at National Board Testing Lab on July 13, 1992
 Method of Establishing Relieving Capacity: Flow Capacity, Flow Factor
 Certified Value: 5.290 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: 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	0.212 in ²	0.52 in	0.19 in	15-2500 psi	Water	UV

Design Name: 82-055000, 82-065000 NBCert # 56168

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/24/2024

Design Type

[Safety Relief Valve] 82-055000, 82-065000
 Capacity Tests: Sec. UV at National Board Testing Lab on July 13, 1992
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 6.800 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.25-2 NPS		0.472 in ²	0.775 in	0.3 in	15-2000 psi	Air	UV

Design Name: 82-055000, 82-065000 (Liquids) NBCert # 56179

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	08/24/2024

Design Type

[Relief Valve] 82-055000, 82-065000 (Liquids)
 Capacity Tests: Sec. UV at National Board Testing Lab on July 14, 1992
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value: 10.540 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: Taylor Valve Technology, Inc {TTS}

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/Assembler	Designators	Expiration 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: 8250 Series (Liquid) NBCert # 56382

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	05/07/2025

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
 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	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 Name: 83-001000 (Air and Gas) NBCert # 56203

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 08/04/2025

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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
2.5-3 NPS	3 NPS	1.431 in ²	1.35 in	0.58 in	15-1500 psi	Air	UV

Design Name: 83-002000 (Air and Gas) NBCert # 56214

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 10/22/2025

Design Type

[Safety Relief Valve] 83-002000 (Air and Gas)
 Capacity Tests: Sec. UV at National Board Testing Lab on October 7, 1993
 Method of Establishing Relieving Capacity: Flow Capacity, Slope
 Certified Value:29.030 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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
2.5-3 NPS	3 NPS	2.138 in ²	1.65 in	0.65 in	15-1000 psi	Air	UV

Design Name: 9300, 9300M NBCert # 56315

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UV 02/03/2025

Design Type

[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: 9300FB

NBCert # 56326

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}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1.5 NPS	2, 3 NPS	1.767 in ²	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 in ²	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 Pin Relief Valve NBCert # 56630

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	11/14/2024

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 in ²	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 in ²	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 Name: Model C- Rupture Pin Relief Valve (Liquid) NBCert # 56641

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	11/14/2024

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 in ²	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)

Nameplate Abbreviation: D.K Amans Valve

Long Beach, CA 90805 United States

This Company Manufactures or Assembles:

Design Name:	78 (Pilot Operated)	NBCert #	44053
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Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/30/2027

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 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 in ²	[T] 6 in	2.99 in	29-740 psi	Steam	UV

Design Name: 78 (Pilot Operated, Liquid) NBCert # 44064

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	06/30/2027

Design Type

[Pilot Operated Pressure Relief Valve] 78 (Pilot Operated, Liquid)
 Capacity Tests: Sec. UV, V at National Board Testing Lab on August 6, 1999
 Method of Establishing Relieving Capacity: Flow Capacity, K
 Certified Value: 0.857 Unitless
 Media - Test: Water/Liquid; Certified: Liquid
 Set Pressure Definition: First Steady Stream
 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	Water	UV
1-1.5 NPS	2 NPS	0.222 in ²	[E] 0.531 in	0.53 in	26.1-6250 psi	Water	UV
1-1.5 NPS	2 NPS	0.352 in ²	[F] 0.669 in	0.53 in	26.1-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.568 in ²	[G] 0.85 in	0.7 in	26.1-6250 psi	Water	UV
1.5-2 NPS	3 NPS	0.887 in ²	[H] 1.063 in	0.7 in	26.1-6250 psi	Water	UV
2-3 NPS	3, 4 NPS	1.457 in ²	[J] 1.362 in	0.8 in	26.1-6250 psi	Water	UV
3 NPS	4 NPS	2.097 in ²	[K] 1.634 in	1.18 in	26.1-3750 psi	Water	UV
3-4 NPS	4, 6 NPS	3.229 in ²	[L] 2.028 in	1.18 in	26.1-3750 psi	Water	UV
4 NPS	6 NPS	4.095 in ²	[M] 2.283 in	1.57 in	26.1-3750 psi	Water	UV
4 NPS	6 NPS	5.143 in ²	[N] 2.559 in	1.57 in	26.1-3750 psi	Water	UV
4 NPS	6 NPS	7.069 in ²	[P] 3 in	1.57 in	26.1-3750 psi	Water	UV
6 NPS	8 NPS	12.915 in ²	[Q] 4.055 in	2.16 in	26.1-3750 psi	Water	UV
6 NPS	8 NPS	15.904 in ²	[R] 4.5 in	2.16 in	26.1-1500 psi	Water	UV

8 NPS 10 NPS 28.274 in² [T] 6 in 2.99 in 26.1-1500 psi Water UV

Design Name: 9 Series NBCert # 44019

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	06/30/2027
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Design Type

