

# Series 6400/6600

Safety Valves for ASME Section I and VIII  
Boiler Applications





# Table of Contents

Introduction & Warranty .....IFC  
 Numbering System ..... 1  
 Bill of Materials..... 2-3

**Selection Tables**

6400 US Customary System Units ..... 4-5  
 6400 Metric System Units ..... 6-7

6600 US Customary System Units ..... 8  
 6600 Metric System Units ..... 9

**Capacity Tables, US Customary System Units**

Steam 3% Overpressure ..... 10  
 Steam 10% Overpressure..... 11

**Capacity Table, Metric System Units**

Steam 3% Overpressure ..... 12  
 Steam 10% Overpressure..... 13

Sizing Information..... 14  
 Dimensions & Weights..... 15  
 Conversion Factors ..... 16

# Introduction

Designed with the user in mind, Series 6400 and 6600 safety valves represent the most advanced technology in valves designed for use in intermediate power boiler and organic fluid vaporizer service. Built in conformance to Section I and Section VIII of the ASME Boiler and Pressure Vessel Code, all capacities are certified by The National Board of Boiler and Pressure Vessel Inspectors at 3% overpressure.

### Features Include:

- Full nozzle design for minimized maintenance
- Hardened conical disc for extended seat life
- Monel® or copper nickel alloy guides with long guiding ratio for reduced galling used on high temperature models
- Set pressure to 1500 psig, temperatures to 1000 °F
- Available in closed bonnet or exposed spring versions
- Dual blow down ring for more precise performance

### Warranty

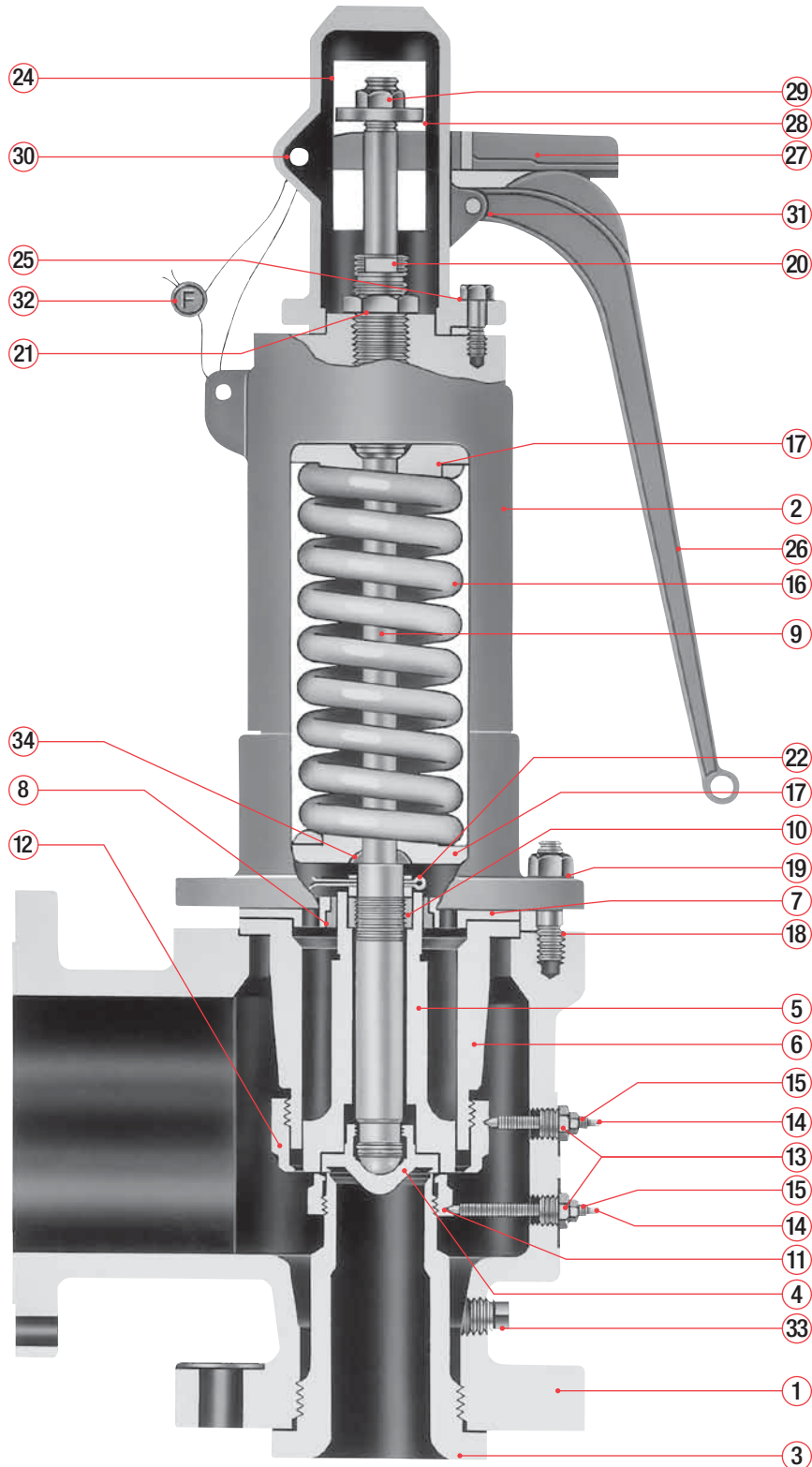
All products manufactured by Farris Engineering are warranted free of defects in material and workmanship when used within the range recommended for a period of one year after installation or eighteen months from delivery. When authorized, any defective product may be returned to the factory and if found defective will be repaired or replaced free of charge, solely at the discretion of Farris Engineering, ex-works our factory. No charge for labor or other expense incurred will be allowed, as the liability of Farris Engineering is measured by the refund price of the defective product only. All warranties are based on the product being used within the range recommended and does not cover damages or defects due to normal wear and tear, misuse, alteration or neglect. The purchaser shall determine the suitability of the product for use and assumes all risks and liabilities in connection therewith.

This warranty does not cover the performance of valves tested at site on test equipment that is not to the same technical standard as that used by the manufacturer.





# Series 6400/6600



6400 Series, L & M Orifices



Bill of Materials		
Item No.	Part Name	Material
1	Body (up to 800 °F) <sup>3</sup>	SA-216 GR. WCB Carbon Steel
	Body (801 to 1000 °F)	SA-217 GR. WC6 Alloy Steel (1 1/4 CR-1/2 Moly)
2	Open Bonnet (6400 Series)	SA-216 GR. WCB Carbon Steel
	Closed Bonnet (6600 Series) <sup>3</sup>	SA-216 GR. WCB Carbon Steel
3	Nozzle	316 Stainless Steel
4	Disc	Precipitation Hardened St. St.
5	Disc Holder	Precipitation Hardened St. St.
6	Sleeve Guide (Up to 800 °F) <sup>3</sup>	300 Series Stainless Steel
	Sleeve Guide (801 to 1000 °F)	Monel
7	Guide Plate <sup>1</sup>	300 Series Stainless Steel
8	Guide Bushing <sup>1</sup>	Monel
9	Stem	316 Stainless Steel
10	Stem Collar	316 Stainless Steel
11	Blow Down Ring-Lower	316 Stainless Steel
12	Blow Down Ring-Upper	316 Stainless Steel
13	Lock Screw (Blow Down Ring)	316 Stainless Steel
14	Lock Screw Stud (BDR)	316 Stainless Steel
15	Jam Nut, Lock Screw	Stainless Steel
16	Spring	Chrome Alloy, Rust Proofed
17	Spring Buttons	316 Stainless Steel
18	Body Stud	ASTM A193 Gr. B7 Alloy Steel
19	Hex Nut, Body	ASTM A194 GR. 2H Alloy Steel
20	Spring Adjusting Screw	Precipitation Hardened St. St.
21	Spring Adj. Scr. Jam Nut	316 Stainless Steel
22	Cotter Pin	Steel, Plttd.
23	Spring Pin (not shown)	Carbon Steel, Plttd.
24	Cap (6400 Series)	Iron
	Cap (6600 Series)	Steel
25	Cap Screw	Carbon Steel, Plttd.
26	Test Lever	Iron
27	Test Lever Fork	Iron
28	Stem Test Nut	316 Stainless Steel
29	Jam Nut, Stem	Stainless Steel
30	Round Head Rivet (Fork)	Steel
31	Round Head Rivet (Lever)	Steel
32	Wire Seal	St. St. Wire / Lead Seal
33	Pipe Plug, Body	Steel
34	Stem Shoulder	Precipitation Hardened St. St.
35	Pipe Plug, Bonnet (Not Shown)	Steel
36	Nameplate (Not Shown)	Stainless Steel

