



## Series 2500 Flanged Safety Relief Valves

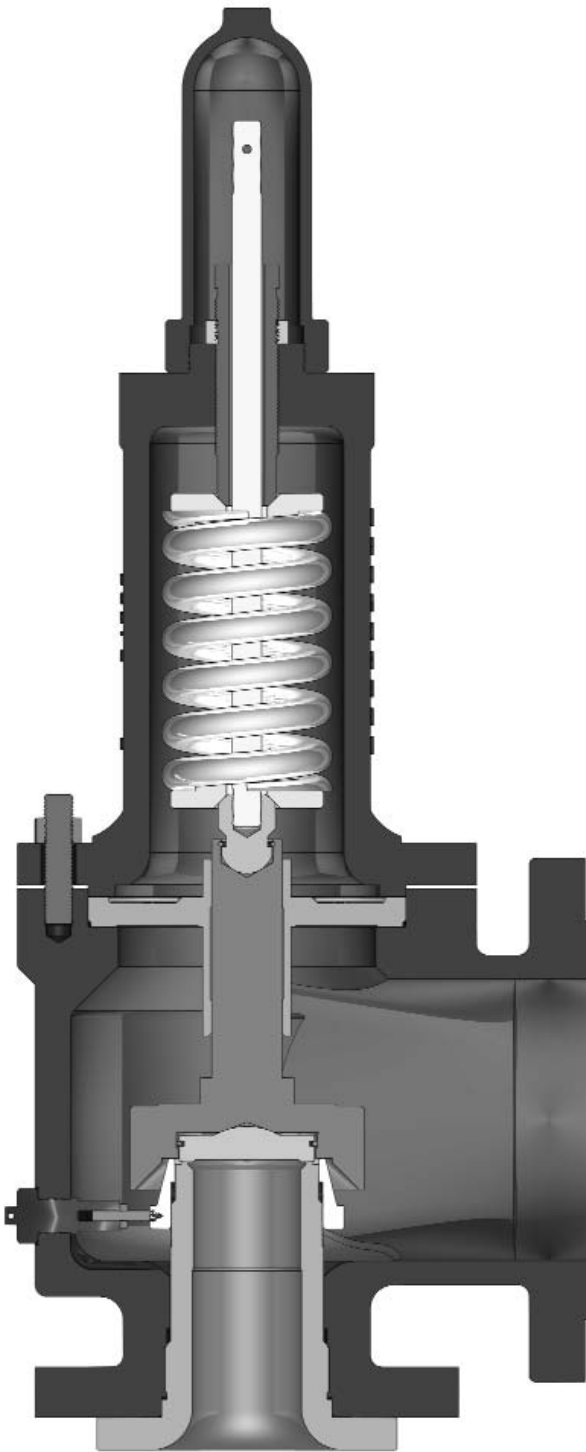
Manufactured in accordance with ASME Code Section VIII

NBBI capacity certified for air/gas, liquid & steam

Meets API 526 & 527

Excellent flow capacities

NACE, bellows and severe service options





**A QUICK LOOK...**

**HYDROSEAL VALVE COMPANY**, is a progressive independent manufacturer of safety relief valve, and allied equipment for the world-wide petroleum industry. Founded in 1955 in Kilgore, Texas, center of one of the largest oil-fields in the lower 48 states. Hydroseal is strategically located for quick shipments throughout the United States.

**HIGH QUALITY...**

Every part incorporated in the unique field-proven designs of Hydroseal Valve's line of safety relief valves is manufactured in accordance with the stringent quality control procedures mandated by The American Society of Mechanical Engineers (ASME) and its inspection arm, The National Board of Boiler and Pressure Vessel Inspectors of Columbus, Ohio. Many of Hydroseal's safety relief valves have carried the ASME UV (Unfired Vessel) Code Stamp since 1962.

**PERFORMANCE...**

A variety of materials and designs are available to meet the most exacting requirements of severe and critical applications. Prices are usually well below industry norms. By specializing in a limited line of quality products and unhampered by rigid production schedules, shipments can be made in record time. Customer emergencies are given priority handling in every department.

