

Consolidated™ 2700 Series Safety Valve

Designed to meet the fast-growing
cogeneration and waste-to-energy
segments



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Conversion Table

All the USCS values are converted to metric values using the following conversion factors:

USCS Unit	Conversion Factor	Metric Unit
in.	25.4	mm
lb.	0.4535924	kg
in ²	6.4516	cm ²
ft ³ /min	0.02831685	m ³ /min
gal/min	3.785412	L/min
lb/hr	0.4535924	kg/hr
psig	0.06894757	barg
ft lb	1.3558181	Nm
°F	$\frac{5}{9} (\text{°F} - 32)$	°C

Scope of Design

Flanged Inlet Connections								
Class	Inlet ⁽¹⁾		Valve Type	Orifice Area		Outlet		Class ⁽²⁾
	Size			in ²	cm ²	Size		
	in.	mm				in.	mm	
600	1.253	31.83	2715	0.994	6.413	3.00	76.2	150
	1.50	38.1	2715	0.994	6.413	3.00	76.2	
	1.503	38.13	2725	1.431	9.232	3.00	76.2	
	2.00	50.8	2725	1.431	9.232	3.00	76.2	
	2.003	50.83	2735	2.545	16.419	6.00	152.4	
	2.50	63.5	2735	2.545	16.419	6.00	152.4	
	2.503	63.53	2755	3.341	21.555	6.00	152.4	
	3.00	76.2	2755	3.341	21.555	6.00	152.4	
	3.00	76.2	2745	3.976	25.652	6.00	152.4	
	4.00	101.6	2765	7.070	45.613	6.00	152.4	
	6.00	152.4	2775Q	12.250	79.032	8.00	203.2	
900	1.253	31.83	2716	0.994	6.413	3.00	76.2	150
	1.50	38.1	2716	0.994	6.413	3.00	76.2	
	1.503	38.13	2726	1.431	9.232	3.00	76.2	
	2.00	50.8	2726	1.431	9.232	3.00	76.2	
	2.003	50.83	2736	2.545	16.419	6.00	152.4	
	2.50	63.5	2736	2.545	16.419	6.00	152.4	
	2.503	63.53	2756	3.341	21.555	6.00	152.4	
	3.00	76.2	2756	3.341	21.555	6.00	152.4	
	3.00	76.2	2746	3.976	25.652	6.00	152.4	
4.00	101.6	2766	7.070	45.613	6.00	152.4		
6.00	152.4	2776Q	12.250	79.032	8.00	203.2		
1500	1.50	38.1	2717	0.994	6.413	3.00	76.2	150
	2.00	50.8	2727	1.431	9.232	3.00	76.2	
	2.50	63.5	2737	2.545	16.419	6.00	152.4	
	3.00	76.2	2757	3.341	21.555	6.00	152.4	
	3.00	76.2	2747	3.976	25.652	6.00	152.4	
	4.00	101.6	2767	7.070	45.613	6.00	152.4	
	6.00	152.4	2777Q	12.250	79.032	8.00	203.2	

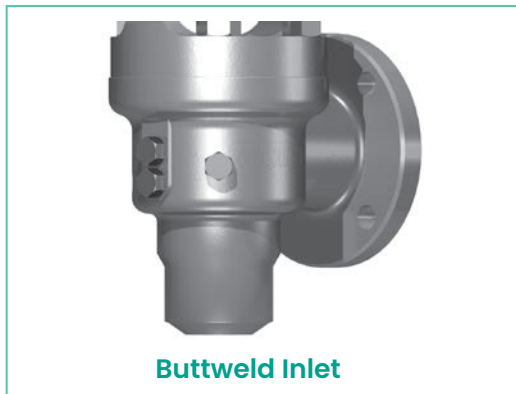
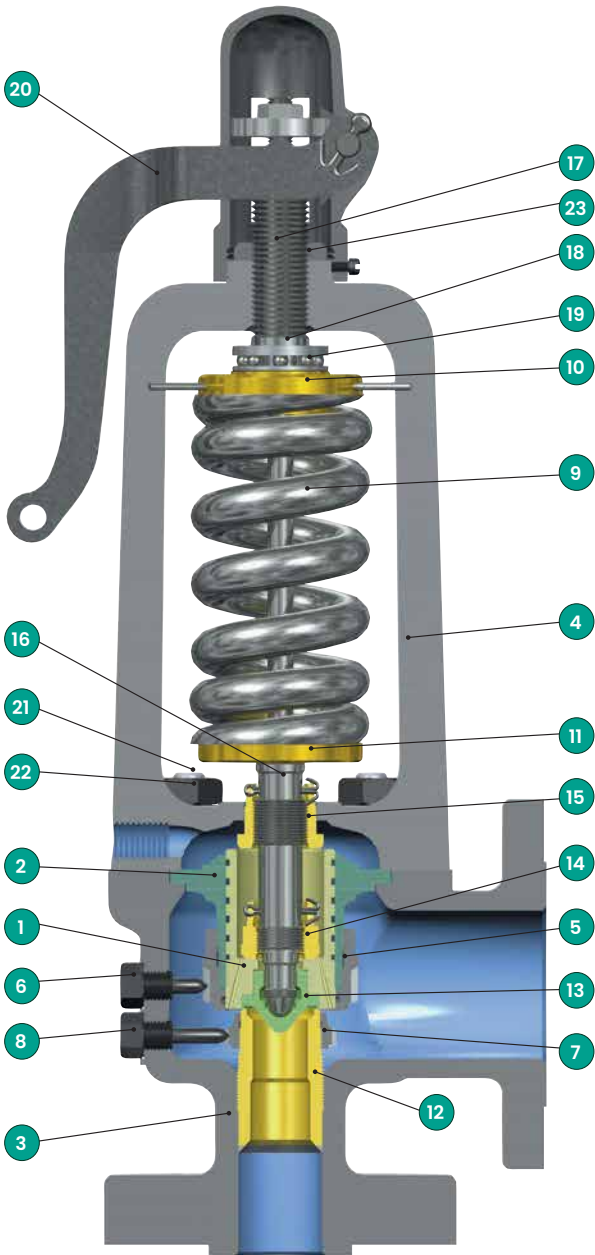
1. Available with ASME B16.5 inlet flange facings.
2. Optional 300# outlet rating available.
3. Only available as studded inlet flange.

Buttweld Inlet Connections								
Class	Inlet		Valve Type	Orifice Area		Outlet		Class ⁽¹⁾
	Size			in ²	cm ²	Size		
	in.	mm				in.	mm	
1500	1.50	38.1	2717W	0.994	6.413	3.00	76.2	150
	2.00	50.8	2727W	1.431	9.232	3.00	76.2	
	2.50	63.5	2737W	2.545	16.419	6.00	152.4	
	3.00	76.2	2757W	3.341	21.555	6.00	152.4	
	3.00	76.2	2747W	3.976	25.652	6.00	152.4	
	4.00	101.6	2767W	7.070	45.613	6.00	152.4	
	6.00	152.4	2777QW	12.250	79.032	8.00	203.2	

1. Optional 300# outlet rating available.

Materials

Flanged Inlet



Buttweld Inlet

Parts and Materials		
Ref. No.	Part	Material (-CC)
1	Disc Holder	
	2700 B - Flanged / Buttweld	ASTM B584 Leaded Nickel Silver
	2700 D - Flanged / Buttweld	ASME SA494 Gr. M25S Cl. 1 Nickel Alloy
2	Guide	
	2700 B - Flanged / Buttweld	ASTM B584 Leaded Nickel Silver
	2700 D - Flanged / Buttweld	ASME SA494 Gr. M25S Cl. 1 Nickel Alloy
3	Base	
	2700 B and D - Flanged	ASME SA217 WC6 Alloy Steel
	2700 B - Buttweld	ASME SA216 WCC Alloy Steel
	2700 D - Buttweld	ASME SA217 WC6 Alloy Steel
4	Yoke	ASME SA216 WCC Carbon Steel (CS)
5	Upper Adjusting Ring	ASTM A743 Gr. CA15 Stainless Steel (SS)
6	Upper Adjusting Ring Pin	ASTM A565 Gr. 616 SS
7	Lower Adjusting Ring	ASTM A743 Gr. CA15 SS
8	Lower Adjusting Ring Pin	ASTM A565 Gr. 616 SS
9	Spring	Alloy Steel
10	Top Spring Washer	ASTM A108 Gr. 1018, 1019, or 1020 CS
11	Bottom Spring Washer	ASTM A108 Gr. 1018, 1019, or 1020 CS
12	Seat Bushing	ASME SA479 Type 347 SS
13	Disc	ASME SB637 N07750 Type 2 Nickel Alloy
14	Disc Collar	ASTM A743 Gr. CA15 SS
15	Lift Stop	ASTM A743 Gr. CA15 SS
16	Spindle	ASME SA564/ASTM A564 Type 630 SS
17	Compression Screw	ASTM B16 Half-Hard Brass
18	Compression Screw Adaptor (4 to 7_Q Orifices Only)	ASTM A276 Type 410 Cond. T SS
19	Thrust Bearing	Steel
20	Lifting Gear	Malleable Iron
21	Studs	ASME SA193 Gr. B7 Alloy Steel
	Studs (Studded Inlet)	ASME SA193 Gr. B7 Alloy Steel
22	Nuts	ASME SA194 Gr. 2H Carbon Steel
23	Compression Screw Locknut	ASTM B584 Leaded Nickel Silver
	Cotter Pins (Not Shown)	18-8 St. St. or Commercial Grade Brass

Materials

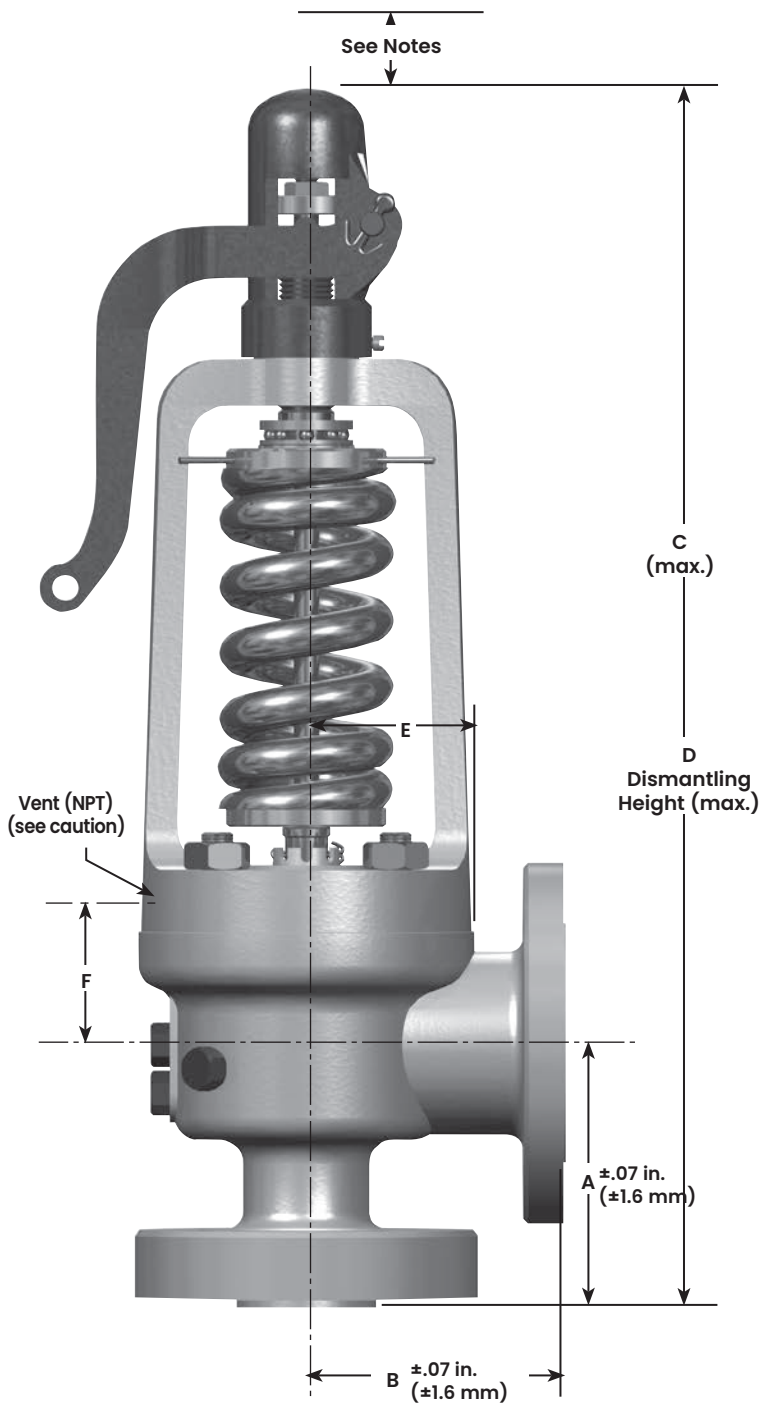
Optional Materials

Buttweld Inlet Connections		
Ref. No.	Part	Material (-CU)
1	Disc Holder	
	2700 B - Flanged / Buttweld	ASME SA351 CF8M Stainless Steel (SS) ¹
	2700 D - Flanged / Buttweld	ASME SA351 CF8M SS1
2	Guide	
	2700 B - Flanged / Buttweld	ASME SA351 CF8M SS1
	2700 D - Flanged / Buttweld	ASME SA351 CF8M SS1
3	Base	
	2700 B and D - Flanged	ASME SA217 WCC Alloy Steel
	2700 B - Buttweld	ASME SA216 WCC Alloy Steel
	2700 D - Buttweld	ASME SA217 WCC Alloy Steel
4	Yoke	ASME SA216 WCC Carbon Steel
5	Upper Adjusting Ring	ASTM A743 Gr. CA15 SS
6	Upper Adjusting Ring Pin	ASTM A565 Gr. 616 SS
7	Lower Adjusting Ring	ASTM A743 Gr. CA15 SS
8	Lower Adjusting Ring Pin	ASTM A565 Gr. 616 SS
9	Spring	Alloy Steel
10	Top Spring Washer	ASTM A108 Gr. 1018, 1019 or 1020 Carbon Steel
11	Bottom Spring Washer	ASTM A108 Gr. 1018, 1019 or 1020 Carbon Steel
12	Seat Bushing	ASME SA479 Type 316 SS
13	Disc	ASME SB637 N07750 Type 2 Nickel Alloy
14	Disc Collar	ASTM A743 Gr. CA15 SS
15	Lift Stop	ASTM A743 Gr. CA15 SS
16	Spindle	ASME SA564/ASTM A564 Type 630 SS
17	Compression Screw	ASME SA479 Type 316/316L SS
18	Compression Screw Adaptor (4 to 7_Q Orifices Only)	ASTM A276 Type 410 Cond. T SS
19	Thrust Bearing	Steel
20	Lifting Gear	Malleable Iron
21	Studs	ASME SA193 Gr. B7 Alloy Steel
	Studs (Studded Inlet)	ASME SA193 Gr. B7 Alloy Steel
22	Nuts	ASME SA194 Gr. 2H Carbon Steel
23	Compression Screw Locknut	ASME SA479 Type 316/316L SS
	Cotter Pins (Not Shown)	All 18-8 SS

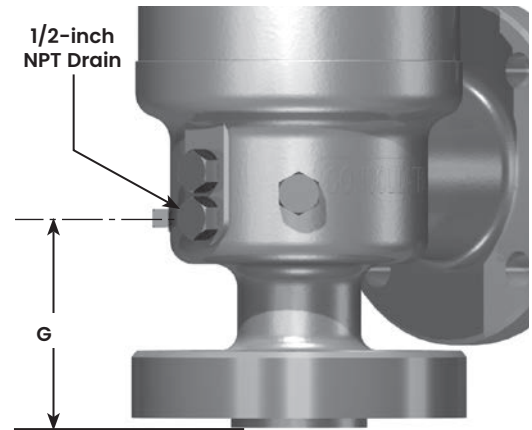
1. Aluminum Titanium Nitride Coated.

Dimensions and Weights

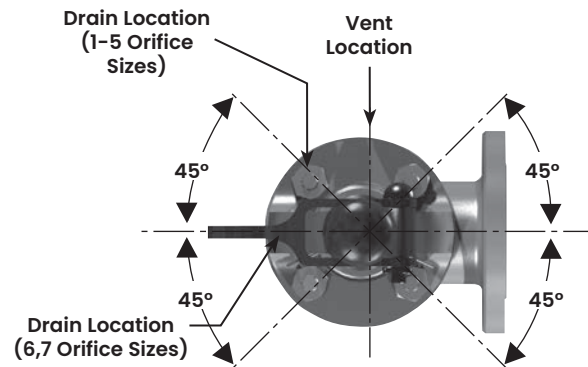
Flanged Inlet Dimensions



Valve General Dimensions



Vent and Drain Locations



Cap and lever may be rotated horizontally 45° to either side of outlet centerline.



CAUTION

Steam flow will occur through the cover plate vent when the valve is in the open position. Do not plug. Pipe to safe location. Refer to 2700 Series maintenance manual for instructions.

For lever clearance dimensions, see page 13.

Notes:

1. When using the EVT™-I or the Hydroset device, 15-inch (381 mm) clearance is required.
2. When using the EVT-II, 17-inch (432 mm) clearance is required. When using the assisted closing device, an additional 8-inch (203 mm) clearance is required.