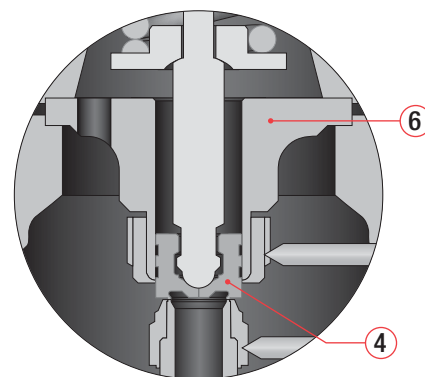


Fig. 1.3  
Internals for Orifices D, E, & F

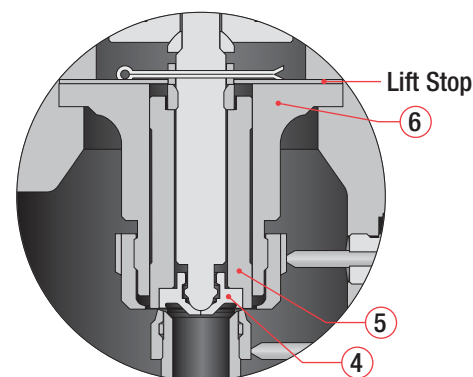


Fig. 1.4  
Internals for Orifice G

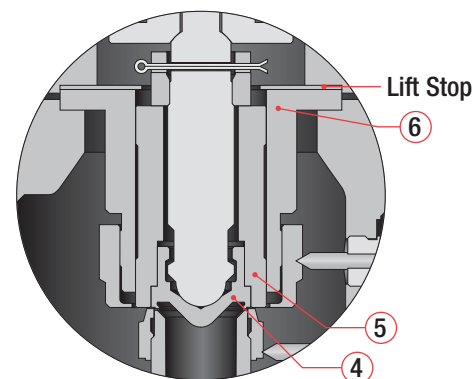


Fig. 1.5  
Internals for Orifices H & J

General Notes:

1. Guide plate and Guide bushing form a one piece assembly. Used on 2-1/2" to 4" inlet sizes only. No Bushing is used on valves up to 800 °F.
2. Gaskets (not shown above) are used on Series 6600 Closed Bonnet units only. Material is stainless steel.
3. 6600 Series only available to 800 °F (427 °C)



## Selection Table – Series 6400

US Customary System Units																
Orifice		Valve Size Inlet x Outlet	ANSI Flange Class		Type Number	Maximum Set Pressure, psig								Material		
Letter	Area sq. in.		Inlet RF	Outlet RF		300 °F	400 °F	500 °F	600 °F	700 °F	800 °F	900 °F	1000 °F	Body & Bonnet <sup>7</sup>	Spring	
D	0.150	1 x 2	300#	150#	64DA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64DA13-170	600	600	600	600	600	600	–	–			
			900#		64DA14-170	900	900	900	900	900	900	–	–			
			1500#		64DA15-170	1500	1500	1500	1500	1500	1500	–	–			
		1 x 2	300#	150#	64DA32-170	–	–	–	–	–	300	300	215	Chrome Moly Steel		
			600#		64DA33-170	–	–	–	–	–	600	600	430			
			900#		64DA34-170	–	–	–	–	–	900	900	650			
			1500#		64DA35-170	–	–	–	–	–	1500	1500	1080			
E	0.225	1 x 2	300#	150#	64EA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64EA13-170	600	600	600	600	600	600	–	–			
			900#		64EA14-170	900	900	900	900	900	900	–	–			
			1500#		64EA15-170	1500	1500	1500	1500	1500	1500	–	–			
		1 x 2	300#	150#	64EA32-170	–	–	–	–	–	300	300	215	Chrome Moly Steel		
			600#		64EA33-170	–	–	–	–	–	600	600	430			
			900#		64EA34-170	–	–	–	–	–	900	900	650			
			1500#		64EA35-170	–	–	–	–	–	1500	1500	1080			
F	0.371	1 1/2 x 2	300#	150#	64FA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64FA13-170	600	600	600	600	600	600	–	–			
			900#		64FA14-170	900	900	900	900	900	900	–	–			
			1500#		64FA15-170	1500	1500	1500	1500	1500	1500	–	–			
		1 1/2 x 2	300#	150#	64FA32-170	–	–	–	–	–	300	300	215	Chrome Moly Steel		
			600#		64FA33-170	–	–	–	–	–	600	600	430			
			900#		64FA34-170	–	–	–	–	–	900	900	650			
			1500#		64FA35-170	–	–	–	–	–	1500	1500	1080			
G	0.559	1 1/2 x 3	300#	150#	64GA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64GA13-170	600	600	600	600	600	600	–	–			
			900#		64GA14-170	900	900	900	900	900	900	–	–			
			1500#		64GA15-170	1500	1500	1500	1500	1500	1500	–	–			
		1 1/2 x 3	300#	150#	64GA32-170	–	–	–	–	–	300	300	215	Chrome Moly Steel		
			600#		64GA33-170	–	–	–	–	–	600	600	430			
			900#		64GA34-170	–	–	–	–	–	900	900	650			
			1500#		64GA35-170	–	–	–	–	–	1500	1500	1080			
H	0.873	1 1/2 x 3	300#	150#	64HA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64HA13-170	600	600	600	600	600	600	–	–			
			900#		64HA14-170	900	900	900	900	900	900	–	–			
			1500#		64HA15-170	1500	1500	1500	1500	1500	1500	–	–			
		1 1/2 x 3	300#	150#	64HA32-170	–	–	–	–	–	300	300	215	Chrome Moly Steel		
			600#		64HA33-170	–	–	–	–	–	600	600	430			
			900#		64HA34-170	–	–	–	–	–	900	900	650			
			1500#		64HA35-170	–	–	–	–	–	1500	1500	1080			
J	1.430	2 x 3	300#	150#	64JA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64JA13-170	600	600	600	600	600	600	600	–			–
		2 1/2 x 4	900#	150#	64JA14-170	900	900	900	900	900	900	900	–	–		Chrome Moly Steel
			1500#		64JA15-170	1500	1500	1500	1500	1500	1500	1500	–	–		
2 x 3	300#	150#	64JA32-170	–	–	–	–	–	–	300	300	215	Chrome Moly Steel			
	600#		64JA33-170	–	–	–	–	–	–	600	600	430				
2 1/2 x 4	900#	150#	64JA34-170	–	–	–	–	–	–	900	900	650	Chrome Moly Steel			
	1500#		64JA35-170	–	–	–	–	–	–	1500	1500	1080				

General Notes:

1. The 6400 Series comes standard with an open bonnet and plain lifting lever.
2. For optional test gag, change the last digit of the three digit type number suffix to "1". Example: 64GA13-171 and 66LA12-141.
3. On certain sizes 150#RF inlet flanges are available. Consult the Factory.
4. Available in open lever design only. No plain cap or packed lever construction.
5. For optional ring joint inlet, change the first digit of suffix to "9". Example: 64LA15-970.
6. Consult the Factory for set pressures beyond those listed above.
7. Bonnet is carbon steel through 1000 °F.

## Selection Table – Series 6400 continued

US Customary System Units															
Orifice		Valve Size Inlet x Outlet	ANSI Flange Class		Type Number	Maximum Set Pressure, psig								Material	
Letter	Area sq. in.		Inlet RF	Outlet RF		300 °F	400 °F	500 °F	600 °F	700 °F	800 °F	900 °F	1000 °F	Body & Bonnet?	Spring
K	2.042	2 1/2 x 4	300#	150#	64KA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		64KA13-170	600	600	600	600	600	600	–	–		
			900#		64KA14-170	900	900	900	900	900	900	–	–		
			1500#		64KA15-170	1500	1500	1500	1500	1500	1500	–	–		
	2 1/2 x 4	300#	64KA32-170	–	–	–	–	–	–	300	300	215	Chrome Moly Steel		
		600#	64KA33-170	–	–	–	–	–	–	600	600	430			
		900#	64KA34-170	–	–	–	–	–	–	900	900	650			
		1500#	64KA35-170	–	–	–	–	–	–	1500	1500	1080			
L	3.170	3 x 6	300#	150#	64LA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		64LA13-170	600	600	600	600	600	600	–	–		
			900#		64LA14-170	900	900	900	900	900	900	–	–		
			1500#		64LA15-170	1500	1500	1500	1500	1500	1500	–	–		
	3 x 6	300#	64LA32-170	–	–	–	–	–	–	300	300	215	Chrome Moly Steel		
		600#	64LA33-170	–	–	–	–	–	–	600	600	430			
		900#	64LA34-170	–	–	–	–	–	–	900	900	650			
		1500#	64LA35-170	–	–	–	–	–	–	1500	1500	1080			
M	4.000	3 x 6	300#	150#	64MA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		64MA13-170	600	600	600	600	600	600	–	–		
			900#		64MA14-170	900	900	900	900	900	900	–	–		
			1500#		64MA15-170	1500	1500	1500	1500	1500	1500	–	–		
	3 x 6	300#	64MA32-170	–	–	–	–	–	–	300	300	215	Chrome Moly Steel		
		600#	64MA33-170	–	–	–	–	–	–	600	600	430			
		900#	64MA34-170	–	–	–	–	–	–	900	900	650			
		1500#	64MA35-170	–	–	–	–	–	–	1500	1500	1080			
N	4.822	4 x 6	300#	150#	64NA12-170	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		64NA13-170	600	600	600	600	600	600	–	–		
			900#		64NA14-170	900	900	900	900	900	900	–	–		
			300#		64NA32-170	–	–	–	–	–	–	300	300		
	600#	64NA33-170	–	–	–	–	–	–	600	600	430				
	900#	64NA34-170	–	–	–	–	–	–	900	900	650				
	300#	64PA12-170	300	300	300	300	300	300	300	–	–	Carbon Steel	Chrome Alloy, Rust Proofed		
	600#	64PA13-170	600	600	600	600	600	600	600	–	–				
900#	64PA14-170	900	900	900	900	900	900	900	–	–					
300#	64PA32-170	–	–	–	–	–	–	–	300	300	215			Chrome Moly Steel	
600#	64PA33-170	–	–	–	–	–	–	–	600	600	430				
900#	64PA34-170	–	–	–	–	–	–	–	900	900	650				