[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

Design Name: P3, P4 (liquids) NBCert # 92012

Manufacturer/Assembler	Designators	Expiration Date
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Assembler	UV	06/30/2027
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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 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 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

NBCert #

92001

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 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 in ²	[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 in ²	[T] 6.063 in	1.88 in	15-600 psi	Air	UV
8 NPS	28.871 in ²	[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 (Restricted Lift) NBCert # 44121

Manufacturer/Assembler	Designators	Expiration Date
Assembler	V	06/30/2027

Design Type

[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 in ²	[W] 8.402 in	1.155 in	30-740 psi	Steam	UV, V

TRANSWATER API SDN. BHD. (TRW)

Nameplate Abbreviation: TW

Kuantan, Pahang, 25200Malaysia

This Company Manufactures or Assembles:

Design Name:	900 Series (Liquid), 7700, SNC	NBCert #	15499
Manufacturer/Assembler	Designators	Expiration Date	
Assembler	UV	10/27/2027	

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 in ²	[#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

Unified Valve Group Ltd (UNI)

Nameplate Abbreviation: UVGL

Calgary, AB T1Y 7C1Canada

This Company Manufactures or Assembles:

Design Name:	459/462	NBCert #	37112
Manufacturer/Assembler	Designators	Expiration Date	
Assembler	UV	09/28/2024	

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 # 37101

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/28/2024

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
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

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: 526D NBCert # 37246

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/28/2024

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

Valve & Actuation Services, LLC (VSI)

Nameplate Abbreviation: Chalmers & Kubeck - TN

Chattanooga, TN 37419 United States

This Company Manufactures or Assembles:

Design Name: 1541, 1543, 1541-3, 1543-3 NBCert # 18032

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/18/2024

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

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 # 18122

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV, V 12/17/2024

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}

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: 1900, 1900-30 1900-35 LA & DALA (Liquids) NBCert # 18784

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 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: 1900, 1900-30, 1900-35 NBCert # 18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/18/2024

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 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

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/Assembler	Designators	Expiration Date
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Assembler UV 09/18/2024

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 Name: 19000 Series, Liquid NBCert # 18717

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/23/2025

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 # 18144

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/19/2024

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

Design Name: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	12/17/2024

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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900-DM NBCert # 19066

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

Design Type

[Safety Relief Valve] 1900-DM
 Holder Designation:
 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 in ²	[U] 6.688 in	2.428 in	15-360 psi	Air	UV
8 NPS	10 NPS	35 in ²	[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: 1900-DM-D NBCert # 19088

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

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
 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	0.067 in	15-10000 psi	Air	UV

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/19/2024

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 # 18762

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/23/2025

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: 19110M & 19110H (Liquids) NBCert # 19077

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/06/2027

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: 1982 NBCert # 18379

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/18/2024

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, 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: 3900 (39PV, 39MV pilots) NBCert # 18447

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 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 in ²	9.437 in	3 in	15-750 psi	Steam	UV

Design Name: 3900 (39PV, 39MV pilots, liquid) NBCert # 18458

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	08/06/2027

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 [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

Valve & Actuation Services, LLC dba Chalmers & Kubeck - AL (CKD)

Nameplate Abbreviation: Chalmers & Kubeck - AL

Decatur, AL 35601 United States

This Company Manufactures or Assembles:

Design Name: 1541, 1543, 1541-3, 1543-3 NBCert # 18032

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/22/2027

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: 1811, 1511

NBCert # 18122

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	09/22/2027

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 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 & DALA (Liquids) NBCert # 18784

Manufacturer/Assembler	Designators	Expiration Date
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Assembler UV, V 09/22/2027

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 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: 1900, 1900-30, 1900-35

NBCert #

18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/22/2027

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 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
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/Assembler	Designators	Expiration Date
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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: 19000 Series, Liquid NBCert # 18717

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/22/2027

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: 1900D-2, 1900-30D-2 NBCert # 18144

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/22/2027

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: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/Assembler	Designators	Expiration Date
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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	09/22/2027

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	09/22/2027

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

Valve & Actuation Services, LLC dba Chalmers & Kubeck - MB (CHA)

Nameplate Abbreviation: CKM

Mobile, AL 36619United States

This Company Manufactures or Assembles:

Design Name: 1541, 1543, 1541-3, 1543-3 NBCert # 18032

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	11/18/2027

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 & DALA (Liquids) NBCert # 18784

Manufacturer/Assembler	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 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: 1900, 1900-30, 1900-35

NBCert #

18201

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/18/2027

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 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
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/Assembler	Designators	Expiration 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: 19000 Series, Liquid NBCert # 18717

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	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 in ²	0.85 in	0.266 in	15-1000 psi	Water	NV

Design Name: 1900D-2, 1900-30D-2 NBCert # 18144

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/18/2027

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: 1900D-2, 1900-30D-2 LA & DALA (Liquids) NBCert # 18751

Manufacturer/Assembler	Designators	Expiration Date
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 in ²	[D] 0.674 in	0.056 in	15-6250 psi	Water	NV, UV, V