Dimensions and Weights

600 Class Flanged Inlet Dimensions and Weights																				
Inlet Size		Valve Type	All Temperature Classes																Approx. Weight	
			A		B		C		D ^{(1) & (2)}		E		F		G		Vent NPT (See Caution)			
in.	mm		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb.	kg
1.50	38.1	2715	5.25	133.4	5.25	133.4	24.38	619.3	28.25	717.6	3.38	85.9	2.94	74.7	4.19	106.4	0.50	12.7	85	38.6
2.00	50.8	2725	5.25	133.4	5.50	139.7	27.25	692.2	31.13	790.7	3.38	85.9	3.81	96.8	4.19	106.4	0.50	12.7	113	51.3
2.50	63.5	2735	7.25	184.2	7.00	177.8	32.50	825.5	38.25	971.6	4.13	104.9	4.31	109.5	5.19	131.8	0.50	12.7	208	94.3
3.00	76.2	2755	7.38	187.5	7.50	190.5	39.88	1013.0	46.50	1181.1	5.25	133.4	5.06	128.5	4.81	122.2	0.75	19.1	336	152.4
3.00	76.2	2745	7.38	187.5	7.50	190.5	39.88	1013.0	46.50	1181.1	5.25	133.4	5.06	128.5	4.81	122.2	0.75	19.1	336	152.4
4.00	101.6	2765	7.88	200.2	9.00	228.6	44.50	1130.3	51.25	1301.8	6.50	165.1	5.75	146.1	5.31	134.9	1.00	25.4	441	200.0
6.00	152.4	2775Q	10.63	270.0	10.50	266.7	53.38	1355.9	61.13	1552.7	8.13	206.5	6.81	173.0	7.19	182.6	1.00	25.4	528	239.5

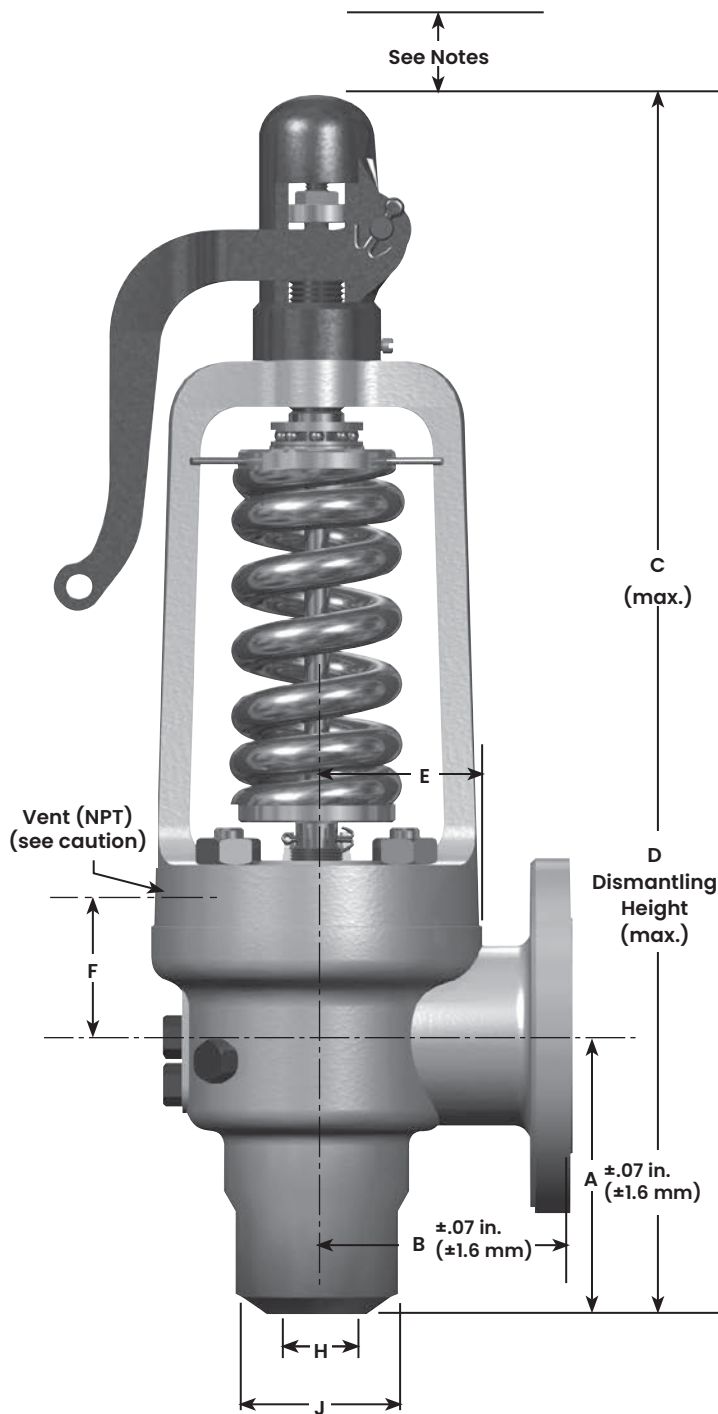
900 Class Flanged Inlet Dimensions and Weights																				
Inlet Size		Valve Type	All Temperature Classes																Approx. Weight	
			A		B		C		D ^{(1) & (2)}		E		F		G		Vent NPT (See Caution)			
in.	mm		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb.	kg
1.50	38.1	2716	5.50	139.7	5.25	133.4	24.63	625.6	28.50	723.9	3.38	85.9	2.94	74.7	4.44	112.8	0.50	12.7	87	39.5
2.00	50.8	2726	5.75	146.1	5.50	139.7	27.75	704.9	31.63	803.4	3.38	85.9	3.81	96.8	4.69	119.1	0.50	12.7	126	57.2
2.50	63.5	2736	7.75	196.9	7.00	177.8	33.00	838.2	38.75	984.3	4.13	104.9	4.31	109.5	5.69	144.5	0.50	12.7	225	102.1
3.00	76.2	2756	7.63	193.8	7.50	190.5	40.13	1019.3	46.75	1187.5	5.25	133.4	5.06	128.5	5.06	128.5	0.75	19.1	347	157.4
3.00	76.2	2746	7.63	193.8	7.50	190.5	40.13	1019.3	46.75	1187.5	5.25	133.4	5.06	128.5	5.06	128.5	0.75	19.1	347	157.4
4.00	101.6	2766	8.13	206.5	9.00	228.6	44.75	1136.7	51.50	1308.1	6.50	165.1	5.75	146.1	5.56	141.2	1.00	25.4	450	204.1
6.00	152.4	2776Q	11.00	279.4	10.50	266.7	53.75	1365.3	61.50	1562.1	8.13	206.5	6.81	173.0	7.56	192.0	1.00	25.4	576	261.3

1500 Class Flanged Inlet Dimensions and Weights																				
Inlet Size		Valve Type	All Temperature Classes																Approx. Weight	
			A		B		C		D ^{(1) & (2)}		E		F		G		Vent NPT (See Caution)			
in.	mm		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb.	kg
1.50	38.1	2717	5.50	139.7	5.25	133.4	24.63	625.5	28.50	723.9	3.38	85.7	2.94	74.6	4.44	112.7	0.50	12.7	87	39.5
2.00	50.8	2727	5.75	146.1	5.50	139.7	27.75	704.9	31.63	803.3	3.38	85.7	3.81	96.8	4.69	119.1	0.50	12.7	126	57.2
2.50	63.5	2737	7.75	196.9	7.00	177.8	33.00	838.2	38.75	984.3	4.13	104.8	4.31	109.5	5.69	144.5	0.50	12.7	225	102.1
3.00	76.2	2757	8.00	203.2	7.50	190.5	40.50	1028.7	47.13	1197.0	5.25	133.4	5.06	128.6	5.44	138.1	0.75	19.1	360	163.3
3.00	76.2	2747	8.00	203.2	7.50	190.5	40.50	1028.7	47.13	1197.0	5.25	133.4	5.06	128.6	5.44	138.1	0.75	19.1	360	163.3
4.00	101.6	2767	8.50	215.9	9.00	228.6	45.13	1146.2	51.88	1317.7	6.50	165.1	5.75	146.1	5.94	150.8	1.00	25.4	470	213.2
6.00	152.4	2777Q	12.00	304.8	10.50	266.7	54.75	1390.7	62.50	1587.5	8.13	206.4	6.81	173.0	8.56	217.5	1.00	25.4	631	286.2

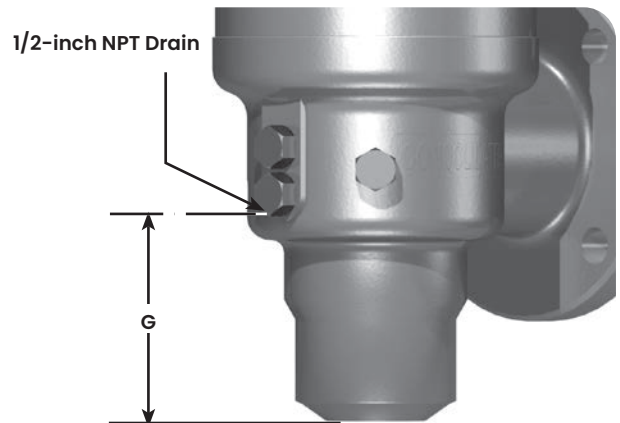
1. When using the EVT-I or the Hydroset device, an additional 15-inch (381 mm) clearance is required.
2. When using the EVT-II, an additional 17-inch (432 mm) clearance is required. When used with the assisted closing device an additional 25-inch (635 mm) clearance is required.

Dimensions and Weights

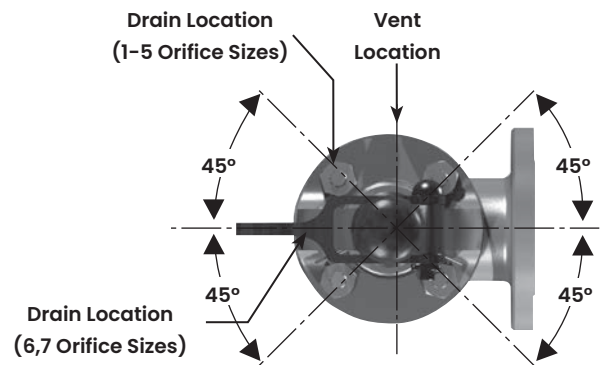
Buttweld Inlet Dimensions



Valve General Dimensions



Vent and Drain Locations



Cap and lever may be rotated horizontally 45° to either side of outlet center line.

CAUTION

Steam flow will occur through the cover plate vent when the valve is in the open position. Do not plug. Pipe to safe location. Refer to 2700 Series maintenance manual for instructions.

For lever clearance dimensions, see page 13.

Notes:

1. When using the EVT-I or the Hydroset device, 15-inch (381 mm) clearance is required.
2. When using the EVT-II, 17-inch (432 mm) clearance is required. When using the assisted closing device, an additional 8-inch (203 mm) clearance is required.

Dimensions and Weights

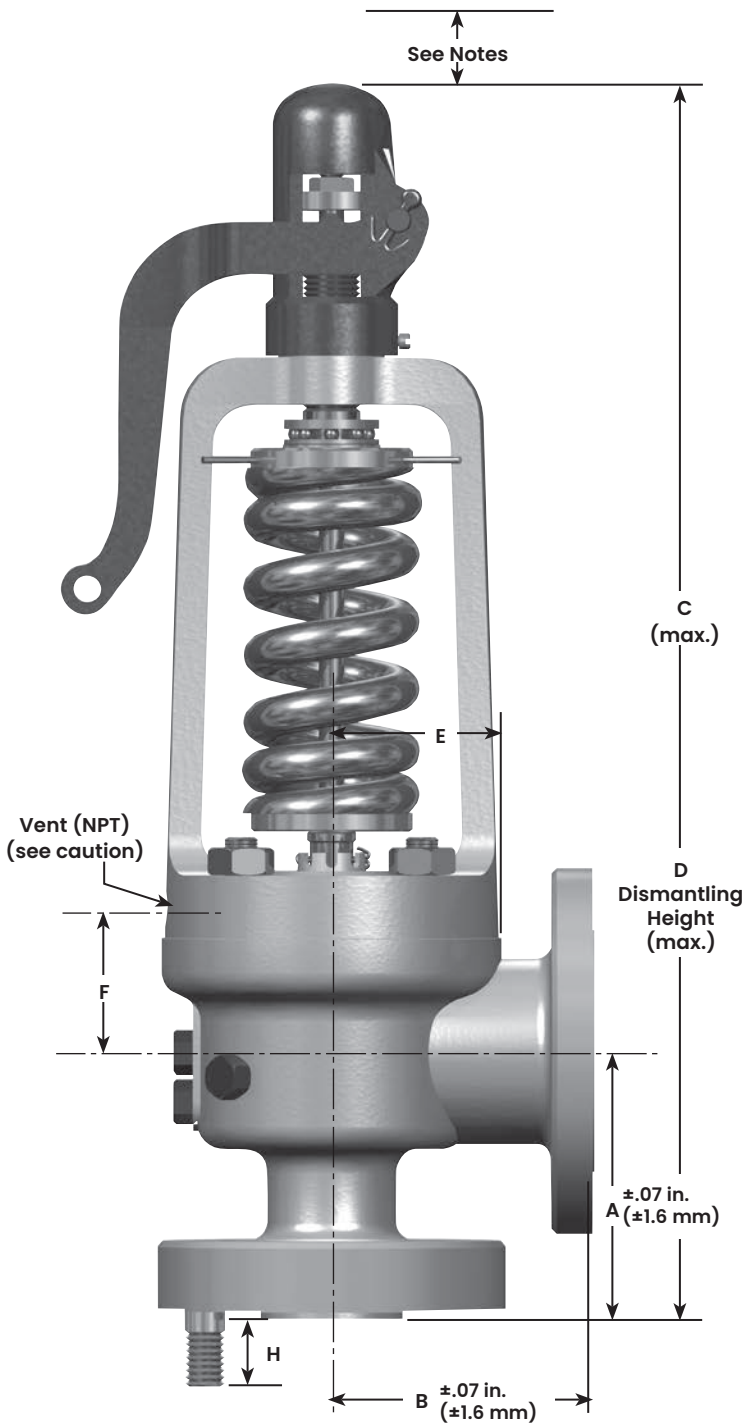
1500 Class Welded Inlet Dimensions and Weights														
Inlet Size		Valve Type	All Temperature Classes											
			A		B		C		D ⁽¹⁾ & (2)		E		F	
in.	mm		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
1.50	38.1	2717W	5.75	146.1	5.25	133.4	24.88	632.0	28.75	730.3	3.38	85.9	2.94	74.7
2.00	50.8	2737W	5.75	146.1	5.50	139.7	27.75	704.9	31.63	803.4	3.38	85.9	3.81	96.8
2.50	63.5	2737W	8.00	203.2	7.00	177.8	33.25	844.6	39.00	990.6	4.13	104.9	4.31	109.5
3.00	76.2	2757W	9.00	228.6	7.50	190.5	41.50	1054.1	48.13	1222.5	5.25	133.4	5.06	128.5
3.00	76.2	2747W	9.00	228.6	7.50	190.5	41.50	1054.1	48.13	1222.5	5.25	133.4	5.06	128.5
4.00	101.6	2767W	10.00	254.0	9.00	228.6	46.63	1184.4	53.38	1355.9	6.50	165.1	5.75	146.1
6.00	152.4	2777QW	12.00	304.8	10.50	266.7	54.75	1390.7	62.50	1587.5	8.13	206.5	6.81	173.0

1500 Class Welded Inlet Dimensions and Weights													
Inlet Size		Valve Type	All Temperature Classes								Approx. Weight		
			G		H		J		Vent NPT (See Caution)				
in.	mm		in.	mm	in.	mm	in.	mm	in.	mm	lb.	kg	
1.50	38.1	2717W	4.69	119.1	1.50	38.1	3.38	85.9	0.50	12.7	87	39.5	
2.00	50.8	2737W	4.69	119.1	2.00	50.8	4.00	101.6	0.50	12.7	126	57.2	
2.50	63.5	2737W	5.94	150.9	2.50	63.5	4.75	120.7	0.50	12.7	225	102.1	
3.00	76.2	2757W	6.44	163.6	3.00	76.2	5.38	136.7	0.75	19.1	347	157.4	
3.00	76.2	2747W	6.44	163.6	3.00	76.2	5.63	143.0	0.75	19.1	347	157.4	
4.00	101.6	2767W	7.44	189.0	4.00	101.6	7.00	177.8	1.00	25.4	450	204.1	
6.00	152.4	2777QW	8.56	217.4	6.00	152.4	8.50	215.9	1.00	25.4	576	261.3	

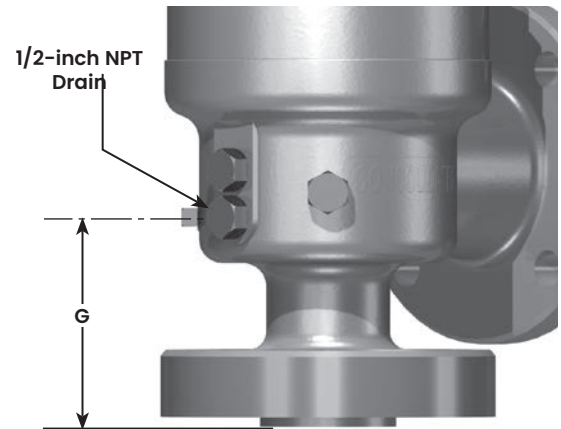
1. When using the EVT-I or the Hydroset device, an additional 15-inch (381 mm) clearance is required.
2. When using the EVT-II, an additional 17-inch (432 mm) clearance is required. When used with the assisted closing device an additional 25-inch (635 mm) clearance is required.

Dimensions and Weights

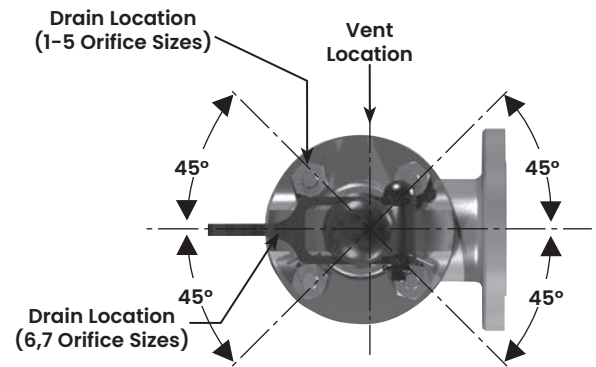
Alternate Studded Inlet Dimensions



Valve General Dimensions



Vent and Drain Locations



Cap and lever may be rotated horizontally 45° to either side of outlet center line.



CAUTION

Steam flow will occur through the cover plate vent when the valve is in the open position. Do not plug. Pipe to safe location. Refer to 2700 Series maintenance manual for instructions.

For lever clearance dimensions, see page 13.

Notes:

1. When using the EVT-I or the Hydrosset device, 15-inch (381 mm) clearance is required.
2. When using the EVT-II, 17-inch (432 mm) clearance is required. When using the assisted closing device, an additional 8-inch (203 mm) clearance is required.