## Selection Table – Series 6400

Metric System Units																
Orifice		Valve Size Inlet x Outlet	ANSI Flange Class		Type Number	Maximum Set Pressure, barg								Material		
Letter	Area mm <sup>2</sup>		Inlet RF	Outlet RF		149 °C	204 °C	260 °C	316 °C	371 °C	427 °C	482 °C	538 °C	Body & Bonnet <sup>7</sup>	Spring	
D	97	1 x 2	300#	150#	64DA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64DA13-170	41.3	41.3	41.3	41.3	41.3	41.3	–	–			
			900#		64DA14-170	62.0	62.0	62.0	62.0	62.0	62.0	–	–			
			1500#		64DA15-170	103	103	103	103	103	103	–	–			
	97	1 x 2	300#	150#	64DA32-170	–	–	–	–	–	20.7	20.7	14.9	Chrome Moly Steel	Chrome Alloy, Rust Proofed	
			600#		64DA33-170	–	–	–	–	–	41.3	41.3	29.8			
			900#		64DA34-170	–	–	–	–	–	62.0	62.0	44.7			
			1500#		64DA35-170	–	–	–	–	–	103	103	74.5			
E	145	1 x 2	300#	150#	64EA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64EA13-170	41.3	41.3	41.3	41.3	41.3	41.3	–	–			
			900#		64EA14-170	62.0	62.0	62.0	62.0	62.0	62.0	–	–			
			1500#		64EA15-170	103	103	103	103	103	103	–	–			
	145	1 x 2	300#	150#	64EA32-170	–	–	–	–	–	20.7	20.7	14.9	Chrome Moly Steel	Chrome Alloy, Rust Proofed	
			600#		64EA33-170	–	–	–	–	–	41.3	41.3	29.8			
			900#		64EA34-170	–	–	–	–	–	62.0	62.0	44.7			
			1500#		64EA35-170	–	–	–	–	–	103	103	74.5			
F	239	1 1/2 x 2	300#	150#	64FA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64FA13-170	41.3	41.3	41.3	41.3	41.3	41.3	–	–			
			900#		64FA14-170	62.0	62.0	62.0	62.0	62.0	62.0	–	–			
			1500#		64FA15-170	103	103	103	103	103	103	–	–			
	239	1 1/2 x 2	300#	150#	64FA32-170	–	–	–	–	–	20.7	20.7	14.9	Chrome Moly Steel	Chrome Alloy, Rust Proofed	
			600#		64FA33-170	–	–	–	–	–	41.3	41.3	29.8			
			900#		64FA34-170	–	–	–	–	–	62.0	62.0	44.7			
			1500#		64FA35-170	–	–	–	–	–	103	103	74.5			
G	361	1 1/2 x 3	300#	150#	64GA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64GA13-170	41.3	41.3	41.3	41.3	41.3	41.3	–	–			
			900#		64GA14-170	62.0	62.0	62.0	62.0	62.0	62.0	–	–			
			1500#		64GA15-170	103	103	103	103	103	103	–	–			
	361	1 1/2 x 3	300#	150#	64GA32-170	–	–	–	–	–	20.7	20.7	14.9	Chrome Moly Steel	Chrome Alloy, Rust Proofed	
			600#		64GA33-170	–	–	–	–	–	41.3	41.3	29.8			
			900#		64GA34-170	–	–	–	–	–	62.0	62.0	44.7			
			1500#		64GA35-170	–	–	–	–	–	103	103	74.5			
H	563	1 1/2 x 3	300#	150#	64HA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64HA13-170	41.3	41.3	41.3	41.3	41.3	41.3	–	–			
			900#		64HA14-170	62.0	62.0	62.0	62.0	62.0	62.0	–	–			
			1500#		64HA15-170	103	103	103	103	103	103	–	–			
	563	1 1/2 x 3	300#	150#	64HA32-170	–	–	–	–	–	20.7	20.7	14.9	Chrome Moly Steel	Chrome Alloy, Rust Proofed	
			600#		64HA33-170	–	–	–	–	–	41.3	41.3	29.8			
			900#		64HA34-170	–	–	–	–	–	62.0	62.0	44.7			
			1500#		64HA35-170	–	–	–	–	–	103	103	74.5			
J	923	2 x 3	300#	150#	64JA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		64JA13-170	41.3	41.3	41.3	41.3	41.3	41.3	41.3	–			–
		2 1/2 x 4	900#	150#	64JA14-170	62.0	62.0	62.0	62.0	62.0	62.0	62.0	–			–
			1500#		64JA15-170	103	103	103	103	103	103	103	–			–
	923	2 x 3	300#	150#	64JA32-170	–	–	–	–	–	20.7	20.7	14.9	Chrome Moly Steel	Chrome Alloy, Rust Proofed	
			600#		64JA33-170	–	–	–	–	–	41.3	41.3	29.8			
		2 1/2 x 4	900#	150#	64JA34-170	–	–	–	–	–	62.0	62.0	44.7			
			1500#		64JA35-170	–	–	–	–	–	103	103	74.5			

General Notes:

1. The 6400 Series comes standard with an open yoke and plain lifting lever.
2. For optional test gag, change the last digit of the three digit type number suffix to "1". Example: 64GA13-171 and 66LA12-141.
3. On certain sizes 150#RF inlet flanges are available. Consult the Factory.
4. Available in open lever design only. No plain cap or packed lever construction.
5. For optional ring joint inlet, change the first digit of suffix to "9". Example: 64LA15-970.
6. Consult the Factory for set pressures beyond those listed above.
7. Bonnet is carbon steel through 538 °C.



## Selection Table – Series 6400 continued

Metric System Units															
Orifice		Valve Size Inlet x Outlet	ANSI Flange Class		Type Number	Maximum Set Pressure, barg								Material	
Letter	Area mm <sup>2</sup>		Inlet RF	Outlet RF		149 °C	204 °C	260 °C	316 °C	371 °C	427 °C	482 °C	538 °C	Body & Bonnet <sup>7</sup>	Spring
K	1317	2 1/2 x 4	300#	150#	64KA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		64KA13-170	41.3	41.3	41.3	41.3	41.3	41.3	–	–		
			900#		64KA14-170	62.0	62.0	62.0	62.0	62.0	62.0	–	–		
			1500#		64KA15-170	103	103	103	103	103	103	–	–		
	2 1/2 x 4	300#	64KA32-170	–	–	–	–	–	–	20.7	20.7	14.9	Chrome Moly Steel		
		600#	64KA33-170	–	–	–	–	–	–	41.3	41.3	29.8			
		900#	64KA34-170	–	–	–	–	–	–	62.0	62.0	44.7			
		1500#	64KA35-170	–	–	–	–	–	–	103	103	74.5			
L	2045	3 x 6	300#	150#	64LA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		64LA13-170	41.3	41.3	41.3	41.3	41.3	41.3	–	–		
			900#		64LA14-170	62.0	62.0	62.0	62.0	62.0	62.0	–	–		
			1500#		64LA15-170	103	103	103	103	103	103	–	–		
	3 x 6	300#	64LA32-170	–	–	–	–	–	–	20.7	20.7	14.9	Chrome Moly Steel		
		600#	64LA33-170	–	–	–	–	–	–	41.3	41.3	29.8			
		900#	64LA34-170	–	–	–	–	–	–	62.0	62.0	44.7			
		1500#	64LA35-170	–	–	–	–	–	–	103	103	74.5			
M	2581	3 x 6	300#	150#	64MA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		64MA13-170	41.3	41.3	41.3	41.3	41.3	41.3	–	–		
			900#		64MA14-170	62.0	62.0	62.0	62.0	62.0	62.0	–	–		
			1500#		64MA15-170	103	103	103	103	103	103	–	–		
	3 x 6	300#	64MA32-170	–	–	–	–	–	–	20.7	20.7	14.9	Chrome Moly Steel		
		600#	64MA33-170	–	–	–	–	–	–	41.3	41.3	29.8			
		900#	64MA34-170	–	–	–	–	–	–	62.0	62.0	44.7			
		1500#	64MA35-170	–	–	–	–	–	–	103	103	74.5			
N	3111	4 x 6	300#	150#	64NA12-170	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		64NA13-170	41.3	41.3	41.3	41.3	41.3	41.3	–	–		
			900#		64NA14-170	62.0	62.0	62.0	62.0	62.0	62.0	–	–		
			300#		64NA32-170	–	–	–	–	–	–	20.7	20.7		
	600#	64NA33-170	–	–	–	–	–	–	41.3	41.3	29.8				
	900#	64NA34-170	–	–	–	–	–	–	62.0	62.0	44.7				
	300#	64PA12-170	20.7	20.7	20.7	20.7	20.7	20.7	20.7	–	–	Carbon Steel	Chrome Alloy, Rust Proofed		
	600#	64PA13-170	41.3	41.3	41.3	41.3	41.3	41.3	41.3	–	–				
900#	64PA14-170	62.0	62.0	62.0	62.0	62.0	62.0	62.0	–	–					
300#	64PA32-170	–	–	–	–	–	–	–	20.7	20.7	14.9			Chrome Moly Steel	
600#	64PA33-170	–	–	–	–	–	–	–	41.3	41.3	29.8				
900#	64PA34-170	–	–	–	–	–	–	–	62.0	62.0	44.7				