**WORLDWIDE SALES...**

With high performance, competitive pricing and fast deliveries, it's no wonder engineers and purchasing agents specify and order Hydroseal Valve products through its network of distributors and supply points around the world.

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# ORDERING INFORMATION

## ORDERING INFORMATION

In order to insure that you receive the correct valve to fit your needs, please be sure to specify as many of the following as possible when ordering a Hydroseal valve:

- 1) Quantity\*
- 2) Valve model #\*
- 3) Inlet and outlet size
- 4) Inlet and outlet flange class and facing
- 5) Material requirements
- 6) Seat type
- 7) Set pressure\*
- 8) Allowable overpressure\*
- 9) Back pressure if any (indicate if superimposed constant, variable, and/or built-up)\*
- 10) Operating and relieving temperature at inlet\*
- 11) Required capacity\*
- 12) Type of service (Air, Gas/Vapor, Liquid, Steam)\*
- 13) Molecular weight, density, and/or specific gravity\*
- 14) Accessories, including cap type and test gag (if desired)
- 15) Any code requirements
- 16) Any special requirements

\* As a courtesy service, we will check the sizing and selection of your valves. In order to take advantage of this service, starred information must be included in your order.

### Replacement Parts:

If a replacement valve is necessary, please specify valve model #, size, and serial # to assure an exact match. If a valve type has been discontinued, we will recommend the appropriate equivalent valve type if possible.

When ordering spare or replacement parts, denote part names as used in the bills of material on page XX. In addition, please specify valve model #, size and either serial # or purchase order #.

## Features

### of the Hydroseal 2500 Series

The Hydroseal 2500 series is designed to meet demanding process application. These valves will provide long service life and ease of maintenance.

Manufactured in accordance with the ASME Boiler and Pressure Code, Section VIII and NBBI capacity certified for air, gas, liquid and steam service without the need for changing trims.

Meets API 526 specifications for bolt in replacement of other manufacturers valves with available orifices D through T.

Superior seat tightness with precision lapped metal to metal or O-Ring seat seals.

Available in a variety of corrosion resistant material offerings including 316 stainless steel, Monel, Hastelloy C, Alloy 20 and NACE trims.

Self aligning disk and precisely guided one-piece disk holder assembly. Extraction holes in diskholder provide easier removal of disk for repairs. Ball bearing pivot between spring stem and disk holder to prevent rotation of the disk while adjusting set pressure.