Dimensions and Weights

600 Class Studded Inlet Dimensions and Weights

Inlet Size		Valve Type	All Temperature Classes																		Approx. Weight	
			A		B		C		D ^{(1) & (2)}		E		F		G		H		Vent NPT (See Caution)			
in.	mm		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb.	kg
1.25	31.8	2715	5.25	133.4	5.25	133.4	24.38	619.3	28.25	717.6	3.38	85.9	2.94	74.7	4.19	106.4	2.13	54.1	0.50	12.7	82	37.2
1.50	38.1	2725	5.25	133.4	5.50	139.7	27.25	692.2	31.13	790.7	3.38	85.9	3.81	96.8	4.19	106.4	2.50	63.5	0.50	12.7	108	49.0
2.00	50.8	2735	7.25	184.2	7.00	177.8	32.50	825.5	38.25	971.6	4.13	104.9	4.31	109.5	5.19	131.8	2.38	60.5	0.50	12.7	201	91.2
2.50	63.5	2755	7.38	187.5	7.50	190.5	39.88	1013.0	46.50	1181.1	5.25	133.4	5.06	128.5	4.81	122.2	2.50	63.5	0.50	12.7	348	157.9

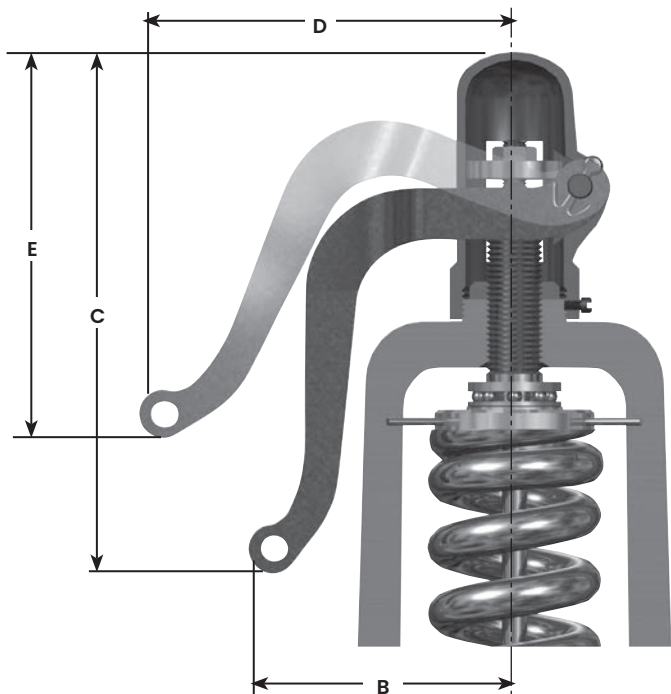
900 Class Studded Inlet Dimensions and Weights

Inlet Size		Valve Type	All Temperature Classes																		Approx. Weight	
			A		B		C		D ^{(1) & (2)}		E		F		G		H		Vent NPT (See Caution)			
in.	mm		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb.	kg
1.25	31.8	2716	5.50	139.7	5.25	133.4	24.63	625.6	28.50	723.9	3.38	85.9	2.94	74.7	4.44	112.8	2.75	69.9	0.50	12.7	87	39.5
1.50	38.1	2726	5.75	146.1	5.50	139.7	27.75	704.9	31.63	803.4	3.38	85.9	3.81	96.8	4.56	115.8	2.88	73.2	1.50	38.1	88	39.9
2.00	50.8	2736	7.75	196.9	7.00	177.8	33.00	838.2	38.75	984.3	4.13	104.9	4.31	109.5	5.69	144.5	3.13	79.5	0.50	12.7	126	57.2
2.50	63.5	2756	7.63	193.8	7.50	190.5	40.13	1019.3	46.75	1187.5	5.25	133.4	5.06	128.5	5.06	128.5	3.13	79.5	0.50	12.7	225	102.1

1. When using the EVT-I or the Hydroset device, an additional 15-inch (381 mm) clearance is required.
2. When using the EVT-II, an additional 17-inch (432 mm) clearance is required. When used with the assisted closing device an additional 25-inch (635 mm) clearance is required.

Dimensions and Weights

Lever Clearance Dimensions



600 Lever Clearance General Dimensions

Inlet Size		Type No.	All Temperature Classes							
			B		C		D		E	
in.	mm		in.	mm	in.	mm	in.	mm	in.	mm
1.50	38.1	2715	5.88	149.2	10.75	273.1	6.63	168.3	10.06	255.5
		2716								
		2717								
2.00	50.8	2725	5.88	149.2	10.75	273.1	6.63	168.3	10.06	255.5
		2726								
		2727								
2.50	63.5	2735	5.88	149.2	16.13	409.7	12.38	314.5	11.50	292.1
		2736								
		2737								
3.00	76.2	2755	8.31	211.1	23.75	603.3	14.56	369.8	20.00	508.0
		2756								
		2757								
3.00	76.2	2745	8.31	211.1	23.75	603.3	14.56	369.8	20.00	508.0
		2746								
		2747								
4.00	101.6	2765	8.31	211.1	23.75	603.3	14.56	369.8	20.00	508.0
		2766								
		2767								
6.00	152.4	2775Q	8.31	211.1	29.00	736.6	14.56	369.8	22.00	558.8
		2776Q								
		2777Q								

Pressure / Temperature

600 Pressure Class – Flanged Inlet Pressure/Temperature Limits															
Meets ASME Section I and ASME B16.34															
Temperature Class		B													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		100 to 300	37.8 to 148.9	400	204.4	500	260.0	600	315.6	650	343.3	700	371.1	750	398.9
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2715	150# 300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2725	150# 300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2735	150# 300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2755	150# 300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2745	150# 300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2765	150# 300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2775Q	150# 300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42

600 Pressure Class – Flanged Inlet Pressure/Temperature Limits															
Meets ASME Section I and ASME B16.34															
Temperature Class		D													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		800	426.7	850	454.4	900	482.2	950	510.0	1000	537.8	1020	548.9	1050	565.6
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2715	150# 300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2725	150# 300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2735	150# 300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2755	150# 300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2745	150# 300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2765	150# 300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2775Q	150# 300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99

Pressure / Temperature

900 Pressure Class – Flanged Inlet Pressure/Temperature Limits															
Meets ASME Section I and ASME B16.34															
Temperature Class		B													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		100 to 300	37.8 to 148.9	400	204.4	500	260.0	600	315.6	650	343.3	700	371.1	750	398.9
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2716	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1595	109.97
2726	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1595	109.97
2736	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1595	109.97
2756	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1595	109.97
2746	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1595	109.97
2766	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1595	109.97
2776Q	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1595	109.97

900 Pressure Class – Flanged Inlet Pressure/Temperature Limits															
Meets ASME Section I and ASME B16.34															
Temperature Class		D													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		800	426.7	850	454.4	900	482.2	950	510.0	1000	537.8	1020	548.9	1050	565.6
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2716	150# 300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2726	150# 300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2736	150# 300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2756	150# 300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2746	150# 300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2766	150# 300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2776Q	150# 300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64

Pressure / Temperature

1500 Pressure Class – Flanged Inlet Pressure/Temperature Limits															
Meets ASME Section I and ASME B16.34															
Temperature Class		B													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		100 to 300	37.8 to 148.9	400	204.4	500	260.0	600	315.6	650	343.3	700	371.1	750	398.9
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2717	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2727	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2737	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2757	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2747	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2767	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2777Q	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31

1500 Pressure Class – Flanged Inlet Pressure/Temperature Limits															
Meets ASME Section I and ASME B16.34															
Temperature Class		D													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		800	426.7	850	454.4	900	482.2	950	510.0	1000	537.8	1020	548.9	1050	565.6
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2717	150# 300#	1600	110.31	1600	110.31	1600	110.31	1595	109.97	1080	74.46	936	64.53	720	49.64
2727	150# 300#	1600	110.31	1600	110.31	1600	110.31	1595	109.97	1080	74.46	936	64.53	720	49.64
2737	150# 300#	1600	110.31	1600	110.31	1600	110.31	1595	109.97	1080	74.46	936	64.53	720	49.64
2757	150# 300#	1600	110.31	1600	110.31	1600	110.31	1595	109.97	1080	74.46	936	64.53	720	49.64
2747	150# 300#	1600	110.31	1600	110.31	1600	110.31	1595	109.97	1080	74.46	936	64.53	720	49.64
2767	150# 300#	1600	110.31	1600	110.31	1600	110.31	1595	109.97	1080	74.46	936	64.53	720	49.64
2777Q	150# 300#	1600	110.31	1600	110.31	1600	110.31	1595	109.97	1080	74.46	936	64.53	720	49.64

Pressure / Temperature

1500 Pressure Class – Buttweld Inlet Pressure/Temperature Limits															
Meets ASME Section I and ASME B16.34															
Temperature Class		B													
Base Material ⁽¹⁾		WCC													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		100 to 300	37.8 to 148.9	400	204.4	500	260.0	600	315.6	650	343.3	700	371.1	750	398.9
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2717	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2727	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2737	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2757	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2747	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2767	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2777Q	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31

1500 Pressure Class – Buttweld Inlet Pressure/Temperature Limits															
Meets ASME Section I and ASME B16.34															
Temperature Class		D													
Base Material ⁽¹⁾		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		800	426.7	850	454.4	900	482.2	950	510.0	1000	537.8	1020	548.9	1050	565.6
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2717	150# 300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2727	150#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1500	103.42
	300#													1550 ⁽²⁾	106.86 ⁽²⁾
2737	150#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1400	96.52
	300#													1550 ⁽²⁾	106.86 ⁽²⁾
2757	150#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1325	91.35
	300#													1550 ⁽²⁾	106.86 ⁽²⁾
2747	150#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1325	91.35
	300#													1550 ⁽²⁾	106.86 ⁽²⁾
2767	150#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1540	106.17	1175	81.01
	300#											1550 ⁽²⁾	106.86 ⁽²⁾	1550 ⁽²⁾	106.86 ⁽²⁾
2777Q	150#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1200	82.73	1040	71.70	800	55.15
	300#									1550 ⁽²⁾	106.86 ⁽²⁾	1550 ⁽²⁾	106.86 ⁽²⁾	1550 ⁽²⁾	106.86 ⁽²⁾

1. Consult the factory. Set pressure limits for buttweld valves can be further limited by buttweld dimensions.
2. Per ASME Code Case 1876-3.

Pressure / Temperature Alternate

600 Pressure Class - Flanged Inlet Connection Pressure/Temperature Ratings															
Meets ASME Section I, ASME B16.34 and Non-Mandatory Code ASME B31.1 - Appendix II ⁽¹⁾															
Temperature Class		B													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		100 to 300	37.8 to 148.9	400	204.4	500	260.0	600	315.6	650	343.3	700	371.1	750	398.9
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2715	150#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
	300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2725	150#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	863	59.50
	300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2735	150#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
	300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2755	150#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
	300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2745	150#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
	300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2765	150#	1020	70.32	1020	70.32	1020	70.32	1020	70.32	863	59.50	745	51.36	663	45.71
	300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42
2775Q	150#	1020	70.32	1020	70.32	1020	70.32	1020	70.32	863	59.50	745	51.36	663	45.71
	300#	1445	99.62	1385	95.49	1330	91.70	1210	83.42	1175	81.01	1135	78.25	1065	73.42

600 Pressure Class - Flanged Inlet Connection Pressure/Temperature Ratings															
Meets ASME Section I, ASME B16.34 and Non-Mandatory Code ASME B31.1 - Appendix II ⁽¹⁾															
Temperature Class		D													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		800	426.7	850	454.4	900	482.2	950	510.0	1000	537.8	1020	548.9	1050	565.6
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2715	150#	1015	69.98	975	67.22	812	55.98	637	43.91	430	29.64	374	25.78	275	18.96
	300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2725	150#	734	50.60	624	43.02	510	35.16	417	28.75	308	21.23	267	18.40	206	14.20
	300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2735	150#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	275	18.96
	300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2755	150#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	275	18.96
	300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2745	150#	1015	69.98	975	67.22	812	55.98	637	43.91	430	29.64	374	25.78	275	18.96
	300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2765	150#	576	39.71	490	33.78	409	28.19	321	22.13	242	16.68	210	14.47	161	11.10
	300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99
2775Q	150#	576	39.71	490	33.78	409	28.19	321	22.13	242	16.68	210	14.47	161	11.10
	300#	1015	69.98	975	67.22	900	62.05	640	44.12	430	29.64	374	25.78	290	19.99

1. ASME B31.1, Appendix II analysis is limited to calculating valve outlet pressure and temperature. This valve outlet pressure and temperature calculations comply with ASME B16.34. The valve inlet pressure/temperature rating is in compliance with ASME B16.34.

Pressure / Temperature Alternate

600 Pressure Class – Flanged Inlet Connection Pressure/Temperature Ratings															
Meets ASME Section I, ASME B16.34 and Non-Mandatory Code ASME B31.1 – Appendix II ⁽¹⁾															
Temperature Class		B													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		100 to 300	37.8 to 148.9	400	204.4	500	260.0	600	315.6	650	343.3	700	371.1	750	398.9
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2716	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1489	102.66
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2726	150#	1389	95.76	1389	95.76	1389	95.76	1389	95.76	1192	82.18	1035	71.36	863	59.50
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2736	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2756	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2746	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1459	100.59
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2766	150#	1020	70.32	1020	70.32	1020	70.32	1020	70.32	863	59.50	749	51.64	663	45.71
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2776Q	150#	1020	70.32	1020	70.32	1020	70.32	1020	70.32	863	59.50	749	51.64	663	45.71
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86

900 Pressure Class – Flanged Inlet Connection Pressure/Temperature Ratings															
Meets ASME Section I, ASME B16.34 and Non-Mandatory Code ASME B31.1 – Appendix II ⁽¹⁾															
Temperature Class		D													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		800	426.7	850	454.4	900	482.2	950	510.0	1000	537.8	1020	548.9	1050	565.6
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2716	150#	1241	85.56	1056	72.80	812	55.98	637	43.91	480	33.09	409	28.19	314	21.64
	300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2726	150#	734	50.60	624	43.02	510	35.16	417	28.75	308	21.23	267	18.40	206	14.20
	300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2736	150#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	410	28.26
	300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2756	150#	1525	105.14	1346	92.80	1077	74.25	796	54.88	588	40.54	510	35.16	392	27.02
	300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2746	150#	1241	85.56	1035	71.36	812	55.98	637	43.91	480	33.09	409	28.19	314	21.64
	300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2766	150#	576	39.71	490	33.78	409	28.19	321	22.13	242	16.68	210	14.47	161	11.10
	300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64
2776Q	150#	576	39.71	490	33.78	409	28.19	321	22.13	242	16.68	210	14.47	161	11.10
	300#	1525	105.14	1460	100.66	1350	93.07	955	65.84	650	44.81	562	38.74	430	29.64

1. ASME B31.1, Appendix II analysis is limited to calculating valve outlet pressure and temperature. The calculated outlet pressure and temperature, using ASME B31.1 Appendix II analysis, complies with ASME B16.34. The valve inlet pressure/temperature rating is in compliance with ASME B16.34.

Pressure / Temperature Alternate

1500 Pressure Class - Flanged Inlet Connection Pressure/Temperature Ratings															
Meets ASME Section I, ASME B16.34 and Non-Mandatory Code ASME B31.1 - Appendix II ⁽¹⁾															
Temperature Class		B													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		100 to 300	37.8 to 148.9	400	204.4	500	260.0	600	315.6	650	343.3	700	371.1	750	398.9
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2717	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1489	102.66
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2727	150#	1389	95.76	1389	95.76	1389	95.76	1389	95.76	1192	82.18	1035	71.36	863	59.50
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2737	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2757	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2747	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1459	100.59
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2767	150#	1020	70.32	1020	70.32	1020	70.32	1020	70.32	863	59.50	749	51.64	663	45.71
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2777Q	150#	1020	70.32	1020	70.32	1020	70.32	1020	70.32	863	59.50	749	51.64	663	45.71
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86

1500 Pressure Class - Flanged Inlet Connection Pressure/Temperature Ratings															
Meets ASME Section I, ASME B16.34 and Non-Mandatory Code ASME B31.1 - Appendix II ⁽¹⁾															
Temperature Class		D													
Base Material		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		800	426.7	850	454.4	900	482.2	950	510.0	1000	537.8	1020	548.9	1050	565.6
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2717	150#	1241	85.56	1056	72.80	812	55.98	637	43.91	480	33.09	409	28.19	314	21.64
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
2727	150#	734	50.60	624	43.02	510	35.16	417	28.75	308	21.23	267	18.40	206	14.20
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1080	74.46	936	64.53	720	49.64
2737	150#	1550	106.86	1550	106.86	1550	106.86	1216	83.84	829	57.15	600	41.36	553	38.12
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1080	74.46	936	64.53	720	49.64
2757	150#	1550	106.86	1346	92.80	1077	74.25	796	54.88	588	40.54	510	35.16	392	27.02
	300#	1550	106.86	1550	106.86	1550	106.86	1595	109.97	1080	74.46	936	64.53	720	49.64
2747	150#	1241	85.56	1035	71.36	812	55.98	637	43.91	480	33.09	409	28.19	314	21.64
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1080	74.46	936	64.53	720	49.64
2767	150#	576	39.71	490	33.78	409	28.19	321	22.13	242	16.68	210	14.47	161	11.10
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1080	74.46	936	64.53	720	49.64
2777Q	150#	576	39.71	490	33.78	409	28.19	321	22.13	242	16.68	210	14.47	161	11.10
	300#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1080	74.46	936	64.53	720	49.64

1. ASME B31.1, Appendix II analysis is limited to calculating valve outlet pressure and temperature. The outlet pressure and temperature calculations comply with ASME B16.34. The valve inlet pressure/temperature rating is in compliance with ASME B16.34.

Pressure / Temperature Alternate

1500 Pressure Class – Butt weld Inlet Connection Pressure/Temperature Ratings															
Meets ASME Section I, ASME B16.34 and ASME B31.1 Non-Mandatory Appendix II ⁽¹⁾															
Temperature Class		B													
Base Material ²		WCC													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		100 to 300	37.8 to 148.9	400	204.4	500	260.0	600	315.6	650	343.3	700	371.1	750	398.9
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2717	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1489	102.66
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2727	150#	1389	95.76	1389	95.76	1389	95.76	1389	95.76	1192	82.18	1035	71.36	863	59.50
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2737	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2757	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2747	150#	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1550	106.86	1459	100.59
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2767	150#	1020	70.32	1020	70.32	1020	70.32	1020	70.32	863	59.50	749	51.64	663	45.71
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31
2777Q	150#	1020	70.32	1020	70.32	1020	70.32	1020	70.32	863	59.50	749	51.64	663	45.71
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31

1500 Pressure Class – Butt weld Inlet Connection Pressure/Temperature Ratings															
Meets ASME Section I, ASME B16.34 and ASME B31.1 Non-Mandatory Appendix II ⁽¹⁾															
Temperature Class		D													
Base Material ²		WC6													
Temperature Limit		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
		800	426.7	850	454.4	900	482.2	950	510.0	1000	537.8	1020	548.9	1050	565.6
Valve Type	Outlet Rating	Set Pressure Limit													
		psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg
2717	150#	1241	85.56	1056	72.80	812	55.98	637	43.91	480	33.09	409	28.19	314	21.64
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1550	106.86
2727	150#	734	50.60	624	43.02	510	35.16	417	28.75	308	21.23	267	18.40	206	14.20
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1485	102.38
2737	150#	1550	106.86	1550	106.86	1550	106.86	1216	83.84	829	57.15	600	41.36	553	38.12
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1380	95.14
2757	150#	1550	106.86	1346	92.80	1077	74.25	796	54.88	588	40.54	510	35.16	392	27.02
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1305	89.97
2747	150#	1241	85.56	1035	71.36	812	55.98	637	43.91	480	33.09	409	28.19	314	21.64
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1305	89.97
2767	150#	576	39.71	490	33.78	409	28.19	321	22.13	242	16.68	210	14.47	161	11.10
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1150	79.28
2777Q	150#	576	39.71	490	33.78	409	28.19	321	22.13	242	16.68	210	14.47	161	11.10
	300#	1600	110.31	1600	110.31	1600	110.31	1600	110.31	1550	106.86	1550	106.86	760	52.40

- ASME B31.1, Appendix II analysis is limited to calculating valve outlet pressure and temperature. The outlet pressure and temperature calculations comply with ASME B16.34. The valve inlet pressure/temperature rating is in compliance with ASME B16.34.
- Consult the factory. Set pressure limits for butt weld valves can be further limited by butt weld dimensions.