## Selection Table – Series 6600

US Customary System Units														
Orifice		Valve Size Inlet x Outlet	ANSI Flange Class		Type Number	Maximum Set Pressure, psig						Max. Back Press. psig at 100 °F	Material	
Letter	Area sq. in.		Inlet RF	Outlet RF		300 °F	400 °F	500 °F	600 °F	700 °F	800 °F		Body & Bonnet	Spring
D	0.150	1 x 2	300#	150#	66DA12-140	300	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66DA13-140	600	600	600	600	600	600			
			900#		66DA14-140	900	900	900	900	900	900			
			1500#		66DA15-140	1500	1500	1500	1500	1500	1500			
E	0.225	1 x 2	300#	150#	66EA12-140	300	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66EA13-140	600	600	600	600	600	600			
			900#		66EA14-140	900	900	900	900	900	900			
			1500#		66EA15-140	1500	1500	1500	1500	1500	1500			
F	0.371	1 1/2 x 2	300#	150#	66FA12-140	300	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66FA13-140	600	600	600	600	600	600			
			900#		66FA14-140	900	900	900	900	900	900			
			1500#		66FA15-140	1500	1500	1500	1500	1500	1500			
G	0.559	1 1/2 x 3	300#	150#	66GA12-140	300	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66GA13-140	600	600	600	600	600	600			
			900#		66GA14-140	900	900	900	900	900	900			
			1500#		66GA15-140	1500	1500	1500	1500	1500	1500			
H	0.873	1 1/2 x 3	300#	150#	66HA12-140	300	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66HA13-140	600	600	600	600	600	600			
			900#		66HA14-140	900	900	900	900	900	900			
			1500#		66HA15-140	1500	1500	1500	1500	1500	1500			
J	1.430	2 x 3	300#	150#	66JA12-140	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		66JA13-140	600	600	600	600	600				600
		2 1/2 x 4	900#	150#	66JA14-140	900	900	900	900	900				900
			1500#		66JA15-140	1500	1500	1500	1500	1500				1500
K	2.042	2 1/2 x 4	300#	150#	66KA12-140	300	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66KA13-140	600	600	600	600	600	600			
			900#		66KA14-140	900	900	900	900	900	900			
			1500#		66KA15-140	1500	1500	1500	1500	1500	1500			
L	3.170	3 x 6	300#	150#	66LA12-140	300	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66LA13-140	600	600	600	600	600	600			
			900#		66LA14-140	900	900	900	900	900	900			
			1500#		66LA15-140	1500	1500	1500	1500	1500	1500			
M	4.000	3 x 6	300#	150#	66MA12-140	300	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66MA13-140	600	600	600	600	600	600			
			900#		66MA14-140	900	900	900	900	900	900			
			1500#		66MA15-140	1500	1500	1500	1500	1500	1500			
N	4.822	4 x 6	300#	150#	66NA12-140	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		66NA13-140	600	600	600	600	600				600
			900#		66NA14-140	900	900	900	900	900				900
P	7.087	4 x 6	300#	150#	66PA12-140	300	300	300	300	300	285	Carbon Steel	Chrome Alloy, Rust Proofed	
			600#		66PA13-140	600	600	600	600	600				600
			900#		66PA14-140	900	900	900	900	900				900

General Notes:

- 1 The 6600 Series comes standard with enclosed spring and packed lifting lever.
2. Optional cap constructions and accessories may be specified by changing the three digit type number suffix as shown to the right.
3. For organic fluid vaporizer service, add "D" to the type number and specify a plain screwed cap. Example: 66NA12D-120.
4. On certain sizes, 150#RF inlet flanges are available. Consult the Factory.
5. For optional ring joint inlet, change the first digit of suffix to "9". Example: 66EA15-920.
6. Consult the Factory for set pressures beyond those listed above.

Option	Suffix	
	No Gag	With Gag
Screwed Cap	-120	-121
Packed Lever	-140	-141

# Selection Table – Series 6600

Metric System Units														
Orifice		Valve Size Inlet x Outlet	ANSI Flange Class		Type Number	Maximum Set Pressure, barg						Max. Back Press. barg at 38 °C	Material	
Letter	Area mm <sup>2</sup>		Inlet RF	Outlet RF		149 °C	204 °C	260 °C	316 °C	371 °C	427 °C		Body & Bonnet	Spring
D	97	1 x 2	300#	150#	66DA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66DA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66DA14-140	62.0	62.0	62.0	62.0	62.0	62.0			
			1500#		66DA15-140	103	103	103	103	103	103			
E	145	1 x 2	300#	150#	66EA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66EA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66EA14-140	62.0	62.0	62.0	62.0	62.0	62.0			
			1500#		66EA15-140	103	103	103	103	103	103			
F	239	1 1/2 x 2	300#	150#	66FA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66FA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66FA14-140	62.0	62.0	62.0	62.0	62.0	62.0			
			1500#		66FA15-140	103	103	103	103	103	103			
G	361	1 1/2 x 3	300#	150#	66GA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66GA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66GA14-140	62.0	62.0	62.0	62.0	62.0	62.0			
			1500#		66GA15-140	103	103	103	103	103	103			
H	563	1 1/2 x 3	300#	150#	66HA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66HA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66HA14-140	62.0	62.0	62.0	62.0	62.0	62.0			
			1500#		66HA15-140	103	103	103	103	103	103			
J	923	2 x 3	150#	66JA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed	
		600#		66JA13-140	41.3	41.3	41.3	41.3	41.3	41.3				
		2 1/2 x 4	150#	66JA14-140	62.0	62.0	62.0	62.0	62.0	62.0				
		900#		66JA15-140	103	103	103	103	103	103				
K	1317	2 1/2 x 4	300#	150#	66KA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66KA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66KA14-140	62.0	62.0	62.0	62.0	62.0	62.0			
			1500#		66KA15-140	103	103	103	103	103	103			
L	2045	3 x 6	300#	150#	66LA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66LA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66LA14-140	62.0	62.0	62.0	62.0	62.0	62.0			
			1500#		66LA15-140	103	103	103	103	103	103			
M	2581	3 x 6	300#	150#	66MA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66MA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66MA14-140	62.0	62.0	62.0	62.0	62.0	62.0			
			1500#		66MA15-140	103	103	103	103	103	103			
N	3111	4 x 6	300#	150#	66NA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66NA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66NA14-140	62.0	62.0	62.0	62.0	62.0	62.0			
P	4572	4 x 6	300#	150#	66PA12-140	20.7	20.7	20.7	20.7	20.7	20.7	19.6	Carbon Steel	Chrome Alloy, Rust Proofed
			600#		66PA13-140	41.3	41.3	41.3	41.3	41.3	41.3			
			900#		66PA14-140	62.0	62.0	62.0	62.0	62.0	62.0			

**General Notes:**

- 1 The 6600 Series comes standard with enclosed spring and packed lifting lever.
2. Optional cap constructions and accessories may be specified by changing the three digit type number suffix as shown to the right.
3. For organic fluid vaporizer service, add "D" to the type number and specify a plain screwed cap. Example: 66NA12D-120.
4. On certain sizes, 150#RF inlet flanges are available. Consult the Factory.
5. For optional ring joint inlet, change the first digit of suffix to "9". Example: 66EA15-920.
6. Consult the Factory for set pressures beyond those listed above.