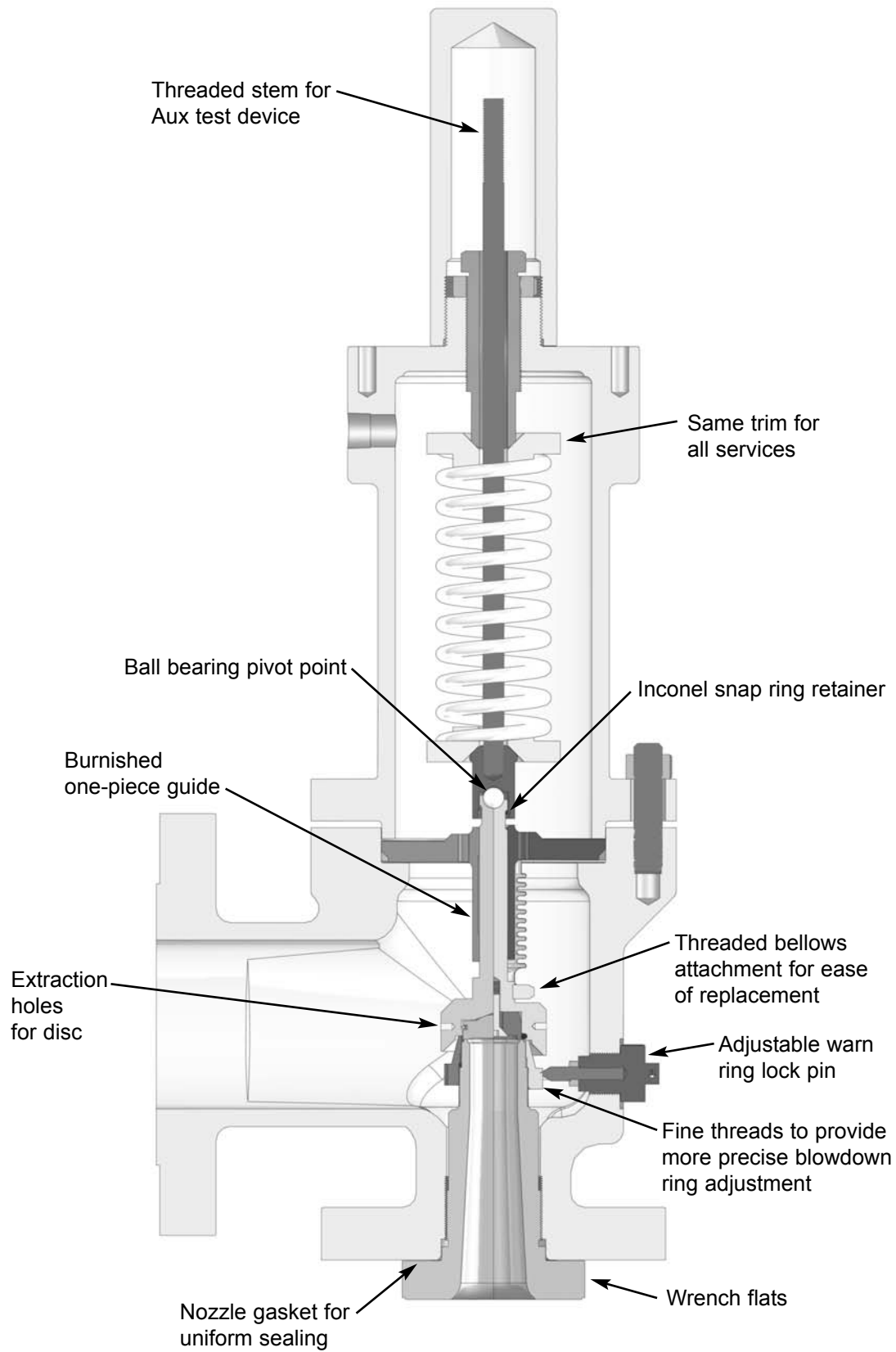
Interchangeable disks for metal and soft seat options. Easily installed threaded balanced bellows design for fast installation.

Fine threads on warn ring allows for more precise blowdown adjustment.

Wrench flats on valve nozzle allow easier service. Nozzle gasket provides for more uniform sealing than metal seal.