Orifice Capacities

W = 51.5KAP for "P" ≤ 1520 psig (104.80 barg)

$$W = 51.5KAP \times \frac{.1906 \times P_{psia} - 1000}{.2292 \times P_{psia} - 1061} \quad \text{for "P" > 1520 psig (104.80 barg)}$$

K = .878, A = flow area in in².

P = (1.10 x set pressure) + 14.7

Apply the correction factor for capacities on superheated steam. Correction factor tables begin on page 36. Review pressure/temperature limits. Pressure/temperature tables begin on page 15. The 2700 is certified as a restricted lift valve and capacities can be restricted down to 30 percent of its full rated capacity.

Valve Capacity for ASME B and PV Code Section I, for Saturated Steam

The saturated steam table is based at 3 percent overpressure or 2 psig (0.14 barg), whichever is greater, showing 90 percent actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Orifice Area		0.994	6.413	1.431	9.232	2.545	16.419	3.341	21.555	3.976	25.652	7.070	45.613	12.250	79.032
Set Pressure		Orifice Capacity													
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
100	6.89	5290	2399	7615	3454	13544	6143	17780	8064	21160	9598	37626	17066	65195	29571
105	7.23	5521	2504	7949	3605	14137	6412	18558	8417	22086	10018	39273	17813	68047	30865
110	7.58	5753	2609	8282	3756	14729	6680	19336	8770	23012	10438	40919	18560	70900	32159
115	7.92	5984	2714	8615	3907	15322	6949	20114	9123	23938	10858	42565	19307	73752	33453
120	8.27	6215	2819	8948	4058	15915	7218	20892	9476	24863	11277	44212	20054	76605	34747
125	8.61	6447	2924	9282	4210	16507	7487	21670	9829	25789	11697	45858	20800	79458	36041
130	8.96	6678	3029	9615	4361	17100	7756	22449	10182	26715	12117	47505	21547	82310	37335
135	9.30	6910	3134	9948	4512	17693	8025	23227	10535	27641	12537	49151	22294	85163	38629
140	9.65	7141	3239	10281	4663	18285	8293	24005	10888	28567	12957	50797	23041	88016	39923
145	9.99	7373	3344	10614	4814	18878	8562	24783	11241	29493	13377	52444	23788	90868	41217
150	10.34	7604	3449	10948	4965	19471	8831	25561	11594	30419	13797	54090	24534	93721	42511
155	10.68	7836	3554	11281	5116	20063	9100	26339	11947	31345	14217	55736	25281	96573	43804
160	11.03	8067	3659	11614	5268	20656	9369	27117	12300	32271	14637	57383	26028	99426	45098
165	11.37	8299	3764	11947	5419	21249	9638	27895	12652	33196	15057	59029	26775	102279	46392
170	11.72	8530	3869	12281	5570	21841	9906	28673	13005	34122	15477	60676	27522	105131	47686
175	12.06	8762	3974	12614	5721	22434	10175	29451	13358	35048	15897	62322	28268	107984	48980
180	12.41	8993	4079	12947	5872	23026	10444	30229	13711	35974	16317	63968	29015	110837	50274
185	12.75	9225	4184	13280	6023	23619	10713	31007	14064	36900	16737	65615	29762	113689	51568
190	13.10	9456	4289	13614	6175	24212	10982	31785	14417	37826	17157	67261	30509	116542	52862
195	13.44	9688	4394	13947	6326	24804	11250	32563	14770	38752	17577	68907	31255	119394	54156
200	13.78	9919	4499	14280	6477	25397	11519	33341	15123	39678	17997	70554	32002	122247	55450
205	14.13	10150	4603	14613	6628	25990	11788	34119	15476	40603	18417	72200	32749	125100	56744
210	14.47	10382	4709	14946	6779	26582	12057	34897	15829	41529	18837	73847	33496	127952	58038
215	14.82	10613	4813	15280	6930	27175	12326	35675	16181	42455	19257	75493	34243	130805	59332
220	15.16	10845	4919	15613	7081	27768	12595	36453	16534	43381	19677	77139	34989	133658	60626
225	15.51	11076	5023	15946	7232	28360	12863	37231	16887	44307	20097	78786	35736	136510	61919
230	15.85	11308	5129	16279	7384	28953	13132	38009	17240	45233	20517	80432	36483	139363	63213
235	16.20	11539	5234	16613	7535	29546	13401	38787	17593	46159	20937	82078	37229	142215	64507
240	16.54	11771	5339	16946	7686	30138	13670	39565	17946	47085	21357	83725	37977	145068	65801
245	16.89	12002	5444	17279	7837	30731	13939	40343	18299	48010	21776	85371	38723	147921	67095
250	17.23	12234	5549	17612	7988	31324	14208	41121	18652	48936	22196	87018	39470	150773	68389
255	17.58	12465	5654	17946	8140	31916	14476	41899	19005	49862	22617	88664	40217	153626	69683
260	17.92	12697	5759	18279	8291	32509	14745	42677	19357	50788	23037	90310	40963	156479	70977
265	18.27	12928	5864	18612	8442	33101	15014	43455	19710	51714	23457	91957	41710	159331	72271
270	18.61	13160	5969	18945	8593	33694	15283	44233	20063	52640	23877	93603	42457	162184	73565
275	18.96	13391	6074	19279	8744	34287	15552	45011	20416	53566	24297	95249	43204	165036	74859
280	19.30	13623	6179	19612	8895	34879	15820	45789	20769	54492	24717	96896	43951	167889	76153
285	19.65	13854	6284	19945	9046	35472	16089	46567	21122	55418	25137	98542	44697	170742	77447
290	19.99	14085	6388	20278	9197	36065	16358	47345	21475	56343	25556	100189	45444	173594	78740
295	20.33	14317	6494	20611	9348	36657	16627	48123	21828	57269	25976	101835	46191	176447	80035
300	20.68	14548	6598	20945	9500	37250	16896	48901	22181	58195	26396	103481	46938	179300	81329
305	21.02	14780	6704	21278	9651	37843	17165	49679	22534	59121	26816	105128	47685	182152	82622
310	21.37	15011	6808	21611	9802	38435	17433	50457	22886	60047	27236	106774	48431	185005	83916
315	21.71	15243	6914	21944	9953	39028	17702	51235	23239	60973	27656	108420	49178	187857	85210
320	22.06	15474	7018	22278	10105	39621	17971	52013	23592	61899	28076	110067	49925	190710	86504
325	22.40	15706	7124	22611	10256	40213	18240	52791	23945	62825	28496	111713	50672	193563	87798
330	22.75	15937	7228	22944	10407	40806	18509	53569	24298	63750	28916	113360	51419	196415	89092
335	23.09	16169	7334	23277	10558	41399	18778	54347	24651	64676	29336	115006	52165	199268	90386
340	23.44	16400	7438	23611	10709	41991	19046	55125	25004	65602	29756	116652	52912	202121	91680

Orifice Capacities

Valve Capacity for ASME B and PV Code Section I, for Saturated Steam

The saturated steam table is based at 3 percent overpressure or 2 psig (0.14 barg), whichever is greater, showing 90 percent actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		0.994	6.413	1.431	9.232	2.545	16.419	3.341	21.555	3.976	25.652	7.070	45.613	12.250	79.032
Set Pressure		Orifice Capacity													
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
345	23.78	16632	7544	23944	10860	42584	19315	55903	25357	66528	30176	118299	53659	204973	92974
350	24.13	16863	7648	24277	11011	43176	19584	56681	25710	67454	30596	119945	54406	207826	94268
355	24.47	17095	7754	24610	11162	43769	19853	57459	26062	68380	31016	121591	55152	210679	95562
360	24.82	17326	7858	24943	11313	44362	20122	58237	26415	69306	31436	123238	55899	213531	96856
365	25.16	17558	7964	25277	11465	44954	20390	59015	26768	70232	31856	124884	56646	216384	98150
370	25.51	17789	8068	25610	11616	45547	20659	59793	27121	71158	32276	126531	57393	219236	99443
375	25.85	18020	8173	25943	11767	46140	20928	60571	27474	72083	32696	128177	58140	222089	100737
380	26.20	18252	8278	26276	11918	46732	21197	61349	27827	73009	33116	129823	58886	224942	102031
385	26.54	18483	8383	26610	12070	47325	21466	62127	28180	73935	33536	131470	59633	227794	103325
390	26.88	18715	8488	26943	12221	47918	21735	62905	28533	74861	33956	133116	60380	230647	104619
395	27.23	18946	8593	27276	12372	48510	22003	63683	28886	75787	34376	134762	61127	233500	105913
400	27.57	19178	8698	27609	12523	49103	22272	64461	29239	76713	34796	136409	61874	236352	107207
405	27.92	19409	8803	27943	12674	49696	22541	65239	29591	77639	35216	138055	62620	239205	108501
410	28.26	19641	8909	28276	12825	50288	22810	66017	29944	78565	35636	139701	63367	242057	109795
415	28.61	19872	9013	28609	12976	50881	23079	66795	30297	79490	36056	141348	64114	244910	111089
420	28.95	20104	9119	28942	13127	51474	23348	67573	30650	80416	36476	142994	64860	247763	112383
425	29.30	20335	9223	29276	13279	52066	23616	68351	31003	81342	36896	144641	65608	250615	113677
430	29.64	20567	9329	29609	13430	52659	23885	69129	31356	82268	37316	146287	66354	253468	114971
435	29.99	20798	9433	29942	13581	53252	24154	69907	31709	83194	37736	147933	67101	256321	116265
440	30.33	21030	9539	30275	13732	53844	24423	70685	32062	84120	38156	149580	67848	259173	117558
445	30.68	21261	9643	30608	13883	54437	24692	71463	32415	85046	38576	151226	68594	262026	118853
450	31.02	21493	9749	30942	14035	55029	24960	72241	32767	85972	38996	152872	69341	264878	120146
455	31.37	21724	9853	31275	14186	55622	25229	73019	33120	86898	39416	154519	70088	267731	121440
460	31.71	21955	9958	31608	14337	56215	25498	73797	33473	87823	39835	156165	70835	270584	122734
465	32.06	22187	10063	31941	14488	56807	25767	74575	33826	88749	40255	157812	71582	273436	124028
470	32.40	22418	10168	32275	14639	57400	26036	75353	34179	89675	40675	159458	72328	276289	125322
475	32.75	22650	10273	32608	14790	57993	26305	76131	34532	90601	41095	161104	73075	279142	126616
480	33.09	22881	10378	32941	14941	58585	26573	76909	34885	91527	41515	162751	73822	281994	127910
485	33.43	23113	10483	33274	15092	59178	26842	77687	35238	92453	41935	164397	74569	284847	129204
490	33.78	23344	10588	33608	15244	59771	27111	78465	35591	93379	42356	166043	75315	287699	130498
495	34.12	23576	10693	33941	15395	60363	27380	79243	35944	94305	42776	167690	76062	290552	131792
500	34.47	23807	10798	34274	15546	60956	27649	80021	36296	95230	43195	169336	76809	293405	133086
505	34.81	24039	10903	34607	15697	61549	27918	80799	36649	96156	43615	170983	77556	296257	134379
510	35.16	24270	11008	34940	15848	62141	28186	81577	37002	97082	44035	172629	78303	299110	135674
515	35.50	24502	11113	35274	16000	62734	28455	82355	37355	98008	44455	174275	79049	301963	136968
520	35.85	24733	11218	35607	16151	63327	28724	83133	37708	98934	44875	175922	79796	304815	138261
525	36.19	24965	11323	35940	16302	63919	28993	83911	38061	99860	45295	177568	80543	307668	139555
530	36.54	25196	11428	36273	16453	64512	29262	84689	38414	100786	45715	179214	81290	310520	140849
535	36.88	25428	11533	36607	16604	65104	29530	85467	38767	101712	46135	180861	82037	313373	142143
540	37.23	25659	11638	36940	16755	65697	29799	86245	39120	102637	46555	182507	82783	316226	143437
545	37.57	25890	11743	37273	16906	66290	30068	87023	39472	103563	46975	184154	83530	319078	144731
550	37.92	26122	11848	37606	17057	66882	30337	87801	39825	104489	47395	185800	84277	321931	146025
555	38.26	26353	11953	37940	17209	67475	30606	88579	40178	105415	47815	187446	85024	324784	147319
560	38.61	26585	12058	38273	17360	68068	30875	89357	40531	106341	48235	189093	85771	327636	148613
565	38.95	26816	12163	38606	17511	68660	31143	90135	40884	107267	48655	190739	86517	330489	149907
570	39.30	27048	12268	38939	17662	69253	31412	90913	41237	108193	49075	192385	87264	333341	151200
575	39.64	27279	12373	39273	17813	69846	31681	91691	41590	109119	49495	194032	88011	336194	152495
580	39.98	27511	12478	39606	17964	70438	31950	92469	41943	110045	49915	195678	88758	339047	153789
585	40.33	27742	12583	39939	18116	71031	32219	93247	42296	110970	50335	197325	89505	341899	155082
590	40.67	27974	12688	40272	18267	71624	32488	94025	42649	111896	50755	198971	90251	344752	156376

Orifice Capacities

Valve Capacity for ASME B and PV Code Section I, for Saturated Steam

The saturated steam table is based at 3 percent overpressure or 2 psig (0.14 barg), whichever is greater, showing 90 percent actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		0.994	6.413	1.431	9.232	2.545	16.419	3.341	21.555	3.976	25.652	7.070	45.613	12.250	79.032
Orifice Capacity															
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
595	41.02	28205	12793	40605	18418	72216	32756	94803	43001	112822	51175	200617	90998	347605	157670
600	41.36	28437	12898	40939	18569	72809	33025	95581	43354	113748	51595	202264	91745	350457	158964
605	41.71	28668	13003	41272	18720	73402	33294	96359	43707	114674	52015	203910	92492	353310	160258
610	42.05	28900	13108	41605	18871	73994	33563	97138	44061	115600	52435	205556	93238	356163	161552
615	42.40	29131	13213	41938	19022	74587	33832	97916	44413	116526	52855	207203	93985	359015	162846
620	42.74	29363	13318	42272	19174	75179	34100	98694	44766	117452	53275	208849	94732	361868	164140
625	43.09	29594	13423	42605	19325	75772	34369	99472	45119	118377	53694	210496	95479	364720	165434
630	43.43	29825	13528	42938	19476	76365	34638	100250	45472	119303	54114	212142	96225	367573	166728
635	43.78	30057	13633	43271	19627	76957	34907	101028	45825	120229	54534	213788	96972	370426	168022
640	44.12	30288	13738	43605	19778	77550	35176	101806	46178	121155	54954	215435	97719	373278	169316
645	44.47	30520	13843	43938	19929	78143	35445	102584	46531	122081	55375	217081	98466	376131	170610
650	44.81	30751	13948	44271	20080	78735	35713	103362	46884	123007	55795	218727	99212	378984	171904
655	45.16	30983	14053	44604	20232	79328	35982	104140	47237	123933	56215	220374	99959	381836	173197
660	45.50	31214	14158	44937	20383	79921	36251	104918	47590	124859	56635	222020	100706	384689	174492
665	45.85	31446	14263	45271	20534	80513	36520	105696	47942	125785	57055	223667	101453	387541	175785
670	46.19	31677	14368	45604	20685	81106	36789	106474	48295	126710	57474	225313	102200	390394	177079
675	46.53	31909	14473	45937	20836	81699	37058	107252	48648	127636	57894	226959	102946	393247	178373
680	46.88	32140	14578	46270	20987	82291	37326	108030	49001	128562	58314	228606	103693	396099	179667
685	47.22	32372	14683	46604	21139	82884	37595	108808	49354	129488	58734	230252	104440	398952	180961
690	47.57	32603	14788	46937	21290	83477	37864	109586	49707	130414	59154	231898	105187	401805	182255
695	47.91	32835	14893	47270	21441	84069	38133	110364	50060	131340	59574	233545	105934	404657	183549
700	48.26	33066	14998	47603	21592	84662	38402	111142	50413	132266	59994	235191	106680	407510	184843
705	48.60	33298	15103	47937	21743	85254	38670	111920	50766	133192	60414	236838	107427	410362	186137
710	48.95	33529	15208	48270	21894	85847	38939	112698	51118	134117	60834	238484	108174	413215	187431
715	49.29	33760	15313	48603	22045	86440	39208	113476	51471	135043	61254	240130	108921	416068	188725
720	49.64	33992	15418	48936	22196	87032	39477	114254	51824	135969	61674	241777	109668	418920	190018
725	49.98	34223	15523	49270	22348	87625	39746	115032	52177	136895	62094	243423	110414	421773	191313
730	50.33	34455	15628	49603	22499	88218	40015	115810	52530	137821	62514	245069	111161	424626	192607
735	50.67	34686	15733	49936	22650	88810	40283	116588	52883	138747	62934	246716	111908	427478	193900
740	51.02	34918	15838	50269	22801	89403	40552	117366	53236	139673	63354	248362	112655	430331	195194
745	51.36	35149	15943	50602	22952	89996	40821	118144	53589	140599	63774	250009	113402	433183	196488
750	51.71	35381	16048	50936	23104	90588	41090	118922	53942	141525	64194	251655	114148	436036	197782
755	52.05	35612	16153	51269	23255	91181	41359	119700	54295	142450	64614	253301	114895	438889	199076
760	52.40	35844	16258	51602	23406	91774	41627	120478	54647	143376	65034	254948	115642	441741	200370
765	52.74	36075	16363	51935	23557	92366	41896	121256	55000	144302	65454	256594	116389	444594	201664
770	53.08	36307	16468	52269	23708	92959	42165	122034	55353	145228	65874	258240	117135	447447	202958
775	53.43	36538	16573	52602	23859	93552	42434	122812	55706	146154	66294	259887	117882	450299	204252
780	53.77	36770	16678	52935	24010	94144	42703	123590	56059	147080	66714	261533	118629	453152	205546
785	54.12	37001	16783	53268	24161	94737	42971	124368	56412	148006	67134	263180	119376	456004	206839
790	54.46	37233	16888	53602	24313	95330	43240	125146	56765	148932	67554	264826	120123	458857	208134
795	54.81	37464	16993	53935	24464	95922	43509	125924	57118	149857	67973	266472	120869	461710	209428
800	55.15	37695	17098	54268	24615	96515	43778	126702	57471	150783	68394	268119	121616	464562	210721
805	55.50	37927	17203	54601	24766	97107	44046	127480	57823	151709	68814	269765	122363	467415	212015
810	55.84	38158	17308	54934	24917	97700	44315	128258	58176	152635	69234	271411	123109	470268	213309
815	56.19	38390	17413	55268	25069	98293	44584	129036	58529	153561	69654	273058	123857	473120	214603
820	56.53	38621	17518	55601	25220	98885	44853	129814	58882	154487	70074	274704	124603	475973	215897
825	56.88	38853	17623	55934	25371	99478	45122	130592	59235	155413	70494	276350	125350	478825	217191
830	57.22	39084	17728	56267	25522	100071	45391	131370	59588	156339	70914	277997	126097	481678	218485
835	57.57	39316	17833	56601	25673	100663	45659	132148	59941	157264	71333	279643	126843	484531	219779
840	57.91	39547	17938	56934	25824	101256	45928	132926	60294	158190	71753	281290	127591	487383	221073