Design Name: 1900-DM-D NBCert # 19088

Manufacturer/Assembler	Designators	Expiration 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
 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	0.067 in	15-10000 psi	Air	UV

Design Name: 1900-DM-E NBCert # 19099

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	11/18/2027

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: 1900E-2, 1900-30E-2 NBCert # 18166

Manufacturer/Assembler**Designators****Expiration Date**

Assembler

UV

11/18/2027

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

11/18/2027

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

Valvulas Nacional S. A. (VNS)

Rubi (Barcelona), 08191Spain

This Company Manufactures or Assembles:

Design Name: 5100		NBCert # 96173	
Manufacturer/Assembler		Designators	Expiration Date
Manufacturer		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: 5100 (Liquid)		NBCert # 96184	
Manufacturer/Assembler		Designators	Expiration Date
Manufacturer		UV	01/18/2028
Design Type			
[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. {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	0.087 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 #

96016

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 Name: 6400 (Liquid)

NBCert #

96027

Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UV	03/05/2026

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 in ²	[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 in ²	[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 in ²	[Q] 3.937 in	1.22 in	15-595 psi	Water	UV
6 NPS	8, 10 NPS	17.53 in ²	[R] 4.724 in	1.535 in	15-305 psi	Water	UV
8 NPS	10 NPS	28.497 in ²	[T] 6.024 in	1.929 in	15-305 psi	Water	UV

Vinson Process Controls Company, LP (VIN)

Carrollton, TX 75007 United States

This Company Manufactures or Assembles:Design Name: 243/249/443/449/546/843/849/943/5046/50
49/8043/8049

NBCert #

01292

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/24/2024

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: 253/259/453/459/853/859/953/959/5059/8053/8059 NBCert # 01304

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/24/2024

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 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: 263/269/463/469/566/863/869/963/969/5066/5069 NBCert # 01315

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 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: 443/449/546/843/849/943/949/5046/5049 (Liquids) NBCert # 01337

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/24/2024

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

Design Name: 453/459/853/859/953/959/5059 (Liquids) NBCert # 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 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 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: 463/469/566/863/869/963/969/5066/5069 (Liquids) NBCert # 01348

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/24/2024

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/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 Name: 81P (Liquids) NBCert # 01102

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/24/2024

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 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	10/24/2024

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 in ²	[#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	Designators	Expiration Date
Assembler	UV	10/24/2024

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 in ²	[#10] 0.265 in	0.074 in	15-10000 psi	Air	UV
0.5-1 NPS	.5 - 1 NPS	0.0551 in ²	[#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 # 15095

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 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 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: JOS-E/JBS-E/JOS-H-E/JBS-H-E/JOS-JDS-E, 8400, AC/AB NBCert # 15208

Manufacturer/Assembler	Designators	Expiration 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
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 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

Design Name: JOS-E-RL/JBS-E-RL/JDS-E-RL (Restricted Lift version of cert 15208) NBCert # 01045

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	10/23/2024

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 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 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

VRC Protx, LLC (RIL)

New Berlin, WI 53151 United States

This Company Manufactures or Assembles:

Design Name: Kunkle 6000, 6252 Series NBCert # 36324

Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV, V	02/13/2025

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: Kunkle 910 to 919		NBCert # 36100
Manufacturer/Assembler	Designators	Expiration Date
Assembler	UV	01/29/2025

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

Design Name: Kunkle 910 to 919 (Sect. VIII Liquid), 928 and 929 (Sect. I Liquid) NBCert # 36111

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}

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

Chagrin Falls, OH 44022 United States

This Company Manufactures or Assembles:

Design Name: Inverted	NBCert # 76014
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Manufacturer/Assembler	Designators	Expiration Date
Manufacturer	UD	05/27/2025

Design Type

[Rupture Disk Device] Inverted
 Holder Designation: 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 in ²			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 # 76003
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Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer	UD	05/27/2025
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Design Type

[Rupture Disk Device] Mono
 Holder Designation: 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 in ²			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 in ²			0.25-100 psi		UD
18 NPS		233.7 in ²			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/Ring Vac. Support	NBCert # 76047
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Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer	UD	05/27/2025
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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 (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		0.44 in ²			15-20 psi		UD

Design Name: Mono Style W/Bar Vacuum Support NBCert # 76058

Manufacturer/Assembler**Designators****Expiration Date**

Manufacturer

UD

02/25/2026

Design Type

[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, LLC {ZOE}

Inlet Size	Outlet Size	Flow Area	Orifice [designator] dia.	Lift	Set Pressure Range	Media	Designator
1 NPS		0.6 in ²			10-150 psi		UD
1.5 NPS		1.34 in ²			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 in ²			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. Support NBCert # 76036

Manufacturer/Assembler	Designators	Expiration Date
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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 November 20, 1998
 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: 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

Design Name: Mono Style W/Plate Vac. Support NBCert # 76025

Manufacturer/Assembler	Designators	Expiration Date
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Manufacturer UD 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 in ²			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