# FEATURES & BENEFITS

## GENERAL INFORMATION



# 2500 NOMINCLATURE

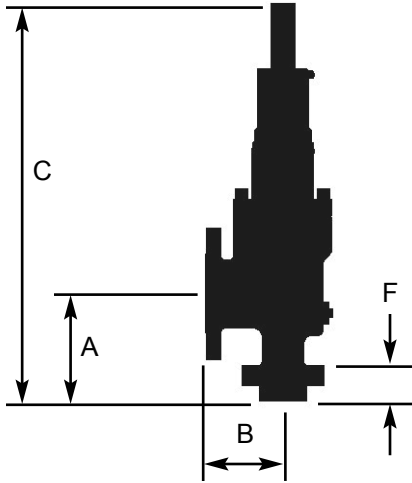
## 2500 PRODUCT INFORMATION

B25	M	15F20A	1	C1			A	O	/H0
Series	Seat Type	Inlet x Orif. x Outlet	Face Type	Material Code			Service Code	Cap Type	Spring Range Code
<b>25</b> Without Bellows Option	<b>M</b> Metal	<i>(Refer to "Type" on the 'Dimensions &amp; Weights' Table, next page for selection.)</i>	<b>1</b> RF xRF	<b>Body</b>	<b>Spring</b>	<b>Trim</b>	<b>A</b> ASME SEC VIII Air/Gas	<b>O</b> Closed Cap	<i>Spring Codes are determined at time of manufacture and may change without notice.</i>
	<b>C</b> Neoprene		<b>2</b> RJ x RF	<b>C1</b>	WCB	CS/AS	316SS	<b>L</b> Open Lift Lever	
<b>B25</b> With Bellows Option	<b>E</b> EPDM		<b>X</b> Special	<b>C2</b>	WCB	316SS	<b>316SS</b>	<b>B</b> ASME SEC. VIII Steam	<i>Do not use this number when ordering.</i>
	<b>K</b> Kalrez®			<b>C3</b>	WCB	Inconel®	316SS	<b>C</b> ASME SEC. VIII Liquid	
	<b>N</b> Nitrile			<b>C4</b>	WCB-NACE	Inconel®	316SS	<b>M</b> ASME SEC. VIII Air/Gas	<i>Refer to 'ORDERING INFORMATION' pg2 for criteria to help us determine this code.</i>
	<b>S</b> Silicone			<b>S1</b>	CF8M	SS	316SS	<b>G</b> Closed w/Gag	
	<b>V</b> Fluoro-Carbon			<b>S2</b>	CF8M	316SS	316SS	<b>F</b> Non Code Air/Gas	<b>M</b> Open Lift Lever w/GAG
				<b>S3</b>	CF8M	Inconel®	316SS	<b>G</b> Non Code Steam	
				<b>M1</b>	WCB	CS	Monel®	<b>H</b> Non Code Liquid	<b>S</b> Packed Lift Lever w/Gag
				<b>M2</b>	CF8M	SS	Monel®		
				<b>H1</b>	WCB	CS/AS	Hast. C		
				<b>H2</b>	CF8M	SS	Hast. C		
				<b>X1</b>	Special	Special	Special		

O-RING TEMPERATURE RANGE FOR SOFT SEAT OPERATION			
SYMBOL	ELASTOMER	Temperature Range	
		°F	°C
C	Neoprene	-45 to +300	-43 to +149
E	Ethylene Propylene	-70 to +300	-57 to +149
K	Kalrez®	+30 to +550	-1 to +288
N	Nitrile (Buna N)	-65 to +225	-55 to +107
S	Silicone	-65 to +450	-54 to +232
V	Fluorocarbon	-15 to +450	-26 to +232
T	Teflon®	-300 to +450	-185 to +23

Material Legend	
AS	Alloy Steel
CS	Carbon Steel
CF8M	SA-351 GR CF8M
SS	Stainless Steel
316-SS	316 Stainless Steel
Monel®	Monel® 400
Hast. C.	Hastelloy® C
Inconel®	Inconel® X750
WCB	SA216 GR WCB/WCC
WCB-NACE	SA-216 GR WCB/WCC
	NACE MRO175.94

# DIMENSIONS & WEIGHTS



Size Inlet x Outlet	Flange Ratings IN x OUT	Type *	Dimensions (in.)				Appr. Wt. (lbs.)
			A	B	C	F	
1" x 2"	150 x 150	10DR20A	4 1/8	4 1/2	21 1/2	1 1/4	49
	300 x 150	10DR20B	4 1/8	4 1/2	21 1/2	1 3/8	50
	300 x 150	10DR20C	4 1/8	4 1/2	21 1/2	1 3/8	50
	600 x 150	10DR20D	4 1/8	4 1/2	21 1/2	1 3/8	50
1" x 2"	150 x 150	10ER20A	4 1/8	4 1/2	21 1/2	1 1/4	49
	300 x 150	10ER20B	4 1/8	4 1/2	21 1/2	1 3/8	50
	300 x 150	10ER20C	4 1/8	4 1/2	21 1/2	1 3/8	50
	600 x 150	10ER20D	4 1/8	4 1/2	21 1/2	1 3/8	50
1 1/2" x 2"	150 x 150	15F20A	4 7/8	4 3/4	21 1/2	1 5/16	54
	300 x 150	15F20B	4 7/8	4 3/4	21 1/2	1 7/16	56
	300 x 150	15F20C	4 7/8	6	21 1/2	1 7/16	64
	600 x 150	15F20D	4 7/8	6	21 1/2	1 1/2	64
1 1/2" x 2 1/2"	150 x 150	15G25A	4 7/8	4 3/4	21 1/2	1 5/16	55
	300 x 150	15G25B	4 7/8	4 3/4	21 1/2	1 7/16	58
	300 x 150	15G25C	4 7/8	6	21 1/2	1 7/16	66
	600 x 150	15G25D	4 7/8	6	21 1/2	1 1/2	69
1 1/2" x 3"	150 x 150	15G30A	4 7/8	4 3/4	21 1/2	1 5/16	60
	300 x 150	15G30B	4 7/8	4 3/4	21 1/2	1 7/16	63
	300 x 150	15G30C	4 7/8	6	21 1/2	1 7/16	70
	600 x 150	15G30D	4 7/8	6	21 1/2	1 1/2	73