Orifice Capacities

Valve Capacity for ASME B and PV Code Section I, for Saturated Steam

The saturated steam table is based at 3 percent overpressure or 2 psig (0.14 barg), whichever is greater, showing 90 percent actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		0.994	6.413	1.431	9.232	2.545	16.419	3.341	21.555	3.976	25.652	7.070	45.613	12.250	79.032
Orifice Capacity															
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
845	58.26	39779	18043	57267	25975	101849	46197	133704	60647	159116	72173	282936	128337	490236	222367
850	58.60	40010	18148	57600	26126	102441	46466	134482	61000	160042	72593	284582	129084	493089	223661
855	58.95	40242	18253	57934	26278	103034	46735	135260	61352	160968	73013	286229	129831	495941	224955
860	59.29	40473	18358	58267	26429	103627	47004	136038	61705	161894	73433	287875	130577	498794	226249
865	59.63	40705	18463	58600	26580	104219	47272	136816	62058	162820	73853	289521	131324	501647	227543
870	59.98	40936	18568	58933	26731	104812	47541	137594	62411	163746	74273	291168	132071	504499	228836
875	60.32	41168	18673	59267	26883	105405	47810	138372	62764	164672	74693	292814	132818	507352	230131
880	60.67	41399	18778	59600	27034	105997	48079	139150	63117	165597	75113	294461	133565	510204	231424
885	61.01	41630	18883	59933	27185	106590	48348	139928	63470	166523	75533	296107	134311	513057	232718
890	61.36	41862	18988	60266	27336	107182	48616	140706	63823	167449	75953	297753	135058	515910	234012
895	61.70	42093	19093	60599	27487	107775	48885	141484	64176	168375	76373	299400	135805	518762	235306
900	62.05	42325	19198	60933	27638	108368	49154	142262	64528	169301	76793	301046	136552	521615	236600
905	62.39	42556	19303	61266	27789	108960	49423	143040	64881	170227	77213	302692	137298	524468	237894
910	62.74	42788	19408	61599	27940	109553	49692	143818	65234	171153	77633	304339	138045	527320	239188
915	63.08	43019	19513	61932	28091	110146	49961	144596	65587	172079	78053	305985	138792	530173	240482
920	63.43	43251	19618	62266	28243	110738	50229	145374	65940	173004	78473	307632	139539	533025	241776
925	63.77	43482	19723	62599	28394	111331	50498	146152	66293	173930	78893	309278	140286	535878	243070
930	64.12	43714	19828	62932	28545	111924	50767	146930	66646	174856	79313	310924	141032	538731	244364
935	64.46	43945	19933	63265	28696	112516	51036	147708	66999	175782	79733	312571	141779	541583	245657
940	64.81	44177	20038	63599	28848	113109	51305	148486	67352	176708	80153	314217	142526	544436	246952
945	65.15	44408	20143	63932	28999	113702	51574	149264	67705	177634	80573	315863	143273	547289	248246
950	65.50	44640	20248	64265	29150	114294	51842	150042	68057	178560	80993	317510	144020	550141	249539
955	65.84	44871	20353	64598	29301	114887	52111	150820	68410	179486	81413	319156	144766	552994	250833
960	66.18	45103	20458	64931	29452	115480	52380	151598	68763	180412	81833	320803	145513	555846	252127
965	66.53	45334	20563	65265	29603	116072	52649	152376	69116	181337	82253	322449	146260	558699	253421
970	66.87	45565	20667	65598	29754	116665	52918	153154	69469	182263	82673	324095	147007	561552	254715
975	67.22	45797	20773	65931	29905	117257	53186	153932	69822	183189	83093	325742	147754	564404	256009
980	67.56	46028	20877	66264	30056	117850	53455	154710	70175	184115	83513	327388	148500	567257	257303
985	67.91	46260	20983	66598	30208	118443	53724	155488	70528	185041	83933	329034	149247	570110	258597
990	68.25	46491	21087	66931	30359	119035	53993	156266	70881	185967	84353	330681	149994	572962	259891
995	68.60	46723	21193	67264	30510	119628	54262	157044	71233	186893	84773	332327	150741	575815	261185
1000	68.94	46954	21297	67597	30661	120221	54531	157822	71586	187819	85193	333974	151488	578667	262478
1005	69.29	47186	21403	67931	30812	120813	54799	158600	71939	188744	85612	335620	152234	581520	263773
1010	69.63	47417	21507	68264	30964	121406	55068	159378	72292	189670	86032	337266	152981	584373	265067
1015	69.98	47649	21613	68597	31115	121999	55337	160156	72645	190596	86452	338913	153728	587225	266360
1020	70.32	47880	21718	68930	31266	122591	55606	160934	72998	191522	86872	340559	154474	590078	267654
1025	70.67	48112	21823	69264	31417	123184	55875	161712	73351	192448	87292	342205	155221	592931	268948
1030	71.01	48343	21928	69597	31568	123777	56144	162490	73704	193374	87712	343852	155968	595783	270242
1035	71.36	48575	22033	69930	31719	124369	56412	163268	74057	194300	88133	345498	156715	598636	271536
1040	71.70	48806	22138	70263	31870	124962	56681	164046	74410	195226	88553	347145	157462	601488	272830
1045	72.05	49038	22243	70596	32021	125555	56950	164824	74762	196152	88973	348791	158208	604341	274124
1050	72.39	49269	22348	70930	32173	126147	57219	165602	75115	197077	89392	350437	158955	607194	275418
1055	72.73	49500	22452	71263	32324	126740	57488	166380	75468	198003	89812	352084	159702	610046	276712
1060	73.08	49732	22558	71596	32475	127332	57756	167158	75821	198929	90232	353730	160449	612899	278006
1065	73.42	49963	22662	71929	32626	127925	58025	167936	76174	199855	90652	355376	161195	615752	279300
1070	73.77	50195	22768	72263	32777	128518	58294	168714	76527	200781	91072	357023	161942	618604	280594
1075	74.11	50426	22872	72596	32928	129110	58563	169492	76880	201707	91492	358669	162689	621457	281888
1080	74.46	50658	22978	72929	33080	129703	58832	170270	77233	202633	91912	360316	163436	624309	283181
1085	74.80	50889	23082	73262	33231	130296	59101	171049	77586	203559	92332	361962	164183	627162	284475
1090	75.15	51121	23188	73596	33382	130888	59369	171827	77939	204484	92752	363608	164929	630015	285770

Orifice Capacities

Valve Capacity for ASME B and PV Code Section I, for Saturated Steam

The saturated steam table is based at 3 percent overpressure or 2 psig (0.14 barg), whichever is greater, showing 90 percent actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		Orifice Capacity													
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
1095	75.49	51352	23292	73929	33533	131481	59638	172605	78292	205410	93172	365255	165676	632867	287063
1100	75.84	51584	23398	74262	33684	132074	59907	173383	78645	206336	93592	366901	166423	635720	288357
1105	76.18	51815	23502	74595	33835	132666	60176	174161	78998	207262	94012	368547	167170	638573	289651
1110	76.53	52047	23608	74929	33987	133259	60445	174939	79351	208188	94432	370194	167917	641425	290945
1115	76.87	52278	23712	75262	34138	133852	60714	175717	79703	209114	94852	371840	168663	644278	292239
1120	77.22	52510	23818	75595	34289	134444	60982	176495	80056	210040	95272	373487	169410	647131	293533
1125	77.56	52741	23922	75928	34440	135037	61251	177273	80409	210966	95692	375133	170157	649983	294827
1130	77.91	52972	24027	76261	34591	135630	61520	178051	80762	211891	96112	376779	170904	652836	296121
1135	78.25	53204	24132	76595	34742	136222	61789	178829	81115	212817	96532	378426	171651	655688	297415
1140	78.60	53435	24237	76928	34893	136815	62058	179607	81468	213743	96952	380072	172397	658541	298709
1145	78.94	53667	24342	77261	35045	137408	62327	180385	81821	214669	97372	381718	173144	661394	300003
1150	79.28	53898	24447	77594	35196	138000	62595	181163	82174	215595	97792	383365	173891	664246	301296
1155	79.63	54130	24552	77928	35347	138593	62864	181941	82527	216521	98212	385011	174638	667099	302591
1160	79.97	54361	24657	78261	35498	139185	63133	182719	82879	217447	98632	386658	175385	669952	303885
1165	80.32	54593	24762	78594	35649	139778	63402	183497	83232	218373	99052	388304	176131	672804	305178
1170	80.66	54824	24867	78927	35800	140371	63671	184275	83585	219299	99472	389950	176878	675657	306472
1175	81.01	55056	24972	79261	35952	140963	63939	185053	83938	220224	99891	391597	177625	678509	307766
1180	81.35	55287	25077	79594	36103	141556	64208	185831	84291	221150	100311	393243	178372	681362	309060
1185	81.70	55519	25182	79927	36254	142149	64477	186609	84644	222076	100731	394889	179118	684215	310354
1190	82.04	55750	25287	80260	36405	142741	64746	187387	84997	223002	101152	396536	179865	687067	311648
1195	82.39	55982	25393	80593	36556	143334	65015	188165	85350	223928	101572	398182	180612	689920	312942
1200	82.73	56213	25497	80927	36707	143927	65284	188943	85703	224854	101992	399829	181359	692773	314236
1205	83.08	56445	25603	81260	36858	144519	65552	189721	86056	225780	102412	401475	182106	695625	315530
1210	83.42	56676	25707	81593	37009	145112	65821	190499	86408	226706	102832	403121	182852	698478	316824
1215	83.77	56907	25812	81926	37161	145705	66090	191277	86761	227631	103251	404768	183599	701330	318117
1220	84.11	57139	25917	82260	37312	146297	66359	192055	87114	228557	103671	406414	184346	704183	319412
1225	84.46	57370	26022	82593	37463	146890	66628	192833	87467	229483	104091	408060	185092	707036	320706
1230	84.80	57602	26127	82926	37614	147483	66897	193611	87820	230409	104511	409707	185839	709888	321999
1235	85.15	57833	26232	83259	37765	148075	67165	194389	88173	231335	104931	411353	186586	712741	323293
1240	85.49	58065	26337	83593	37917	148668	67434	195167	88526	232261	105351	413000	187333	715594	324587
1245	85.83	58296	26442	83926	38068	149260	67703	195945	88879	233187	105771	414646	188080	718446	325881
1250	86.18	58528	26547	84259	38219	149853	67972	196723	89232	234113	106191	416292	188826	721299	327175
1255	86.52	58759	26652	84592	38370	150446	68241	197501	89584	235039	106611	417939	189573	724151	328469
1260	86.87	58991	26757	84926	38521	151038	68509	198279	89937	235964	107031	419585	190320	727004	329763
1265	87.21	59222	26862	85259	38672	151631	68778	199057	90290	236890	107451	421231	191067	729857	331057
1270	87.56	59454	26967	85592	38823	152224	69047	199835	90643	237816	107871	422878	191814	732709	332351
1275	87.90	59685	27072	85925	38974	152816	69316	200613	90996	238742	108291	424524	192560	735562	333645
1280	88.25	59917	27177	86258	39125	153409	69585	201391	91349	239668	108711	426170	193307	738415	334939
1285	88.59	60148	27282	86592	39277	154002	69854	202169	91702	240594	109131	427817	194054	741267	336233
1290	88.94	60380	27387	86925	39428	154594	70122	202947	92055	241520	109551	429463	194801	744120	337527
1300	89.63	60842	27597	87591	39730	155780	70660	204503	92761	243371	110391	432756	196294	749825	340114
1305	89.97	61074	27702	87925	39882	156372	70929	205281	93113	244297	110811	434402	197041	752678	341409
1310	90.32	61305	27807	88258	40033	156965	71198	206059	93466	245223	111231	436049	197788	755530	342702
1315	90.66	61537	27912	88591	40184	157558	71467	206837	93819	246149	111651	437695	198535	758383	343996
1320	91.01	61768	28017	88924	40335	158150	71735	207615	94172	247075	112071	439341	199281	761236	345290
1325	91.35	62000	28122	89258	40486	158743	72004	208393	94525	248001	112491	440988	200028	764088	346584
1330	91.70	62231	28227	89591	40637	159335	72273	209171	94878	248927	112911	442634	200775	766941	347878
1335	92.04	62463	28332	89924	40788	159928	72542	209949	95231	249853	113331	444281	201522	769793	349172
1340	92.38	62694	28437	90257	40939	160521	72811	210727	95584	250779	113751	445927	202269	772646	350466

Orifice Capacities

Valve Capacity for ASME B and PV Code Section I, for Saturated Steam

The saturated steam table is based at 3 percent overpressure or 2 psig (0.14 barg), whichever is greater, showing 90 percent actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		0.994	6.413	1.431	9.232	2.545	16.419	3.341	21.555	3.976	25.652	7.070	45.613	12.250	79.032
Orifice Capacity															
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
1345	92.73	62926	28542	90590	41090	16113	73079	211505	95937	251704	114171	447573	203015	775499	351760
1350	93.07	63157	28647	90924	41242	161706	73348	212283	96289	252630	114591	449220	203762	778351	353054
1355	93.42	63389	28752	91257	41393	162299	73617	213061	96642	253556	115011	450866	204509	781204	354348
1360	93.76	63620	28857	91590	41544	162891	73886	213839	96995	254482	115431	452512	205256	784057	355642
1365	94.11	63852	28962	91923	41695	163484	74155	214617	97348	255408	115851	454159	206003	786909	356935
1370	94.45	64083	29067	92257	41847	164077	74424	215395	97701	256334	116271	455805	206749	789762	358230
1375	94.80	64315	29172	92590	41998	164669	74692	216173	98054	257260	116691	457452	207496	792615	359524
1380	95.14	64546	29277	92923	42149	165262	74961	216951	98407	258186	117111	459098	208243	795467	360817
1385	95.49	64777	29382	93256	42300	165855	75230	217729	98760	259111	117530	460744	208989	798320	362111
1390	95.83	65009	29487	93590	42451	166447	75499	218507	99113	260037	117950	462391	209737	801172	363405
1395	96.18	65240	29592	93923	42602	167040	75768	219285	99466	260963	118370	464037	210483	804025	364699
1400	96.52	65472	29697	94256	42753	167633	76037	220063	99818	261889	118790	465683	211230	806878	365993
1405	96.87	65703	29802	94589	42904	168225	76305	220841	100171	262815	119210	467330	211977	809730	367287
1410	97.21	65935	29907	94923	43056	168818	76574	221619	100524	263741	119630	468976	212723	812583	368581
1415	97.56	66166	30012	95256	43207	169410	76843	222397	100877	264667	120050	470623	213471	815436	369875
1420	97.90	66398	30117	95589	43358	170003	77112	223175	101230	265593	120470	472269	214217	818288	371169
1425	98.25	66629	30222	95922	43509	170596	77381	223953	101583	266519	120890	473915	214964	821141	372463
1430	98.59	66861	30327	96255	43660	171188	77649	224731	101936	267444	121310	475562	215711	823993	373756
1435	98.93	67092	30432	96589	43812	171781	77918	225509	102289	268370	121730	477208	216457	826846	375051
1440	99.28	67324	30537	96922	43963	172374	78187	226287	102642	269296	122150	478854	217204	829699	376345
1445	99.62	67555	30642	97255	44114	172966	78456	227065	102994	270222	122570	480501	217951	832551	377638
1450	99.97	67787	30747	97588	44265	173559	78725	227843	103347	271148	122990	482147	218698	835404	378932
1455	100.31	68018	30852	97922	44416	174152	78994	228621	103700	272074	123410	483794	219445	838257	380227
1460	100.66	68250	30957	98255	44567	174744	79262	229399	104053	273000	123830	485440	220191	841109	381520
1465	101.00	68481	31062	98588	44718	175337	79531	230177	104406	273926	124250	487086	220938	843962	382814
1470	101.35	68712	31167	98921	44869	175930	79800	230955	104759	274851	124670	488733	221685	846814	384108
1475	101.69	68944	31272	99255	45021	176522	80069	231733	105112	275777	125090	490379	222432	849667	385402
1480	102.04	69175	31377	99588	45172	177115	80338	232511	105465	276703	125510	492025	223178	852520	386696
1485	102.38	69407	31482	99921	45323	177708	80606	233289	105818	277629	125930	493672	223925	855372	387990
1490	102.73	69638	31587	100254	45474	178300	80875	234067	106171	278555	126350	495318	224672	858225	389284
1495	103.07	69870	31692	100587	45625	178893	81144	234845	106523	279481	126770	496965	225419	861078	390578
1500	103.42	70101	31797	100921	45776	179486	81413	235623	106876	280407	127190	498611	226166	863930	391872
1505	103.76	70333	31902	101254	45927	180078	81682	236401	107229	281333	127610	500257	226912	866783	393166
1510	104.11	70564	32007	101587	46078	180671	81950	237179	107582	282258	128030	501904	227659	869635	394459
1515	104.45	70796	32112	101920	46230	181263	82219	237957	107935	283184	128450	503550	228406	872488	395753
1520	104.80	71027	32217	102254	46381	181856	82488	238735	108288	284110	128870	505196	229153	875341	397048
1525	105.14	71279	32331	102616	46545	182501	82781	239582	108672	285117	129326	506987	229965	878443	398455
1530	105.48	71531	32445	102979	46710	183146	83073	240428	109056	286125	129784	508779	230778	881548	399863
1535	105.83	71783	32560	103342	46875	183791	83366	241276	109440	287134	130241	510573	231592	884656	401273
1540	106.17	72035	32674	103705	47039	184438	83659	242124	109825	288143	130699	512368	232406	887767	402684
1545	106.52	72288	32789	104069	47204	185084	83952	242973	110210	289154	131158	514164	233220	890879	404095
1550	106.86	72541	32904	104433	47370	185732	84246	243823	110596	290165	131616	515963	234036	893995	405509
1555	107.21	72794	33018	104797	47535	186379	84540	244673	110981	291177	132075	517762	234852	897113	406923
1560	107.55	73047	33133	105161	47700	187028	84834	245524	111367	292190	132535	519563	235669	900233	408338
1565	107.90	73300	33248	105526	47865	187676	85128	246376	111754	293203	132994	521365	236487	903356	409755
1570	108.24	73554	33363	105891	48031	188326	85423	247229	112141	294218	133455	523169	237305	906482	411173
1575	108.59	73808	33478	106257	48197	188976	85718	248082	112528	295233	133915	524975	238124	909610	412592
1580	108.93	74062	33593	106623	48363	189626	86012	248936	112915	296249	134376	526782	238944	912741	414012
1585	109.28	74316	33709	106989	48529	190277	86308	249790	113302	297266	134837	528590	239764	915874	415433
1590	109.62	74571	33824	107355	48695	190929	86603	250646	113691	298284	135299	530400	240585	919010	416855
1595	109.97	74825	33940	107722	48861	191581	86899	251502	114079	299303	135761	532212	241407	922149	418279
1600	110.31	75080	34055	108089	49028	192233	87195	252358	114467	300323	136224	534025	242229	925291	419704