Option	Suffix	
	No Gag	With Gag
Screwed Cap	-120	-121
Packed Lever	-140	-141



# Steam Capacities – 6400 & 6600 Series: 3% Overpressure

US Customary System Units

ASME Pressure Vessel Code Section I, (V) Stamp: Capacities in Pounds per Hour at Saturation Temperature											
Set Pressure (psig)	Orifice Letter Designations & Areas, Square Inches										
	D	E	F	G	H	J	K	L	M	N	P
	0.150	0.225	0.371	0.559	0.873	1.430	2.042	3.170	4.000	4.822	7.087
15	210	315	519	783	1222	2003	2860	4440	5602	6754	9926
20	243	364	601	906	1415	2318	3311	5140	6486	7819	11492
40	375	563	929	1400	2187	3582	5116	7942	10021	12081	17755
60	508	762	1257	1894	2958	4846	6920	10743	13556	16342	24018
80	643	965	1591	2398	3745	6135	8761	13601	17162	20689	30407
100	780	1170	1929	2907	4540	7437	10620	16486	20803	25078	36858
120	916	1374	2267	3416	5334	8738	12478	19372	24444	29467	43309
140	1053	1579	2604	3924	6129	10040	14337	22257	28085	33856	49760
160	1189	1784	2942	4433	6924	11342	16196	25143	31726	38246	56211
180	1326	1989	3280	4942	7718	12643	18054	28028	35367	42635	62661
200	1462	2194	3618	5451	8513	13945	19913	30914	39008	47024	69112
220	1599	2399	3955	5960	9308	15247	21772	33799	42649	51413	75563
240	1735	2603	4293	6469	10102	16548	23631	36685	46290	55802	82014
260	1872	2808	4631	6977	10897	17850	25489	39570	49931	60192	88465
280	2008	3013	4968	7486	11692	19152	27348	42456	53572	64581	94916
300	2145	3218	5306	7995	12486	20453	29207	45341	57213	68970	101367
320	2282	3423	5644	8504	13281	21755	31066	48227	60854	73359	107818
340	2418	3627	5981	9013	14076	23057	32924	51112	64495	77749	114269
360	2555	3832	6319	9522	14870	24358	34783	53998	68136	82138	120720
380	2691	4037	6657	10030	15665	25660	36642	56883	71777	86527	127171
400	2828	4242	6995	10539	16460	26962	38501	59769	75418	90916	133622
420	2964	4447	7332	11048	17254	28263	40359	62654	79059	95306	140073
440	3101	4651	7670	11557	18049	29565	42218	65540	82700	99695	146524
460	3237	4856	8008	12066	18844	30867	44077	68425	86341	104084	152975
480	3374	5061	8345	12575	19638	32168	45936	71311	89982	108473	159426
500	3510	5266	8683	13083	20433	33470	47794	74196	93623	112863	165877
520	3647	5471	9021	13592	21227	34772	49653	77082	97264	117252	172328
540	3783	5675	9358	14101	22022	36073	51512	79967	100905	121641	178779
560	3920	5880	9696	14610	22817	37375	53370	82853	104546	126030	185230
580	4057	6085	10034	15119	23611	38677	55229	85738	108187	130419	191681
600	4193	6290	10372	15628	24406	39978	57088	88624	111828	134809	198132
620	4330	6495	10709	16136	25201	41280	58947	91509	115469	139198	204583
640	4466	6699	11047	16645	25995	42581	60805	94395	119110	143587	211033
660	4603	6904	11385	17154	26790	43883	62664	97280	122751	147976	217484
680	4739	7109	11722	17663	27585	45185	64523	100166	126392	152366	223935
700	4876	7314	12060	18172	28379	46486	66382	103051	130033	156755	230386
720	5012	7519	12398	18681	29174	47788	68240	105937	133674	161144	236837
740	5149	7723	12736	19189	29969	49090	70099	108822	137315	165533	243288
760	5285	7928	13073	19698	30763	50391	71958	111708	140956	169923	249739
780	5422	8133	13411	20207	31558	51693	73817	114593	144597	174312	256190
800	5558	8338	13749	20716	32353	52995	75675	117479	148238	178701	262641
820	5695	8543	14086	21225	33147	54296	77534	120364	151879	183090	269092
840	5832	8748	14424	21733	33942	55598	79393	123250	155520	187480	275543
860	5968	8952	14762	22242	34737	56900	81251	126135	159161	191869	281994
880	6105	9157	15099	22751	35531	58201	83110	129021	162802	196258	288445
900	6241	9362	15437	23260	36326	59503	84969	131906	166443	200647	294896
920	6378	9567	15775	23769	37120	60805	86828	134792	170084	-	-
940	6514	9772	16113	24278	37915	62106	88686	137677	173725	-	-
960	6651	9976	16450	24786	38710	63408	90545	140563	177366	-	-
980	6787	10181	16788	25295	39504	64710	92404	143448	181007	-	-
1000	6924	10386	17126	25804	40299	66011	94263	146334	184648	-	-
1100	7607	11410	18814	28348	44272	72520	103556	160761	202853	-	-
1200	8289	12434	20503	30892	48246	79028	112850	175189	221058	-	-
1300	8972	13458	22191	33437	52219	85536	122144	189616	239263	-	-
1400	9655	14482	23880	35981	56192	92045	131437	204044	257468	-	-
1500	10337	15506	25568	38525	60165	98553	140731	218471	275673	-	-

# Steam Capacities – 6400 & 6600 Series: 10% Overpressure

US Customary System Units

ASME Pressure Vessel Code Section VIII, (UV) Stamp: Capacities in pounds per Hour at Saturation Temperature											
Set Pressure (psig)	Orifice Letter Designations & Areas, Square Inches										
	D	E	F	G	H	J	K	L	M	N	P
	0.150	0.225	0.371	0.559	0.873	1.430	2.042	3.170	4.000	4.822	7.087
15	216	325	536	807	1261	2066	2950	4580	5779	6967	10240
20	249	374	618	931	1454	2382	3401	5280	6663	8032	11805
40	389	583	962	1449	2264	3709	5296	8222	10375	12507	18382
60	534	802	1322	1993	3113	5099	7281	11303	14263	17194	25271
80	680	1021	1683	2536	3961	6489	9266	14385	18152	21882	32160
100	826	1239	2044	3080	4810	7879	11251	17467	22040	26569	39050
120	972	1458	2404	3623	5658	9269	13236	20548	25928	31257	45939
140	1118	1677	2765	4166	6507	10659	15221	23630	29817	35944	52828
160	1263	1895	3126	4710	7356	12049	17206	26711	33705	40632	59718
180	1409	2114	3486	5253	8204	13439	19191	29793	37594	45319	66607
200	1555	2333	3847	5797	9053	14830	21176	32875	41482	50007	73497
220	1701	2552	4208	6340	9902	16220	23162	35956	45371	54694	80386
240	1847	2770	4568	6884	10750	17610	25147	39038	49259	59382	87275
260	1993	2989	4929	7427	11599	19000	27132	42119	53148	64070	94165
280	2138	3208	5290	7970	12448	20390	29117	45201	57036	68757	101054
300	2284	3427	5650	8514	13296	21780	31102	48283	60925	73445	107943
320	2430	3645	6011	9057	14145	23170	33087	51364	64813	78132	114833
340	2576	3864	6372	9601	14994	24560	35072	54446	68701	82820	121722
360	2722	4083	6732	10144	15842	25951	37057	57527	72590	87507	128612
380	2867	4301	7093	10687	16691	27341	39042	60609	76478	92195	135501
400	3013	4520	7454	11231	17540	28731	41027	63691	80367	96882	142390
420	3159	4739	7814	11774	18388	30121	43012	66772	84255	101570	149280
440	3305	4958	8175	12318	19237	31511	44997	69854	88144	106257	156169
460	3451	5176	8536	12861	20086	32901	46982	72935	92032	110945	163058
480	3597	5395	8896	13404	20934	34291	48967	76017	95921	115632	169948
500	3742	5614	9257	13948	21783	35681	50952	79099	99809	120320	176837
520	3888	5833	9617	14491	22632	37072	52937	82180	103698	125008	183727
540	4034	6051	9978	15035	23480	38462	54922	85262	107586	129695	190616
560	4180	6270	10339	15578	24329	39852	56907	88343	111474	134383	197505
580	4326	6489	10699	16122	25178	41242	58893	91425	115363	139070	204395
600	4471	6707	11060	16665	26026	42632	60878	94507	119251	143758	211284
620	4617	6926	11421	17208	26875	44022	62863	97588	123140	148445	218173
640	4763	7145	11781	17752	27724	45412	64848	100670	127028	153133	225063
660	4909	7364	12142	18295	28572	46802	66833	103751	130917	157820	231952
680	5055	7582	12503	18839	29421	48193	68818	106833	134805	162508	238841
700	5201	7801	12863	19382	30269	49583	70803	109915	138694	167195	245731
720	5346	8020	13224	19925	31118	50973	72788	112996	142582	171883	252620
740	5492	8238	13585	20469	31967	52363	74773	116078	146471	176570	259510
760	5638	8457	13945	21012	32815	53753	76758	119159	150359	181258	266399
780	5784	8676	14306	21556	33664	55143	78743	122241	154247	185945	273288
800	5930	8895	14667	22099	34513	56533	80728	125323	158136	190633	280178
820	6075	9113	15027	22642	35361	57923	82713	128404	162024	195321	287067
840	6221	9332	15388	23186	36210	59314	84698	131486	165913	200008	293956
860	6367	9551	15749	23729	37059	60704	86683	134567	169801	204696	300846
880	6513	9770	16109	24273	37907	62094	88668	137649	173690	209383	307735
900	6659	9988	16470	24816	38756	63484	90653	140731	177578	214071	314625
920	6805	10207	16831	25360	39605	64874	92638	143812	181467	–	–
940	6950	10426	17191	25903	40453	66264	94624	146894	185355	–	–
960	7096	10644	17552	26446	41302	67654	96609	149975	189244	–	–
980	7242	10863	17913	26990	42151	69044	98594	153057	193132	–	–
1000	7388	11082	18273	27533	42999	70435	100579	156139	197020	–	–
1100	8117	12176	20076	30250	47243	77385	110504	171547	216463	–	–
1200	8846	13269	21880	32967	51486	84336	120429	186955	235905	–	–
1300	9575	14363	23683	35684	55729	91286	130355	202363	255347	–	–
1400	10304	15456	25486	38401	59972	98237	140280	217771	274790	–	–
1500	11033	16550	27290	41118	64216	105188	150205	233179	294232	–	–