Orifice Capacities

Valve Capacity for ASME B and PV Code Section XIII (UV), for Saturated Steam

The saturated steam table is based at 10 percent overpressure or 3 psig (0.21 barg), whichever is greater, showing 90 percent of actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		0.994	6.413	1.431	9.232	2.545	16.419	3.341	21.555	3.976	25.652	7.070	45.613	12.250	79.032
psig		Orifice Capacity													
barg		lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
100	6.89	5604	2541	8068	3659	14350	6509	18838	8544	22418	10168	39864	18082	69072	31330
105	7.23	5851	2653	8424	3821	14983	6796	19669	8921	23407	10617	41622	18879	72118	32712
110	7.58	6099	2766	8780	3982	15615	7082	20500	9298	24396	11065	43381	19677	75165	34094
115	7.92	6346	2878	9136	4144	16248	7369	21331	9675	25385	11514	45139	20474	78211	35475
120	8.27	6593	2990	9492	4305	16881	7657	22161	10052	26374	11963	46897	21272	81258	36858
125	8.61	6840	3102	9848	4466	17514	7944	22992	10428	27362	12411	48655	22069	84304	38239
130	8.96	7087	3214	10204	4628	18147	8231	23823	10805	28351	12859	50414	22867	87351	39621
135	9.30	7335	3327	10559	4789	18780	8518	24654	11182	29340	13308	52172	23664	90397	41003
140	9.65	7582	3439	10915	4950	19413	8805	25485	11559	30329	13757	53930	24462	93444	42385
145	9.99	7829	3551	11271	5112	20046	9092	26316	11936	31318	14205	55688	25259	96490	43767
150	10.34	8076	3663	11627	5273	20679	9379	27147	12313	32306	14653	57447	26057	99537	45149
155	10.68	8323	3775	11983	5435	21312	9666	27978	12690	33295	15102	59205	26854	102583	46530
160	11.03	8571	3887	12339	5596	21945	9954	28809	13067	34284	15550	60963	27652	105630	47912
165	11.37	8818	3999	12695	5758	22578	10241	29639	13444	35273	15999	62722	28450	108676	49294
170	11.72	9065	4111	13051	5919	23211	10528	30470	13820	36262	16448	64480	29247	111723	50676
175	12.06	9312	4223	13406	6080	23844	10815	31301	14197	37250	16896	66238	30045	114769	52058
180	12.41	9559	4335	13762	6242	24476	11102	32132	14574	38239	17344	67996	30842	117816	53440
185	12.75	9807	4448	14118	6403	25109	11389	32963	14951	39228	17793	69755	31640	120862	54822
190	13.10	10054	4560	14474	6565	25742	11676	33794	15328	40217	18242	71513	32437	123909	56204
195	13.44	10301	4672	14830	6726	26375	11963	34625	15705	41206	18690	73271	33235	126955	57585
200	13.78	10548	4784	15186	6888	27008	12250	35456	16082	42195	19139	75029	34032	130002	58967
205	14.13	10795	4896	15542	7049	27641	12537	36287	16459	43183	19587	76788	34830	133048	60349
210	14.47	11043	5009	15898	7211	28274	12824	37117	16835	44172	20036	78546	35627	136095	61731
215	14.82	11290	5121	16254	7372	28907	13111	37948	17212	45161	20484	80304	36425	139141	63113
220	15.16	11537	5233	16609	7533	29540	13399	38779	17589	46150	20933	82062	37222	142188	64495
225	15.51	11784	5345	16965	7695	30173	13686	39610	17966	47139	21381	83821	38020	145234	65877
230	15.85	12031	5457	17321	7856	30806	13973	40441	18343	48127	21830	85579	38817	148281	67259
235	16.20	12279	5569	17677	8018	31439	14260	41272	18720	49116	22278	87337	39615	151327	68640
240	16.54	12526	5681	18033	8179	32072	14547	42103	19097	50105	22727	89095	40412	154374	70022
245	16.89	12773	5793	18389	8341	32704	14834	42934	19474	51094	23175	90854	41210	157420	71404
250	17.23	13020	5905	18745	8502	33337	15121	43764	19851	52083	23624	92612	42008	160467	72786
255	17.58	13267	6017	19101	8664	33970	15408	44595	20227	53071	24072	94370	42805	163513	74168
260	17.92	13515	6130	19456	8825	34603	15695	45426	20604	54060	24521	96129	43603	166560	75550
265	18.27	13762	6242	19812	8986	35236	15982	46257	20981	55049	24969	97887	44400	169606	76931
270	18.61	14009	6354	20168	9148	35869	16269	47088	21358	56038	25418	99645	45198	172653	78314
275	18.96	14256	6466	20524	9309	36502	16557	47919	21735	57027	25867	101403	45995	175699	79695
280	19.30	14503	6578	20880	9471	37135	16844	48750	22112	58015	26315	103162	46793	178746	81077
285	19.65	14751	6690	21236	9632	37768	17131	49581	22489	59004	26763	104920	47590	181792	82459
290	19.99	14998	6802	21592	9793	38401	17418	50412	22866	59993	27212	106678	48388	184839	83841
295	20.33	15245	6915	21948	9955	39034	17705	51242	23242	60982	27660	108436	49185	187885	85223
300	20.68	15492	7027	22303	10116	39667	17992	52073	23619	61971	28109	110195	49983	190932	86605
305	21.02	15739	7139	22659	10277	40300	18279	52904	23996	62959	28557	111953	50781	193978	87986
310	21.37	15987	7251	23015	10439	40932	18566	53735	24373	63948	29006	113711	51578	197025	89369
315	21.71	16234	7363	23371	10600	41565	18853	54566	24750	64937	29454	115469	52375	200071	90750
320	22.06	16481	7475	23727	10762	42198	19140	55397	25127	65926	29903	117228	53173	203118	92132
325	22.40	16728	7587	24083	10923	42831	19427	56228	25504	66915	30352	118986	53971	206164	93514
330	22.75	16975	7699	24439	11085	43464	19714	57059	25881	67903	30800	120744	54768	209211	94896
335	23.09	17223	7812	24795	11246	44097	20002	57890	26258	68892	31248	122502	55565	212257	96278
340	23.44	17470	7924	25151	11408	44730	20289	58720	26634	69881	31697	124261	56363	215304	97660
345	23.78	17717	8036	25506	11569	45363	20576	59551	27011	70870	32146	126019	57161	218350	99041

Orifice Capacities

Valve Capacity for ASME B and PV Code Section XIII (UV), for Saturated Steam

The saturated steam table is based at 10 percent overpressure or 3 psig (0.21 barg), whichever is greater, showing 90 percent of actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		Orifice Capacity													
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
350	24.13	17964	8148	25862	11730	45996	20863	60382	27388	71859	32594	127777	57958	221397	100423
355	24.47	18211	8260	26218	11892	46629	21150	61213	27765	72847	33042	129536	58756	224443	101805
360	24.82	18459	8372	26574	12053	47262	21437	62044	28142	73836	33491	131294	59553	227490	103187
365	25.16	18706	8484	26930	12215	47895	21724	62875	28519	74825	33940	133052	60351	230536	104569
370	25.51	18953	8596	27286	12376	48528	22011	63706	28896	75814	34388	134810	61148	233583	105951
375	25.85	19200	8708	27642	12538	49161	22299	64537	29273	76803	34837	136569	61946	236629	107333
380	26.20	19448	8821	27998	12699	49793	22585	65367	29649	77792	35285	138327	62744	239676	108715
385	26.54	19695	8933	28353	12860	50426	22872	66198	30026	78780	35734	140085	63541	242722	110096
390	26.88	19942	9045	28709	13022	51059	23159	67029	30403	79769	36182	141843	64338	245769	111478
395	27.23	20189	9157	29065	13183	51692	23447	67860	30780	80758	36631	143602	65136	248815	112860
400	27.57	20436	9269	29421	13345	52325	23734	68691	31157	81747	37079	145360	65934	251862	114242
405	27.92	20684	9382	29777	13506	52958	24021	69522	31534	82736	37528	147118	66731	254908	115624
410	28.26	20931	9494	30133	13668	53591	24308	70353	31911	83724	37976	148876	67529	257955	117006
415	28.61	21178	9606	30489	13829	54224	24595	71184	32288	84713	38425	150635	68326	261001	118388
420	28.95	21425	9718	30845	13991	54857	24882	72015	32665	85702	38873	152393	69124	264048	119770
425	29.30	21672	9830	31201	14152	55490	25169	72845	33041	86691	39322	154151	69921	267094	121151
430	29.64	21920	9942	31556	14313	56123	25456	73676	33418	87680	39770	155909	70719	270141	122533
435	29.99	22167	10054	31912	14475	56756	25744	74507	33795	88668	40219	157668	71517	273187	123915
440	30.33	22414	10166	32268	14636	57389	26031	75338	34172	89657	40667	159426	72314	276234	125297
445	30.68	22661	10278	32624	14797	58021	26317	76169	34549	90646	41116	161184	73111	279280	126679
450	31.02	22908	10390	32980	14959	58654	26605	77000	34926	91635	41564	162943	73909	282327	128061
455	31.37	23156	10503	33336	15120	59287	26892	77831	35303	92624	42013	164701	74707	285373	129443
460	31.71	23403	10615	33692	15282	59920	27179	78662	35680	93612	42461	166459	75504	288420	130825
465	32.06	23650	10727	34048	15443	60553	27466	79493	36057	94601	42910	168217	76301	291466	132206
470	32.40	23897	10839	34403	15604	61186	27753	80323	36433	95590	43358	169976	77099	294513	133588
475	32.75	24144	10951	34759	15766	61819	28040	81154	36810	96579	43807	171734	77897	297559	134970
480	33.09	24392	11064	35115	15927	62452	28327	81985	37187	97568	44256	173492	78694	300606	136352
485	33.43	24639	11176	35471	16089	63085	28614	82816	37564	98556	44704	175250	79492	303652	137734
490	33.78	24886	11288	35827	16250	63718	28902	83647	37941	99545	45152	177009	80289	306698	139115
495	34.12	25133	11400	36183	16412	64351	29189	84478	38318	100534	45601	178767	81087	309745	140497
500	34.47	25380	11512	36539	16573	64984	29476	85309	38695	101523	46050	180525	81884	312791	141879
505	34.81	25628	11624	36895	16735	65617	29763	86140	39072	102512	46498	182283	82682	315838	143261
510	35.16	25875	11736	37250	16896	66249	30050	86970	39448	103500	46946	184042	83480	318884	144643
515	35.50	26122	11848	37606	17057	66882	30337	87801	39825	104489	47395	185800	84277	321931	146025
520	35.85	26369	11960	37962	17219	67515	30624	88632	40202	105478	47844	187558	85074	324977	147407
525	36.19	26616	12072	38318	17380	68148	30911	89463	40579	106467	48292	189316	85872	328024	148789
530	36.54	26864	12185	38674	17542	68781	31198	90294	40956	107456	48741	191075	86670	331070	150170
535	36.88	27111	12297	39030	17703	69414	31485	91125	41333	108444	49189	192833	87467	334117	151552
540	37.23	27358	12409	39386	17865	70047	31772	91956	41710	109433	49637	194591	88264	337163	152934
545	37.57	27605	12521	39742	18026	70680	32059	92787	42087	110422	50086	196350	89062	340210	154316
550	37.92	27852	12633	40098	18188	71313	32347	93618	42464	111411	50535	198108	89860	343256	155698
555	38.26	28100	12745	40453	18349	71946	32634	94448	42840	112400	50983	199866	90657	346303	157080
560	38.61	28347	12857	40809	18510	72579	32921	95279	43217	113389	51432	201624	91455	349349	158462
565	38.95	28594	12970	41165	18672	73212	33208	96110	43594	114377	51880	203383	92252	352396	159844
570	39.30	28841	13082	41521	18833	73845	33495	96941	43971	115366	52329	205141	93050	355442	161225
575	39.64	29088	13194	41877	18995	74478	33782	97772	44348	116355	52777	206899	93847	358489	162607
580	39.98	29336	13306	42233	19156	75110	34069	98603	44725	117344	53226	208657	94645	361535	163989
585	40.33	29583	13418	42589	19318	75743	34356	99434	45102	118333	53674	210416	95443	364582	165371
590	40.67	29830	13530	42945	19479	76376	34643	100265	45479	119321	54123	212174	96240	367628	166753
595	41.02	30077	13642	43300	19640	77009	34930	101096	45856	120310	54571	213932	97037	370675	168135

Orifice Capacities

Valve Capacity for ASME B and PV Code Section XIII (UV), for Saturated Steam

The saturated steam table is based at 10 percent overpressure or 3 psig (0.21 barg), whichever is greater, showing 90 percent of actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		Orifice Capacity													
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
600	41.36	30324	13754	43656	19802	77642	35217	101926	46232	121299	55020	215690	97835	373721	169517
605	41.71	30572	13867	44012	19963	78275	35504	102757	46609	122288	55468	217449	98633	376768	170899
610	42.05	30819	13979	44368	20124	78908	35792	103588	46986	123277	55917	219207	99430	379814	172280
615	42.40	31066	14091	44724	20286	79541	36079	104419	47363	124265	56365	220965	100228	382861	173662
620	42.74	31313	14203	45080	20447	80174	36366	105250	47740	125254	56814	222723	101025	385907	175044
625	43.09	31560	14315	45436	20609	80807	36653	106081	48117	126243	57262	224482	101823	388954	176426
630	43.43	31808	14427	45792	20770	81440	36940	106912	48494	127232	57711	226240	102620	392000	177808
635	43.78	32055	14539	46147	20931	82073	37227	107743	48871	128221	58160	227998	103418	395047	179190
640	44.12	32302	14651	46503	21093	82706	37514	108574	49248	129209	58608	229757	104216	398093	180571
645	44.47	32549	14763	46859	21254	83338	37801	109404	49624	130198	59056	231515	105013	401140	181954
650	44.81	32796	14876	47215	21416	83971	38088	110235	50001	131187	59505	233273	105810	404186	183335
655	45.16	33044	14988	47571	21577	84604	38375	111066	50378	132176	59954	235031	106608	407233	184717
660	45.50	33291	15100	47927	21739	85237	38662	111897	50755	133165	60402	236790	107406	410279	186099
665	45.85	33538	15212	48283	21900	85870	38949	112728	51132	134153	60850	238548	108203	413326	187481
670	46.19	33785	15324	48639	22062	86503	39237	113559	51509	135142	61299	240306	109000	416372	188863
675	46.53	34032	15436	48995	22223	87136	39524	114390	51886	136131	61747	242064	109798	419419	190245
680	46.88	34280	15549	49350	22384	87769	39811	115221	52263	137120	62196	243823	110596	422465	191626
685	47.22	34527	15661	49706	22546	88402	40098	116051	52639	138109	62645	245581	111393	425512	193009
690	47.57	34774	15773	50062	22707	89035	40385	116882	53016	139097	63093	247339	112191	428558	194390
695	47.91	35021	15885	50418	22869	89668	40672	117713	53393	140086	63541	249097	112988	431605	195772
700	48.26	35268	15997	50774	23030	90301	40959	118544	53770	141075	63990	250856	113786	434651	197154
705	48.60	35516	16109	51130	23192	90934	41246	119375	54147	142064	64439	252614	114583	437698	198536
710	48.95	35763	16221	51486	23353	91566	41533	120206	54524	143053	64887	254372	115381	440744	199918
715	49.29	36010	16333	51842	23515	92199	41820	121037	54901	144041	65335	256130	116178	443791	201300
720	49.64	36257	16445	52197	23676	92832	42107	121868	55278	145030	65784	257889	116976	446837	202681
725	49.98	36504	16557	52553	23837	93465	42395	122699	55655	146019	66233	259647	117773	449884	204063
730	50.33	36752	16670	52909	23999	94098	42682	123529	56031	147008	66681	261405	118571	452930	205445
735	50.67	36999	16782	53265	24160	94731	42969	124360	56408	147997	67130	263164	119369	455977	206827
740	51.02	37246	16894	53621	24322	95364	43256	125191	56785	148985	67578	264922	120166	459023	208209
745	51.36	37493	17006	53977	24483	95997	43543	126022	57162	149974	68027	266680	120964	462070	209591
750	51.71	37740	17118	54333	24645	96630	43830	126853	57539	150963	68475	268438	121761	465116	210973
755	52.05	37988	17231	54689	24806	97263	44117	127684	57916	151952	68924	270197	122559	468163	212355
760	52.40	38235	17343	55044	24967	97896	44404	128515	58293	152941	69372	271955	123356	471209	213736
765	52.74	38482	17455	55400	25129	98529	44692	129346	58670	153930	69821	273713	124154	474256	215118
770	53.08	38729	17567	55756	25290	99162	44979	130177	59047	154918	70269	275471	124951	477302	216500
775	53.43	38976	17679	56112	25451	99795	45266	131007	59423	155907	70718	277230	125749	480349	217882
780	53.77	39224	17791	56468	25613	100427	45552	131838	59800	156896	71166	278988	126546	483395	219264
785	54.12	39471	17903	56824	25774	101060	45840	132669	60177	157885	71615	280746	127344	486442	220646
790	54.46	39718	18015	57180	25936	101693	46127	133500	60554	158874	72064	282504	128141	489488	222028
795	54.81	39965	18127	57536	26097	102326	46414	134331	60931	159862	72512	284263	128939	492535	223410
800	55.15	40212	18239	57892	26259	102959	46701	135162	61308	160851	72960	286021	129736	495581	224791
805	55.50	40460	18352	58247	26420	103592	46988	135993	61685	161840	73409	287779	130534	498628	226173
810	55.84	40707	18464	58603	26581	104225	47275	136824	62062	162829	73857	289537	131331	501674	227555
815	56.19	40954	18576	58959	26743	104858	47562	137654	62438	163818	74306	291296	132129	504721	228937
820	56.53	41201	18688	59315	26904	105491	47849	138485	62815	164806	74754	293054	132927	507767	230319
825	56.88	41448	18800	59671	27066	106124	48137	139316	63192	165795	75203	294812	133724	510814	231701
830	57.22	41696	18912	60027	27227	106757	48424	140147	63569	166784	75651	296571	134522	513860	233082
835	57.57	41943	19025	60383	27389	107390	48711	140978	63946	167773	76100	298329	135319	516907	234465
840	57.91	42190	19137	60739	27550	108023	48998	141809	64323	168762	76549	300087	136117	519953	235846
845	58.26	42437	19249	61094	27711	108655	49285	142640	64700	169750	76997	301845	136914	523000	237228

Orifice Capacities

Valve Capacity for ASME B and PV Code Section XIII (UV), for Saturated Steam

The saturated steam table is based at 10 percent overpressure or 3 psig (0.21 barg), whichever is greater, showing 90 percent of actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		Orifice Capacity													
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
850	58.60	42684	19361	61450	27873	109288	49572	143471	65077	170739	77445	303604	137712	526046	238610
855	58.95	42932	19473	61806	28034	109921	49859	144302	65454	171728	77894	305362	138509	529093	239992
860	59.29	43179	19585	62162	28196	110554	50146	145132	65830	172717	78343	307120	139307	532139	241374
865	59.63	43426	19697	62518	28357	111187	50433	145963	66207	173706	78791	308878	140104	535186	242756
870	59.98	43673	19809	62874	28519	111820	50720	146794	66584	174694	79239	310637	140902	538232	244137
875	60.32	43920	19921	63230	28680	112453	51007	147625	66961	175683	79688	312395	141699	541279	245520
880	60.67	44168	20034	63586	28842	113086	51294	148456	67338	176672	80137	314153	142497	544325	246901
885	61.01	44415	20146	63942	29003	113719	51582	149287	67715	177661	80585	315911	143294	547372	248283
890	61.36	44662	20258	64297	29164	114352	51869	150118	68092	178650	81034	317670	144092	550418	249665
895	61.70	44909	20370	64653	29326	114985	52156	150949	68469	179638	81482	319428	144890	553465	251047
900	62.05	45156	20482	65009	29487	115618	52443	151780	68846	180627	81931	321186	145687	556511	252429
905	62.39	45404	20594	65365	29649	116251	52730	152610	69222	181616	82379	322944	146484	559558	253811
910	62.74	45651	20706	65721	29810	116883	53017	153441	69599	182605	82828	324703	147282	562604	255192
915	63.08	45898	20818	66077	29972	117516	53304	154272	69976	183594	83276	326461	148080	565651	256574
920	63.43	46145	20931	66433	30133	118149	53591	155103	70353	184582	83724	328219	148877	568697	257956
925	63.77	46392	21043	66789	30294	118782	53878	155934	70730	185571	84173	329978	149675	571744	259338
930	64.12	46640	21155	67144	30456	119415	54165	156765	71107	186560	84622	331736	150472	574790	260720
935	64.46	46887	21267	67500	30617	120048	54452	157596	71484	187549	85070	333494	151270	577837	262102
940	64.81	47134	21379	67856	30778	120681	54739	158427	71861	188538	85519	335252	152067	580883	263484
945	65.15	47381	21491	68212	30940	121314	55027	159257	72237	189527	85968	337011	152865	583930	264866
950	65.50	47628	21603	68568	31101	121947	55314	160088	72614	190515	86416	338769	153663	586976	266247
955	65.84	47876	21716	68924	31263	122580	55601	160919	72991	191504	86864	340527	154460	590023	267629
960	66.18	48123	21828	69280	31424	123213	55888	161750	73368	192493	87313	342285	155257	593069	269011
965	66.53	48370	21940	69636	31586	123846	56175	162581	73745	193482	87761	344044	156055	596116	270393
970	66.87	48617	22052	69991	31747	124479	56462	163412	74122	194471	88210	345802	156853	599162	271775
975	67.22	48864	22164	70347	31908	125112	56749	164243	74499	195459	88658	347560	157650	602209	273157
980	67.56	49112	22276	70703	32070	125744	57036	165074	74876	196448	89107	349318	158447	605255	274539
985	67.91	49359	22388	71059	32231	126377	57323	165905	75253	197437	89555	351077	159245	608302	275921
990	68.25	49606	22500	71415	32393	127010	57610	166735	75629	198426	90004	352835	160043	611348	277302
995	68.60	49853	22612	71771	32554	127643	57897	167566	76006	199415	90453	354593	160840	614395	278684
1000	68.94	50100	22724	72127	32716	128276	58185	168397	76383	200403	90901	356351	161638	617441	280066
1005	69.29	50348	22837	72483	32877	128909	58472	169228	76760	201392	91349	358110	162435	620488	281448
1010	69.63	50595	22949	72839	33039	129542	58759	170059	77137	202381	91798	359868	163233	623534	282830
1015	69.98	50842	23061	73194	33200	130175	59046	170890	77514	203370	92247	361626	164030	626581	284212
1020	70.32	51089	23173	73550	33361	130808	59333	171721	77891	204359	92695	363385	164828	629627	285594
1025	70.67	51336	23285	73906	33523	131441	59620	172552	78268	205347	93143	365143	165626	632674	286976
1030	71.01	51584	23398	74262	33684	132074	59907	173383	78645	206336	93592	366901	166423	635720	288357
1035	71.36	51831	23510	74618	33846	132707	60194	174213	79021	207325	94041	368659	167220	638766	289739
1040	71.70	52078	23622	74974	34007	133340	60482	175044	79398	208314	94489	370418	168018	641813	291121
1045	72.05	52325	23734	75330	34169	133972	60768	175875	79775	209303	94938	372176	168816	644859	292503
1050	72.39	52572	23846	75686	34330	134605	61055	176706	80152	210291	95386	373934	169613	647906	293885
1055	72.73	52820	23958	76041	34491	135238	61342	177537	80529	211280	95835	375692	170411	650952	295266
1060	73.08	53067	24070	76397	34653	135871	61630	178368	80906	212269	96283	377451	171208	653999	296648
1065	73.42	53314	24182	76753	34814	136504	61917	179199	81283	213258	96732	379209	172006	657045	298030
1070	73.77	53561	24294	77109	34976	137137	62204	180030	81660	214247	97180	380967	172803	660092	299412
1075	74.11	53808	24406	77465	35137	137770	62491	180861	82037	215235	97628	382725	173601	663138	300794
1080	74.46	54056	24519	77821	35299	138403	62778	181691	82413	216224	98077	384484	174399	666185	302176
1085	74.80	54303	24631	78177	35460	139036	63065	182522	82790	217213	98526	386242	175196	669231	303558
1090	75.15	54550	24743	78533	35621	139669	63352	183353	83167	218202	98974	388000	175993	672278	304940
1095	75.49	54797	24855	78888	35782	140302	63639	184184	83544	219191	99423	389758	176791	675324	306321

Orifice Capacities

Valve Capacity for ASME B and PV Code Section XIII (UV), for Saturated Steam

The saturated steam table is based at 10 percent overpressure or 3 psig (0.21 barg), whichever is greater, showing 90 percent of actual capacity

Orifice Designation		1		2		3		5		4		6		Q	
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²
Set Pressure		0.994	6.413	1.431	9.232	2.545	16.419	3.341	21.555	3.976	25.652	7.070	45.613	12.250	79.032
Orifice Capacity															
psig	barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
1100	75.84	55044	24967	79244	35944	140935	63927	185015	83921	220179	99871	391517	177589	678371	307703
1105	76.18	55292	25080	79600	36105	141568	64214	185846	84298	221168	100320	393275	178386	681417	309085
1110	76.53	55539	25192	79956	36267	142200	64500	186677	84675	222157	100768	395033	179183	684464	310467
1115	76.87	55786	25304	80312	36428	142833	64787	187508	85052	223146	101217	396792	179981	687510	311849
1120	77.22	56033	25416	80668	36590	143466	65075	188338	85428	224135	101665	398550	180779	690557	313231
1125	77.56	56281	25528	81024	36751	144099	65362	189169	85805	225124	102114	400308	181576	693603	314613
1130	77.91	56528	25640	81380	36913	144732	65649	190000	86182	226112	102562	402066	182374	696650	315995
1135	78.25	56775	25752	81736	37074	145365	65936	190831	86559	227101	103011	403825	183171	699696	317376
1140	78.60	57022	25864	82091	37235	145998	66223	191662	86936	228090	103459	405583	183969	702743	318758
1145	78.94	57269	25976	82447	37397	146631	66510	192493	87313	229079	103908	407341	184766	705789	320140
1150	79.28	57517	26089	82803	37558	147264	66797	193324	87690	230068	104357	409099	185564	708836	321522
1155	79.63	57764	26201	83159	37720	147897	67084	194155	88067	231056	104805	410858	186362	711882	322904
1160	79.97	58011	26313	83515	37881	148530	67372	194986	88444	232045	105253	412616	187159	714929	324286
1165	80.32	58258	26425	83871	38043	149163	67659	195816	88820	233034	105702	414374	187956	717975	325668
1170	80.66	58505	26537	84227	38204	149796	67946	196647	89197	234023	106151	416132	188754	721022	327050
1175	81.01	58753	26649	84583	38366	150429	68233	197478	89574	235012	106599	417891	189552	724068	328431
1180	81.35	59000	26761	84938	38527	151061	68520	198309	89951	236000	107047	419649	190349	727115	329813
1185	81.70	59247	26873	85294	38688	151694	68807	199140	90328	236989	107496	421407	191147	730161	331195
1190	82.04	59494	26986	85650	38850	152327	69094	199971	90705	237978	107945	423165	191944	733208	332577
1195	82.39	59741	27098	86006	39011	152960	69381	200802	91082	238967	108393	424924	192742	736254	333959
1200	82.73	59989	27210	86362	39173	153593	69668	201633	91459	239956	108842	426682	193539	739301	335341
1205	83.08	60236	27322	86718	39334	154226	69955	202464	91836	240944	109290	428440	194337	742347	336722
1210	83.42	60483	27434	87074	39496	154859	70242	203294	92212	241933	109738	430199	195134	745394	338105
1215	83.77	60730	27546	87430	39657	155492	70529	204125	92589	242922	110187	431957	195932	748440	339486
1220	84.11	60977	27658	87785	39818	156125	70817	204956	92966	243911	110636	433715	196729	751487	340868
1225	84.46	61225	27771	88141	39980	156758	71104	205787	93343	244900	111084	435473	197527	754533	342250
1230	84.80	61472	27883	88497	40141	157391	71391	206618	93720	245888	111532	437232	198325	757580	343632
1235	85.15	61719	27995	88853	40303	158024	71678	207449	94097	246877	111981	438990	199122	760626	345014
1240	85.49	61966	28107	89209	40464	158657	71965	208280	94474	247866	112430	440748	199919	763673	346396
1245	85.83	62213	28219	89565	40626	159289	72252	209111	94851	248855	112878	442506	200717	766719	347777
1250	86.18	62461	28331	89921	40787	159922	72539	209941	95227	249844	113327	444265	201515	769766	349160
1255	86.52	62708	28443	90277	40948	160555	72826	210772	95604	250832	113775	446023	202312	772812	350541
1260	86.87	62955	28555	90633	41109	161188	73113	211603	95981	251821	114224	447781	203110	775859	351923
1265	87.21	63202	28667	90988	41271	161821	73400	212434	96358	252810	114672	449539	203907	778905	353305
1270	87.56	63449	28779	91344	41432	162454	73687	213265	96735	253799	115121	451298	204705	781952	354687
1275	87.90	63697	28892	91700	41594	163087	73975	214096	97112	254788	115569	453056	205502	784998	356069
1280	88.25	63944	29004	92056	41755	163720	74262	214927	97489	255776	116018	454814	206300	788045	357451
1285	88.59	64191	29116	92412	41917	164353	74549	215758	97866	256765	116466	456572	207097	791091	358832
1290	88.94	64438	29228	92768	42078	164986	74836	216589	98243	257754	116915	458331	207895	794138	360214
1295	89.28	64685	29340	93124	42240	165619	75123	217419	98619	258743	117363	460089	208692	797184	361596
1300	89.63	64933	29453	93480	42401	166252	75410	218250	98996	259732	117812	461847	209490	800231	362978
1305	89.97	65180	29565	93835	42562	166885	75697	219081	99373	260721	118261	463606	210288	803277	364360
1310	90.32	65427	29677	94191	42724	167517	75984	219912	99750	261710	118709	465364	211085	806324	365742
1315	90.66	65674	29789	94547	42885	168150	76271	220743	100127	262698	119157	467122	211882	809370	367124
1320	91.01	65921	29901	94903	43047	168783	76558	221574	100504	263687	119606	468880	212680	812417	368506
1325	91.35	66169	30013	95259	43208	169416	76845	222405	100881	264676	120055	470639	213478	815463	369887
1330	91.70	66416	30125	95615	43370	170049	77132	223236	101258	265665	120503	472397	214275	818510	371269
1335	92.04	66663	30237	95971	43531	170682	77420	224067	101635	266653	120951	474155	215073	821556	372651
1340	92.38	66910	30349	96327	43693	171315	77707	224897	102011	267642	121400	475913	215870	824603	374033
1345	92.73	67157	30461	96682	43854	171948	77994	225728	102388	268631	121848	477672	216668	827649	375415

Orifice Capacities

Valve Capacity for ASME B and PV Code Section XIII (UV), for Saturated Steam

The saturated steam table is based at 10 percent overpressure or 3 psig (0.21 barg), whichever is greater, showing 90 percent of actual capacity

Orifice Designation		1		2		3		5		4		6		Q		
Orifice Area		in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	in ²	cm ²	
Set Pressure		0.994	6.413	1.431	9.232	2.545	16.419	3.341	21.555	3.976	25.652	7.070	45.613	12.250	79.032	
psig		Orifice Capacity														
barg	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr	lb/hr	kg/hr
1350	93.07	67405	30574	97038	44015	172581	78281	226559	102765	269620	122297	479430	217465	830696	376797	
1355	93.42	67652	30686	97394	44177	173214	78568	227390	103142	270609	122746	481188	218263	833742	378179	
1360	93.76	67899	30798	97750	44338	173847	78855	228221	103519	271597	123194	482946	219060	836789	379561	
1365	94.11	68146	30910	98106	44500	174480	79142	229052	103896	272586	123642	484705	219858	839835	380942	
1370	94.45	68393	31022	98462	44661	175113	79429	229883	104273	273575	124091	486463	220655	842882	382324	
1375	94.80	68641	31135	98818	44823	175745	79716	230714	104650	274564	124540	488221	221453	845928	383706	
1380	95.14	68888	31247	99174	44984	176378	80003	231544	105026	275553	124988	489979	222250	848975	385088	
1385	95.49	69135	31359	99530	45146	177011	80290	232375	105403	276541	125436	491738	223048	852021	386470	
1390	95.83	69382	31471	99885	45307	177644	80577	233206	105780	277530	125885	493496	223846	855068	387852	
1395	96.18	69629	31583	100241	45468	178277	80865	234037	106157	278519	126334	495254	224643	858114	389233	
1400	96.52	69877	31695	100597	45630	178910	81152	234868	106534	279508	126782	497013	225441	861161	390616	
1405	96.87	70124	31807	100953	45791	179543	81439	235699	106911	280497	127231	498771	226238	864207	391997	
1410	97.21	70371	31919	101309	45952	180176	81726	236530	107288	281485	127679	500529	227036	867254	393379	
1415	97.56	70618	32031	101665	46114	180809	82013	237361	107665	282474	128128	502287	227833	870300	394761	
1420	97.90	70865	32143	102021	46275	181442	82300	238192	108042	283463	128576	504046	228631	873347	396143	
1425	98.25	71120	32259	102387	46441	182094	82596	239047	108429	284482	129038	505857	229452	876485	397566	
1430	98.59	71389	32381	102774	46617	182782	82908	239951	108839	285557	129526	507770	230320	879799	399070	
1435	98.93	71658	32503	103162	46793	183472	83221	240856	109250	286634	130015	509685	231189	883117	400575	
1440	99.28	71928	32625	103550	46969	184162	83534	241762	109661	287712	130503	511601	232058	886438	402081	
1445	99.62	72197	32748	103938	47145	184852	83847	242668	110072	288791	130993	513519	232928	889761	403588	
1450	99.97	72467	32870	104327	47321	185543	84160	243575	110483	289870	131482	515439	233799	893087	405097	
1455	100.31	72737	32992	104716	47498	186235	84474	244483	110895	290951	131973	517360	234670	896416	406607	
1460	100.66	73008	33115	105105	47674	186927	84788	245392	111307	292032	132463	519283	235542	899748	408118	
1465	101.00	73278	33238	105494	47851	187620	85103	246302	111720	293115	132954	521208	236415	903083	409631	
1470	101.35	73549	33361	105884	48028	188313	85417	247212	112133	294198	133445	523134	237289	906421	411145	
1475	101.69	73820	33484	106275	48205	189007	85732	248123	112546	295282	133937	525062	238164	909762	412661	
1480	102.04	74092	33607	106665	48382	189702	86047	249035	112960	296368	134430	526992	239039	913106	414177	
1485	102.38	74363	33730	107056	48559	190397	86362	249948	113374	297454	134922	528924	239915	916453	415696	
1490	102.73	74635	33853	107448	48737	191093	86678	250862	113789	298541	135415	530857	240792	919803	417215	
1495	103.07	74907	33977	107839	48914	191790	86994	251776	114203	299630	135909	532792	241670	923155	418736	
1500	103.42	75179	34100	108231	49092	192487	87310	252691	114618	300719	136403	534729	242549	926511	420258	
1505	103.76	75452	34224	108624	49271	193185	87627	253608	115034	301809	136898	536668	243428	929870	421781	
1510	104.11	75725	34348	109016	49448	193883	87943	254524	115450	302900	137393	538608	244308	933232	423306	
1515	104.45	75998	34472	109409	49627	194582	88260	255442	115866	303992	137888	540550	245189	936597	424833	
1520	104.80	76271	34595	109803	49805	195282	88578	256361	116283	305086	138384	542494	246071	939966	426361	
1525	105.14	76545	34720	110197	49984	195983	88896	257280	116700	306180	138880	544440	246953	943337	427890	
1530	105.48	76818	34844	110591	50163	196684	89214	258201	117118	307275	139377	546388	247837	946711	429420	
1535	105.83	77092	34968	110985	50341	197385	89532	259122	117535	308371	139874	548337	248721	950089	430953	
1540	106.17	77367	35093	111380	50521	198088	89851	260044	117953	309469	140372	550288	249606	953470	432486	
1545	106.52	77641	35217	111776	50700	198791	90170	260967	118372	310567	140870	552241	250492	956854	434021	
1550	106.86	77916	35342	112171	50879	199495	90489	261891	118791	311667	141369	554196	251379	960241	435558	
1555	107.21	78191	35466	112567	51059	200199	90808	262815	119210	312767	141868	556153	252266	963632	437096	
1560	107.55	78467	35592	112964	51239	200904	91128	263741	119630	313868	142368	558112	253155	967025	438635	
1565	107.90	78742	35716	113361	51419	201610	91448	264667	120050	314971	142868	560072	254044	970422	440176	
1570	108.24	79018	35841	113758	51599	202316	91768	265595	120471	316075	143369	562035	254934	973823	441718	
1575	108.59	79294	35967	114156	51780	203023	92089	266523	120892	317179	143869	563999	255825	977226	443262	
1580	108.93	79571	36092	114554	51960	203731	92410	267452	121314	318285	144371	565965	256717	980633	444807	
1585	109.28	79848	36218	114952	52141	204440	92732	268382	121736	319392	144873	567933	257610	984044	446354	
1590	109.62	80125	36344	115351	52322	205149	93054	269313	122158	320500	145376	569904	258504	987457	447902	
1595	109.97	80402	36469	115750	52503	205859	93376	270245	122581	321609	145879	571876	259398	990874	449452	
1600	110.31	80679	36595	116149	52684	206569	93698	271178	123004	322719	146382	573850	260293	994295	451004	