# Steam Capacities – 6400 & 6600 Series: 3% Overpressure

Metric System Units

ASME Pressure Vessel Code Section I, (V) Stamp: Capacities in Kilograms per Hour at Saturation Temperature											
Set Pressure (barg)	Orifice Letter Designations & Areas, sq. mm										
	D	E	F	G	H	J	K	L	M	N	P
	97	145	239	361	563	923	1317	2045	2581	3111	4572
1	93	141	232	349	546	894	1277	1983	2502	3016	4433
2	137	206	340	512	800	1310	1871	2905	3666	4419	6495
3	181	271	448	675	1054	1726	2465	3827	4829	5822	8557
4	225	337	556	837	1308	2142	3060	4750	5993	7225	10618
5	269	403	665	1002	1565	2563	3661	5683	7171	8645	12705
6	313	470	776	1169	1827	2992	4272	6633	8369	10089	14829
7	359	538	887	1337	2088	3421	4884	7582	9568	11534	16952
8	404	606	998	1505	2350	3849	5496	8532	10767	12979	19076
9	449	673	1110	1672	2611	4277	6108	9482	11965	14424	21199
10	494	740	1221	1839	2873	4706	6720	10432	13163	15869	23323
11	538	808	1332	2007	3134	5134	7332	11382	14362	17313	25446
12	583	875	1443	2175	3396	5563	7943	12332	15561	18758	27570
13	628	943	1554	2342	3657	5991	8555	13281	16759	20203	29693
14	673	1010	1665	2509	3919	6420	9167	14231	17958	21648	31816
15	718	1077	1777	2677	4181	6848	9779	15181	19156	23093	33940
16	763	1145	1888	2845	4442	7277	10391	16131	20355	24537	36063
17	808	1212	1999	3012	4704	7705	11003	17081	21553	25982	38187
18	853	1280	2110	3179	4966	8134	11614	18031	22752	27427	40311
19	898	1347	2221	3347	5227	8562	12226	18980	23950	28872	42434
20	943	1414	2332	3514	5489	8990	12838	19930	25149	30317	44558
21	988	1482	2444	3682	5750	9419	13450	20880	26347	31762	46681
22	1033	1549	2555	3849	6012	9848	14062	21830	27546	33207	48804
23	1078	1617	2666	4017	6273	10276	14674	22780	28744	34651	50928
24	1123	1684	2777	4184	6535	10705	15286	23730	29943	36096	53051
25	1168	1751	2888	4352	6796	11133	15897	24679	31141	37541	55175
26	1212	1819	2999	4519	7058	11561	16509	25629	32340	38986	57298
27	1257	1887	3110	4687	7320	11990	17121	26579	33538	40431	59422
28	1302	1954	3221	4854	7581	12418	17733	27529	34737	41875	61545
29	1347	2021	3333	5022	7843	12847	18345	28479	35936	43320	63669
30	1392	2088	3444	5189	8104	13275	18957	29429	37134	44765	65792
31	1437	2156	3555	5357	8366	13704	19569	30378	38332	46210	67916
32	1482	2224	3666	5524	8627	14132	20181	31328	39531	47655	70039
33	1527	2291	3778	5692	8889	14561	20792	32278	40730	49099	72163
34	1572	2358	3889	5859	9150	14989	21404	33228	41928	50544	74286
35	1617	2426	4000	6027	9412	15417	22016	34178	43126	51989	76410
36	1662	2493	4111	6194	9674	15846	22628	35128	44325	53434	78533
37	1707	2561	4222	6362	9935	16275	23240	36078	45524	54879	80656
38	1752	2628	4333	6529	10197	16703	23852	37027	46722	56324	82780
39	1797	2695	4444	6696	10459	17132	24464	37977	47921	57768	84903
40	1842	2763	4555	6864	10720	17560	25075	38927	49119	59213	87027
41	1887	2830	4667	7032	10982	17988	25687	39877	50318	60658	89151
42	1931	2898	4778	7199	11243	18417	26299	40827	51516	62103	91274
43	1977	2965	4889	7366	11505	18845	26911	41777	52715	63548	93398
44	2022	3032	5000	7534	11766	19274	27523	42726	53913	64992	95521
45	2067	3100	5112	7702	12028	19702	28135	43676	55112	66437	97644
46	2112	3167	5223	7869	12289	20131	28746	44626	56310	67882	99768
47	2156	3235	5334	8037	12551	20559	29358	45575	57509	69327	101891
48	2201	3302	5445	8204	12813	20988	29970	46525	58707	70772	104015
49	2246	3369	5556	8372	13074	21416	30582	47475	59906	72217	106138
50	2291	3437	5667	8539	13336	21844	31194	48425	61104	73661	108262
52	2381	3572	5890	8874	13859	22702	32417	50325	63501	76551	112509
54	2471	3706	6112	9209	14382	23559	33641	52224	65899	79441	116756
56	2561	3842	6334	9544	14905	24415	34865	54124	68295	82330	121003
58	2651	3976	6556	9879	15428	25272	36088	56024	70693	85220	125250
60	2741	4111	6779	10214	15952	26129	37312	57923	73089	88110	129496
62	2830	4246	7001	10549	16475	26986	38536	59823	75487	90999	133744
64	2920	4381	7224	10884	16998	27843	39759	61723	77884	-	-
66	3010	4516	7446	11219	17521	28700	40983	63622	80281	-	-
68	3100	4650	7668	11554	18044	29557	42207	65522	82678	-	-
70	3190	4785	7890	11889	18567	30414	43430	67422	85075	-	-
72	3280	4920	8113	12224	19091	31271	44654	69321	87472	-	-
74	3370	5055	8335	12559	19614	32128	45878	71221	89869	-	-
76	3460	5190	8558	12894	20137	32985	47102	73121	92266	-	-
78	3549	5324	8780	13229	20660	33842	48325	75020	94663	-	-
80	3640	5460	9002	13564	21183	34699	49549	76920	97060	-	-
85	3864	5797	9558	14401	22491	36841	52608	81669	103052	-	-
90	4089	6134	10114	15239	23799	38983	55668	86418	109045	-	-
95	4314	6471	10670	16076	25107	41126	58727	91167	115038	-	-
100	4538	6808	11225	16914	26414	43268	61786	95916	121030	-	-
103	4673	7010	11559	17416	27199	44553	63621	98766	124626	-	-

# Steam Capacities – 6400 & 6600 Series: 10% Overpressure

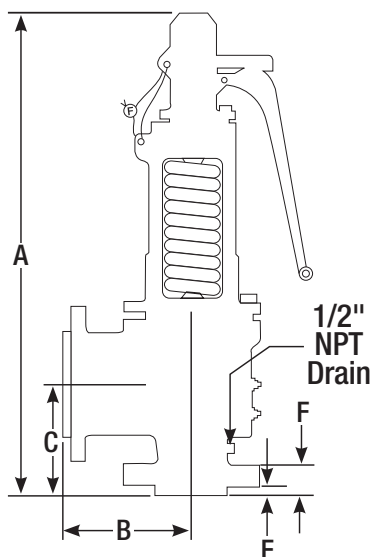
Metric System Units

ASME Pressure Vessel Code Section VIII, (UV) Stamp: Capacities in Kilograms per Hour at Saturation Temperature											
Set Pressure (barg)	Orifice Letter Designations & Areas, sq. mm										
	D	E	F	G	H	J	K	L	M	N	P
	97	145	239	361	563	923	1317	2045	2581	3111	4572
1	97	145	240	361	563	923	1318	2047	2582	3113	4575
2	140	210	347	523	817	1339	1912	2969	3746	4516	6637
3	188	282	465	701	1095	1794	2561	3977	5018	6050	8891
4	236	354	584	880	1374	2252	3215	4991	6298	7592	11159
5	284	426	703	1059	1654	2709	3869	6006	7578	9136	13427
6	332	498	821	1238	1933	3167	4522	7020	8858	10679	15695
7	380	570	940	1417	2213	3624	5176	8035	10138	12221	17963
8	428	642	1059	1595	2492	4082	5829	9049	11418	13764	20230
9	476	714	1178	1774	2771	4540	6482	10063	12698	15308	22498
10	524	786	1296	1953	3050	4997	7136	11077	13978	16851	24766
11	572	858	1415	2132	3330	5455	7789	12092	15258	18393	27034
12	620	930	1534	2311	3609	5912	8442	13106	16538	19937	29301
13	668	1002	1652	2490	3889	6370	9096	14121	17818	21480	31569
14	716	1074	1771	2669	4168	6828	9749	15135	19098	23022	33837
15	764	1146	1890	2848	4447	7285	10403	16150	20378	24566	36105
16	812	1218	2009	3026	4727	7742	11056	17164	21658	26109	38373
17	860	1290	2127	3206	5006	8200	11710	18178	22938	27651	40640
18	908	1362	2246	3384	5285	8658	12363	19193	24218	29195	42908
19	956	1434	2365	3563	5565	9116	13017	20207	25498	30738	45176
20	1004	1506	2483	3742	5844	9573	13670	21221	26778	32280	47444
21	1052	1578	2602	3921	6124	10030	14323	22236	28058	33824	49711
22	1100	1650	2721	4100	6403	10488	14977	23250	29338	35367	51979
23	1148	1722	2840	4279	6682	10946	15630	24264	30618	36910	54247
24	1196	1794	2958	4458	6961	11403	16284	25279	31898	38453	56515
25	1244	1866	3077	4636	7241	11861	16937	26293	33178	39996	58782
26	1292	1938	3196	4815	7520	12318	17591	27308	34458	41539	61050
27	1340	2010	3314	4994	7800	12776	18244	28322	35738	43082	63318
28	1388	2082	3433	5173	8079	13234	18897	29337	37017	44625	65586
29	1436	2154	3552	5352	8358	13691	19551	30351	38297	46168	67854
30	1484	2226	3671	5531	8637	14149	20204	31365	39578	47711	70122
31	1532	2298	3789	5709	8917	14606	20857	32379	40858	49254	72390
32	1580	2370	3908	5888	9196	15064	21511	33394	42138	50797	74657
33	1628	2442	4027	6067	9476	15522	22165	34408	43417	52340	76925
34	1676	2514	4145	6246	9755	15979	22818	35423	44697	53883	79193
35	1724	2586	4264	6425	10035	16437	23472	36437	45977	55426	81461
36	1772	2658	4383	6604	10314	16894	24125	37451	47257	56969	83728
37	1820	2730	4502	6783	10593	17352	24778	38466	48537	58512	85996
38	1868	2802	4620	6962	10872	17810	25432	39480	49818	60055	88264
39	1916	2874	4739	7141	11152	18267	26085	40495	51097	61598	90532
40	1964	2946	4858	7320	11431	18725	26738	41509	52377	63141	92800
41	2012	3018	4976	7498	11711	19182	27392	42523	53657	64684	95067
42	2060	3090	5095	7677	11990	19640	28045	43538	54937	66227	97335
43	2108	3162	5214	7856	12269	20098	28699	44552	56217	67770	99603
44	2156	3234	5333	8035	12548	20555	29352	45566	57497	69313	101871
45	2204	3306	5451	8214	12828	21013	30006	46581	58777	70856	104138
46	2252	3378	5570	8393	13107	21470	30659	47595	60057	72399	106406
47	2300	3450	5689	8572	13387	21928	31312	48610	61337	73942	108674
48	2348	3522	5807	8750	13666	22386	31966	49624	62617	75485	110942
49	2396	3594	5926	8930	13945	22843	32619	50639	63897	77028	113210
50	2444	3666	6045	9108	14225	23301	33273	51653	65177	78571	115477
52	2540	3810	6282	9466	14783	24216	34580	53681	67737	81657	120013
54	2636	3954	6520	9824	15342	25131	35887	55710	70297	84743	124549
56	2732	4098	6757	10182	15901	26046	37193	57739	72857	87829	129084
58	2828	4242	6995	10539	16459	26962	38500	59768	75417	90915	133620
60	2924	4386	7232	10897	17018	27876	39807	61797	77977	94001	138156
62	3020	4530	7469	11255	17577	28792	41114	63825	80537	97087	142691
64	3116	4674	7707	11613	18136	29707	42421	65854	83097	-	-
66	3212	4818	7944	11971	18694	30622	43727	67883	85656	-	-
68	3308	4962	8182	12328	19253	31537	45034	69912	88217	-	-
70	3404	5106	8419	12686	19812	32452	46341	71941	90776	-	-
72	3500	5250	8657	13044	20370	33368	47648	73969	93336	-	-
74	3596	5394	8894	13401	20929	34283	48955	75998	95896	-	-
76	3692	5538	9131	13759	21488	35198	50262	78026	98456	-	-
78	3788	5682	9369	14117	22047	36113	51569	80055	101016	-	-
80	3884	5826	9606	14474	22605	37028	52876	82084	103576	-	-
85	4124	6186	10200	15369	24002	39316	56143	87156	109976	-	-
90	4364	6546	10794	16263	25399	41604	59410	92228	116376	-	-
95	4604	6906	11387	17158	26796	43892	62677	97300	122776	-	-
100	4844	7266	11981	18052	28193	46180	65944	102372	129176	-	-
103	4988	7482	12337	18589	29030	47553	67904	105415	133015	-	-





# Dimensions & Weights



Valve Size Inlet x Outlet	Type Number	ANSI Flange Class		US Standard Dimensions (inches)					Approx. Weight Lbs.	Metric Dimensions (millimeters)					Approx. Weight kg.
		Inlet RF	Outlet RF	A	B	C	E	F		A	B	C	E	F	
1 x 2	64DA12-170	300#	150#	18 7/8	4 1/2	4 1/8	1/2	1 1/4	42	480	115	105	13	32	20
	64DA13-170	600#			4 1/2	4 1/8	1/2	1 1/4	42		115	105	13	32	20
	64DA14-170	900#			4 1/2	4 1/8	1/2	1 11/16	48		115	105	13	43	22
	64DA15-170	1500#			4 1/2	4 1/8	1/2	1 11/16	48		115	105	13	43	22
1 x 2	64EA12-170	300#	150#	18 7/8	4 1/2	4 1/8	1/2	1 1/4	42	480	115	105	13	32	20
	64EA13-170	600#			4 1/2	4 1/8	1/2	1 1/4	42		115	105	13	32	20
	64EA14-170	900#			4 1/2	4 1/8	1/2	1 11/16	48		115	105	13	43	22
	64EA15-170	1500#			4 1/2	4 1/8	1/2	1 11/16	48		115	105	13	43	22
1 1/2 x 2	64FA12-170	300#	150#	22 3/4	6	4 7/8	11/16	1 5/8	50	578	153	124	18	42	23
	64FA13-170	600#			6	4 7/8	11/16	1 5/8	50		153	124	18	42	23
	64FA14-170	900#			6	4 7/8	11/16	2	60		153	124	18	51	28
	64FA15-170	1500#			6	4 7/8	11/16	2	60		153	124	18	51	28
1 1/2 x 3	64GA12-170	300#	150#	22 7/8	5 1/8	5 1/8	11/16	1 5/8	60	582	131	131	18	42	28
	64GA13-170	600#			5 1/8	5 1/8	11/16	1 5/8	60		131	131	18	42	28
	64GA14-170	900#			5 1/8	5 1/8	11/16	2	60		131	131	18	51	28
	64GA15-170	1500#			5 1/8	5 1/8	11/16	2	85		131	131	18	51	39
1 1/2 x 3	64HA12-170	300#	150#	22 7/8	5 1/8	5 1/8	11/16	1 5/8	70	582	131	131	18	42	32
	64HA13-170	600#			5 1/8	5 1/8	11/16	1 5/8	70		131	131	18	42	32
	64HA14-170	900#			5 1/8	5 1/8	11/16	2	70		131	131	18	51	32
	64HA15-170	1500#			5 1/8	5 1/8	11/16	2	85		131	131	18	51	39
2 x 3	64JA12-170	300#	150#	23 7/8	6 3/8	6 1/16	11/16	1 3/4	70	607	162	154	18	45	32
	64JA13-170	600#			6 3/8	6 1/16	11/16	1 3/4	70		162	154	18	45	32
2 1/2 x 4	64JA14-170	900#	150#	33 3/8	6 3/4	6 1/8	11/16	2 3/8	70	848	172	156	18	61	32
	64JA15-170	1500#			6 3/4	6 1/8	11/16	2 3/8	85		172	156	18	61	39
2 1/2 x 4	64KA12-170	300#	150#	33 1/2	6 3/4	6 1/8	11/16	1 7/8	150	851	172	156	18	48	69
	64KA13-170	600#			6 3/4	6 1/8	11/16	1 7/8	150		172	156	18	48	69
	64KA14-170	900#			6 3/4	6 1/8	11/16	2 3/8	150		172	156	18	61	69
	64KA15-170	1500#			6 3/4	6 1/8	11/16	2 3/8	175		172	156	18	61	80
3 x 6	64LA12-170	300#	150#	36 5/8	8 1/2	7 13/16	11/16	2	230	931	216	199	18	51	105
	64LA13-170	600#			8 1/2	7 13/16	11/16	2	230		216	199	18	51	105
	64LA14-170	900#			8 1/2	7 13/16	11/16	2 5/8	230		216	199	18	67	105
	64LA15-170	1500#			8 1/2	7 13/16	11/16	2 5/8	250		216	199	18	67	114
3 x 6	64MA12-170	300#	150#	36 5/8	8 1/2	7 13/16	11/16	2	230	931	216	199	18	51	105
	64MA13-170	600#			8 1/2	7 13/16	11/16	2	230		216	199	18	51	105
	64MA14-170	900#			8 1/2	7 13/16	11/16	2 5/8	230		216	199	18	67	105
	64MA15-170	1500#			8 1/2	7 13/16	11/16	2 5/8	250		216	199	18	67	114
4 x 6	64NA12-170	300#	150#	42 3/8	10	8 7/8	11/16	2	230	1077	254	226	18	51	105
	64NA13-170	600#			10	8 7/8	11/16	2 1/4	250		254	226	18	58	114
	64NA14-170	900#			10	8 7/8	11/16	2 1/2	250		254	226	18	64	114
4 x 6	64PA12-170	300#	150#	42 3/8	10	8 7/8	11/16	2	230	1077	254	226	18	51	105
	64PA13-170	600#			10	8 7/8	11/16	2 1/4	250		254	226	18	58	114
	64PA14-170	900#			10	8 7/8	11/16	2 1/2	250		254	226	18	64	114

Above dimensions also apply to the 6600 Series with closed bonnet.