Orifice Capacities

Superheat Correction Factor ^{(1)&(2)}																	
Total Temp. (°F)	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
Flowing Pressure	Superheat Correction Factor K_{sh}																
psia ⁽³⁾																	
50	0.987	0.957	0.930	0.905	0.882	0.861	0.841	0.823	0.805	0.789	0.774	0.759	0.745	0.732	0.719	0.708	0.696
100	0.998	0.963	0.935	0.909	0.885	0.864	0.843	0.825	0.807	0.790	0.775	0.760	0.746	0.733	0.720	0.708	0.697
150	0.984	0.970	0.940	0.913	0.888	0.866	0.846	0.826	0.808	0.792	0.776	0.761	0.747	0.733	0.721	0.709	0.697
200	0.979	0.977	0.945	0.917	0.892	0.869	0.848	0.828	0.810	0.793	0.777	0.762	0.748	0.734	0.721	0.709	0.698
250	-	0.972	0.951	0.921	0.895	0.871	0.850	0.830	0.812	0.794	0.778	0.763	0.749	0.735	0.722	0.710	0.698
300	-	0.968	0.957	0.926	0.898	0.874	0.852	0.832	0.813	0.796	0.780	0.764	0.750	0.736	0.723	0.710	0.699
350	-	0.968	0.963	0.930	0.902	0.877	0.854	0.834	0.815	0.797	0.781	0.765	0.750	0.736	0.723	0.711	0.699
400	-	-	0.963	0.935	0.906	0.880	0.857	0.836	0.816	0.798	0.782	0.766	0.751	0.737	0.724	0.712	0.700
450	-	-	0.961	0.940	0.909	0.883	0.859	0.838	0.818	0.800	0.783	0.767	0.752	0.738	0.725	0.712	0.700
500	-	-	0.961	0.946	0.914	0.886	0.862	0.840	0.820	0.801	0.784	0.768	0.753	0.739	0.725	0.713	0.701
550	-	-	0.962	0.952	0.918	0.889	0.864	0.842	0.822	0.803	0.785	0.769	0.754	0.740	0.726	0.713	0.701
600	-	-	0.964	0.958	0.922	0.892	0.867	0.844	0.823	0.804	0.787	0.770	0.755	0.740	0.727	0.714	0.702
650	-	-	0.968	0.958	0.927	0.896	0.869	0.846	0.825	0.806	0.788	0.771	0.756	0.741	0.728	0.715	0.702
700	-	-	-	0.958	0.931	0.899	0.872	0.848	0.827	0.807	0.789	0.772	0.757	0.742	0.728	0.715	0.703
750	-	-	-	0.958	0.936	0.903	0.875	0.850	0.828	0.809	0.790	0.774	0.758	0.743	0.729	0.716	0.703
800	-	-	-	0.960	0.942	0.906	0.878	0.852	0.830	0.810	0.792	0.774	0.759	0.744	0.730	0.716	0.704
850	-	-	-	0.962	0.947	0.910	0.880	0.855	0.832	0.812	0.793	0.776	0.760	0.744	0.730	0.717	0.704
900	-	-	-	0.965	0.953	0.914	0.883	0.857	0.834	0.813	0.794	0.777	0.760	0.745	0.731	0.718	0.705
950	-	-	-	0.969	0.958	0.918	0.886	0.860	0.836	0.815	0.796	0.778	0.761	0.746	0.732	0.718	0.705
1000	-	-	-	0.974	0.959	0.923	0.890	0.862	0.838	0.816	0.797	0.779	0.762	0.747	0.732	0.719	0.706
1050	-	-	-	-	0.960	0.927	0.893	0.864	0.840	0.818	0.798	0.780	0.763	0.748	0.733	0.719	0.707
1100	-	-	-	-	0.962	0.931	0.896	0.867	0.842	0.820	0.800	0.781	0.764	0.749	0.734	0.720	0.707
1150	-	-	-	-	0.964	0.936	0.899	0.870	0.844	0.821	0.801	0.782	0.765	0.749	0.735	0.721	0.708
1200	-	-	-	-	0.966	0.941	0.903	0.872	0.846	0.823	0.802	0.784	0.766	0.750	0.735	0.721	0.708
1250	-	-	-	-	0.969	0.946	0.906	0.875	0.848	0.825	0.804	0.785	0.767	0.751	0.736	0.722	0.709
1300	-	-	-	-	0.973	0.952	0.910	0.878	0.850	0.826	0.805	0.786	0.768	0.752	0.737	0.723	0.709
1350	-	-	-	-	0.977	0.958	0.914	0.880	0.852	0.828	0.807	0.787	0.769	0.753	0.737	0.723	0.710
1400	-	-	-	-	0.982	0.963	0.918	0.883	0.854	0.830	0.808	0.788	0.770	0.754	0.738	0.724	0.710
1450	-	-	-	-	0.987	0.968	0.922	0.886	0.857	0.832	0.809	0.790	0.771	0.754	0.739	0.724	0.711
1500	-	-	-	-	0.993	0.970	0.926	0.889	0.859	0.833	0.811	0.791	0.772	0.755	0.740	0.725	0.711
1550	-	-	-	-	-	0.972	0.930	0.892	0.861	0.835	0.812	0.792	0.773	0.756	0.740	0.726	0.712
1600	-	-	-	-	-	0.973	0.934	0.894	0.863	0.836	0.813	0.792	0.774	0.756	0.740	0.726	0.712
1650	-	-	-	-	-	0.973	0.936	0.895	0.863	0.836	0.812	0.791	0.772	0.755	0.739	0.724	0.710
1700	-	-	-	-	-	0.973	0.938	0.895	0.863	0.835	0.811	0.790	0.771	0.754	0.738	0.723	0.709
1750	-	-	-	-	-	0.974	0.940	0.896	0.862	0.835	0.810	0.789	0.770	0.752	0.736	0.721	0.707
1800	-	-	-	-	-	0.975	0.942	0.897	0.862	0.834	0.810	0.788	0.768	0.751	0.735	0.720	0.705

1. For capacity on superheated steam, multiply saturated steam capacity by correction factor.
2. Convert set pressure from (psig) to (psia) flowing pressure.
3. PSIA flowing = [set pressure psig x overpressure] + 14.7

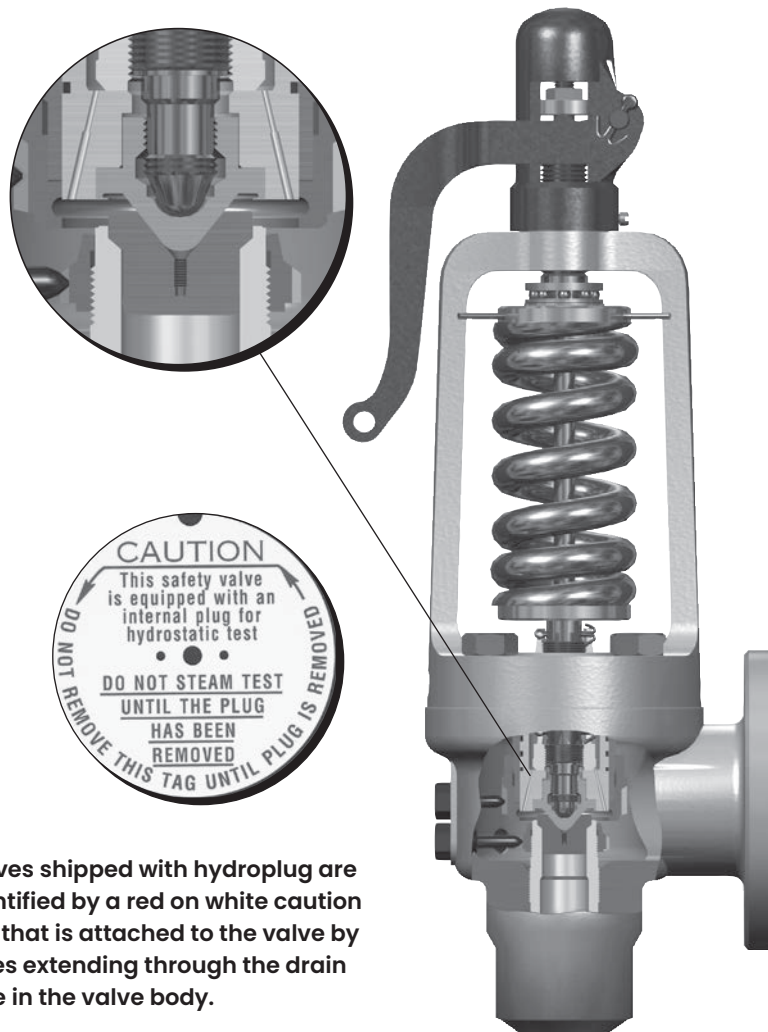
Hydrostatic Test Plugs

For butt weld inlet valves, hydrostatic test plugs are typically installed before shipping because they increase the "set point" by approximately 1.5 times the valve set pressure during hydrostatic testing.

Hydrostatic Test Plugs ⁽¹⁾	
Inlet Type	Installed Before Shipping
Butt weld Inlet	Yes
Flanged Inlet	No

1. Hydrostatic test plugs may be added or removed upon specific request.
2. Consult your maintenance manual for hydrostatic testing and gagging procedures.

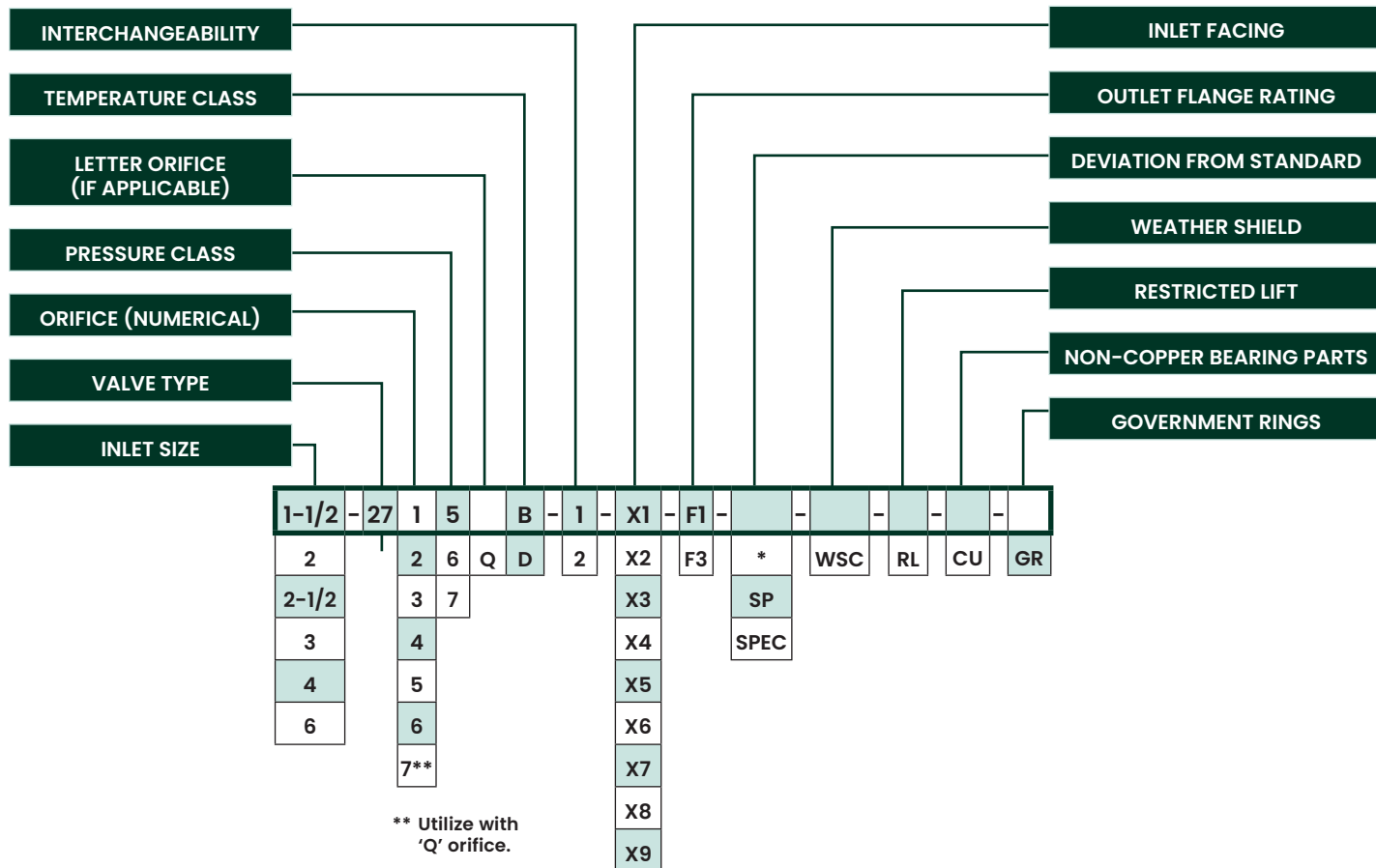
2700 Series CSV Hydrostatic Test Plugs



Valves shipped with hydroplug are identified by a red on white caution tag that is attached to the valve by wires extending through the drain hole in the valve body.

Valve Configuration Code

Flanged Inlet



Standard Valve Connection				
Inlet Sizes		Orifice	Area	
in.	mm		in ²	cm ²
1.50	38.1	1	0.994	6.413
2.00	50.8	2	1.431	9.232
2.50	63.5	3	2.545	16.419
3.00	76.2	5	3.341	21.555
3.00	76.2	4	3.976	25.652
4.00	101.6	6	7.070	45.613
6.00	152.4	7_Q	12.250	79.032

Material Trim	
Designation	Description
N/A	Standard
CU	Non-Copper Bearing Internal Parts

Pressure Class	
Designation	Class
5	600# ASME
6	900# ASME
7	1500# ASME

Inlet Flange Facing	
Designation	Facing
X1	Raised Face Serrated
X2	Raised Face Smooth
X3	Ring Joint
X4	Large Tongue
X5	Large Groove
X6	Small Tongue
X7	Small Groove
X8	Large Female
X9	Large Male

Temperature Class	
Designation	Range
B	To 750°F (399°C)
D	To 1050°F (566°C)

Outlet Flange Rating	
Designation	Class
F1 (Standard)	150# ASME
F3	300# ASME

Interchangeability Number	
Designation	Class
1 or 2	Varies per Valve Type

Ordering a 2700 Safety Valve

How to Order a 2700 Safety Valve

Please Specify:

Type of Application

- | | | |
|----|-------------|------------------|
| a) | Boiler Drum | |
| b) | Superheater | |
| c) | Reheater | |
| d) | Other | _____ (identify) |

Applicable ASME Code

- | | | |
|----|---|--|
| a) | Section I (V Designator) - Power Boiler | |
| b) | Section XIII (UV Designator) - Pressure Vessels | |

Single Valve System _____

Multiple Valve System _____

System Parameters (For drum, superheater, or reheater)

- | | | |
|----|-----------------------|-------------------|
| a) | Design Pressure | _____ psig (barg) |
| b) | Design Temperature | _____ °F (°C) |
| c) | Operating Pressure | _____ psig (barg) |
| d) | Operating Temperature | _____ °F (°C) |

Valve Specifications

- | | | |
|----|---------------------------------|---------------------|
| a) | Valve Set Pressure | _____ psig (barg) |
| b) | Allowable Overpressure on Valve | _____ percent |
| c) | Relieving Capacity | _____ lb/hr (kg/hr) |

d) Buttweld Valves

Inlet Size _____

Inlet Specifications _____

Outlet Size and Flange Rating _____

e) Flanged Valves

Inlet Size and Flange Rating _____

Outlet Size and Flange Rating _____

f) Other Type Connections Other Than

Buttweld or Flange _____

g) Special Codes or Standards

Valve Supplemental Data

- | | | |
|----|--------------------------------|--|
| a) | Gag Required | |
| b) | Weathershield Required | |
| c) | Hydrostatic Test Plug Required | |
| d) | Special Cleaning | |
| e) | Special Boxing | |
| f) | Export Boxing | |
| g) | Special Painting | |



CONTROLS SUPPLY CHAIN

VALVES ACTUATORS INSTRUMENTATIONS