# Conversion Factors

To find desired value, multiply "Given" value by factor below

Pressure Conversion				
Given	psi	kPa	Bar	kg/cm <sup>2</sup>
psi	1	6.8948	0.0689	0.0703
kPa	0.145	1	0.01	0.0102
Bar	14.504	100	1	1.0197
kg/cm <sup>2</sup>	14.223	97.905	0.9	1

Liquid Flow Rate Conversion				
Given	gpm	bbl/day	l/min	m <sup>3</sup> /hr
gpm	1	34.29	3.785	0.2271
bbl/day	0.02917	1	0.1104	0.006624
l/min	0.2642	9.057	1	0.06
m <sup>3</sup> /hr	4.403	151	16.667	1

Mass Conversion				
Given	lb	tons	kg	tonnes
lb	1	0.0005	0.4536	0.00045
tons	2000	1	907.18	0.90718
kg	2.2046	0.0011	1	0.001
tonnes	2204.6	1.102	1000	1

Viscosity Conversion				
Given	cP	g/cm-s	centistoke	SSU
cP	1	0.01	1/G	4.63/G
g/cm-s	100	1	100/G	463/G
centistoke	G	(0.01)G	1	4.63
SSU	(0.216)G	(21.6)G	0.216	1

where G is liquid specific gravity

Volume Conversion				
Given	ft <sup>3</sup>	m <sup>3</sup>	gal	liter
ft <sup>3</sup>	1	0.02832	7.481	28.32
m <sup>3</sup>	35.31	1	264.2	1000
gal	0.1337	0.00379	1	3.785
liter	0.03532	0.001	0.2642	1

Density Conversion				
Given	lb/ft <sup>3</sup>	kg/m <sup>3</sup>	g/cm <sup>3</sup>	lb/gal
lb/ft <sup>3</sup>	1	16.018	0.016	0.1337
kg/m <sup>3</sup>	0.0624	1	0.001	0.0083
g/cm <sup>3</sup>	62.428	1000	1	8.345
lb/gal	7.481	119.83	0.1198	1

Area Conversion				
Given	in <sup>2</sup>	ft <sup>2</sup>	mm <sup>2</sup>	cm <sup>2</sup>
in <sup>2</sup>	1	0.00694	645.16	6.4516
ft <sup>2</sup>	144	1	92903	929.03
mm <sup>2</sup>	0.00155	1.08E-05	1	0.01
cm <sup>2</sup>	0.155	0.0011	100	1

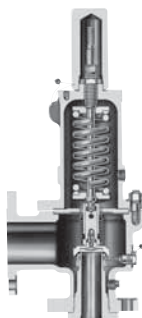
Temperature Conversion	
Fahrenheit (F) =	(1.8 x C) + 32
Celsius (C) =	0.555 x (F - 32)
Rankin (R) =	F + 459.67
Kelvin (K) =	C + 273.15

Length Conversion				
Given	ft	in	mm	m
ft	1	12	304.8	0.3048
in	0.0833	1	25.4	0.0254
mm	0.0033	0.0394	1	0.001
m	3.281	39.37	1000	1

Miscellaneous Conversions		
From	To	Multiply By
Specific Gravity-Gas	Molecular Wt-Gas	28.97
Density-Liq	Specific Gravity-Liq	1/(p Water)

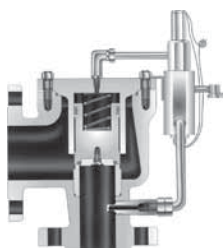
# Farris Engineering Products

## Process Pressure Relief Valves



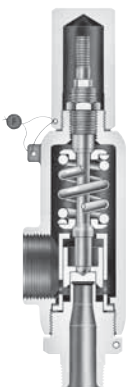
### SERIES 2600/2600L

- ASME NB Certified: Air, Steam & Water
- Sizes: 1" x 2" to 20" x 24"
- Pressure Range: 15 psig to 6000 psig
- Temperature Range: -450°F to +1500°F
- Materials: Carbon Steel, Stainless Steel, Monel & Hastelloy C
- Options: Balanced Bellows, O-Ring Seat, Open Bonnet
- CE Approved



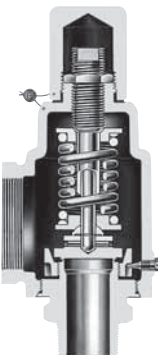
### SERIES 3800 Pilot Operated

- ASME NB Certified: Air, Steam & Water
- Sizes: 1" x 2" to 12" x 16"
- Pressure Range: 15 psig to 6170 psig
- Temperature Range: -450°F to +500°F
- Materials: Carbon Steel, Stainless Steel, Monel & Hastelloy C
- Actuation: Snap and Modulating Controls
- Options: Field Test Connections, Reverse Flow Preventer, Remote Depressurizing & Auxiliary Filters
- CE Approved



### SERIES 2700

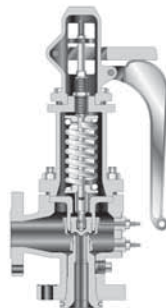
- ASME NB Certified: Air, Steam & Water
- Sizes: ½" x 1" to 1½" x 2½"
- Pressure Range: 15 psig to 6500 psig
- Temperature Range: -450°F to +750°F
- Materials: Carbon Steel, Stainless Steel, Monel & Hastelloy C
- Options: Balanced Design, O-Ring Seats, Flanged, Socket Weld, Welding Nipple, & Sanitary Connections
- CE Approved



### SERIES 2850/2856

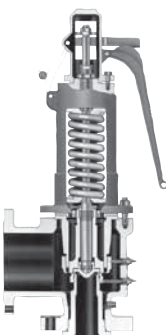
- ASME NB Certified: Air & Steam
- Sizes: ¾" x 1" to 1½" x 2" (2850)  
¾" x 1¼" to 2" x 3" (2856)
- Pressure Range: 15 psig to 300 psig
- Temperature Range: -20°F to +750°F (2850)  
-450°F to +400°F (2856)
- Materials: Stainless Steel Body & Trim  
Steel Bonnet (2850) Brass Body & Trim,  
Bronze Bonnet (2856)

## Steam Safety Valves



### SERIES 4200

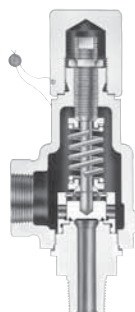
- ASME NB Section I & VIII Certified: Steam & Air
- Sizes 1¼" x 1½" to 6" x 8"
- Pressure Range: 15 psig to 1000 psig
- Temperature Range: -20°F to +1000°F
- Materials: Carbon Steel, Stainless Steel, Chrome-Moly
- Options: Test Gag
- CE Approved



### SERIES 6400/6600

- ASME NB Section I & VIII Certified: Steam & Air
- Sizes: 1" x 2" to 4" x 6"
- Pressure Range: 15 psig to 1500 psig
- Temperature Range: -20°F to +1000°F
- Materials: Carbon Steel, Stainless Steel, Chrome-Moly
- Options: Closed Bonnet (6600) & Test Gag

## Special Purpose Pressure Relief Valves



### SERIES 1890/1896M

- ASME NB Certified: Air, Steam & Water
- Sizes: ½" x 1" & ¾" x 1" (1890)  
½" x ¾" & ¾" x ¾" (1896M)
- Pressure Range: 15 psig to 800 psig (1890) 15 psig to 300 psig (1896M)
- Temperature Range: -20°F to +750°F (1890) -450°F to +400°F (1896M)
- Materials: Stainless Steel Body & Trim (1890) Brass Body & Trim, Bronze Bonnet (1896M)

\*Other materials available upon request. Please consult the factory.

# Farris Engineering Products and Services

## Process Pressure Relief Valves

Series 2600	ASME NB Certified for Air, Steam and Water
Series 2600L	ASME NB Dual Certified for Air and Water
Series 3800	ASME NB Certified for Air, Steam and Water
Series 2700	ASME NB Certified for Air, Steam and Water
Series 1890/1896M	ASME NB Certified for Air, Steam and Water
Series 2850/2856	ASME NB Certified for Air and Steam

## Steam Safety Valves

Series 4200	ASME NB Certified for Steam – Section I & VIII
Series 6400/6600	ASME NB Certified for Steam – Section I & VIII
Series 560	ASME NB Certified for Steam – Section I

## Nuclear Pressure Relief Valves

Series 4700/4700L	ASME NB Section III, Division 1 Class I, II & III
Series 2700/3700	ASME NB Section III, Division 1 Class I, II & III
Series 2600/2600L	ASME NB Section III, Division 1 Class I, II & III
Series 3800	ASME NB Section III, Division 1 Class I, II & III

## The following is a list of Farris approvals currently on record:

- ASME “V”, “UV”, “NV”, and “NPT”
- National Board “NB” approval
- ISO 9001-2008
- US Coast Guard
- PED 97/23/EC (European Pressure Equipment Directive)
- ATEX 94/9/EC (European Potentially Explosive Atmospheres)
- CSA B51 (Canadian Registration)
- CSQL (China Safety Quality License)
- Russian GOST-R Certification and RTN Permit
- First Point Assessment Limited
- Nuclear – 10 CFR 50 Appendix B, NCA-4000, NQA-1, N285.0



## SizeMaster™ Mark IV

Pressure Relief Valve Engineering Software for Sizing and Selection

## FAST Centers (Farris Authorized Service Team)

- Worldwide Network of Service Centers with Factory Trained Technicians
- Local Inventory and Support, 24 Hours a Day, 7 Days a Week
- Access to Worldwide Farris Inventory through the Web
- ASME/National Board Approved Assembly, Repair & Test Facilities
- Application, Sizing & Selection Support

## PSM Engineering Services

- Pressure Relief System Design Services
- Pressure Relief System Audit Services
- iPRSM Pressure Relief System Management Software



10195 Brecksville Road, Brecksville, OH 44141 USA • Telephone: 440-838-7690 • Fax: 440-838-7699 • <http://farris.cwfc.com>

**Facilities:** Brecksville, Ohio, USA; Brantford, Ontario, Edmonton, Alberta, Canada; Bridport, Dorset, UK; Delhi, India; Tianjin, Beijing, China; Dubai, U.A.E.

**Offices Worldwide:** For a listing of our global sales network, visit our website at <http://farris.cwfc.com>.

While this information is presented in good faith and believed to be accurate, Farris Engineering, division of Curtiss-Wright Flow Control Corporation, does not guarantee satisfactory results from reliance on such information. Nothing contained herein is to be construed as a warranty or guarantee, expressed or implied, regarding the performance, merchantability, fitness or any other matter with respect to the products, nor as a recommendation to use any product or process in conflict with any patent. Farris Engineering, division of Curtiss-Wright Flow Control Corporation, reserves the right, without notice, to alter or improve the designs or specifications of the products described herein.