\* - Not a full Model Number

Size Inlet x Outlet	Flange Ratings IN x OUT	Type *	Dimensions (in.)				Appr. Wt. (lbs.)
			A	B	C	F	
1 1/2" x 3"	150 x 150	15H30A	5 1/8	4 7/8	24 1/2	1 1/2	60
	300 x 150	15H30B	5 1/8	4 7/8	24 1/2	1 1/2	60
2" x 3"	300 x 150	20H30C	5 1/8	4 7/8	24 1/2	1 1/2	65
	600 x 150	20H30D	6	6 3/8	29	1 1/2	85
2" x 3"	150 x 150	20J30A	5 3/8	4 7/8	25 1/8	1 1/2	75
	300 x 150	20J30B	5 3/8	4 7/8	25 1/8	1 1/2	80
2 1/2" x 4"	300 x 150	25J40C	6 1/8	6 3/4	29 1/2	2	100
	600 x 150	25J40D	6 1/8	6 3/4	29 1/2	2	105
3" x 4"	300 x 150	30J40C	7 1/4	7 1/8	30 3/8	1 15/16	110
	600 x 150	30J40D	7 1/4	7 1/8	25 7/8	1 1/2	112
3" x 4"	150 x 150	30K40A	6 1/8	6 3/8	26 3/8	1 3/4	126
	300 x 150	30K40B	6 1/8	6 3/8	30 3/8	1 3/4	125
	300 x 150	30K40C	6 1/8	6 3/8	30 3/8	1 15/16	136
	600 x 150	30K40D	7 1/4	7 1/8	29 3/4	1 1/2	138
3" x 4"	150 x 150	30L40A	6 1/8	6 1/2	29 3/4	1 3/4	140
	300 x 150	30L40B	6 1/8	6 1/2	33	1 7/8	190
4" x 6"	300 x 150	40L60C	7	7 1/8	33	2 3/16	220
	600 x 150	40L60D	7	8	30 3/4	1 1/2	230
4" x 6"	150 x 150	40M60A	7	7 1/4	21 1/2	1 7/8	185
	300 x 150	40M60B	7	7 1/4	33	1 7/8	190
	300 x 150	40M60C	7	7 1/4	37 1/4	2 3/16	230
	600 x 150	40M60D	7	8	37 1/4	2	300
4" x 6"	150 x 150	40N60A	7 3/4	8 1/4	33 1/2	1 1/2	220
	300 x 150	40N60B	7 3/4	7 1/4	21 1/2	1 7/8	225
	300 x 150	40N60C	7 3/4	7 1/4	35 1/4	1 7/8	260
	600 x 150	40N60D	7 3/4	7 1/4	40	2 3/16	300
4" x 6"	150 x 150	40P60A	7 1/8	9	34 1/2	1 1/2	260
	300 x 150	40P60B	7 1/8	9	21 1/2	1 7/8	270
	300 x 150	40P60C	8 7/8	10	42	1 7/8	350
	600 x 150	40P60D	8 7/8	10	44 1/2	2 3/16	530
6" x 8"	150 x 150	60Q80A	9 4/9	9 1/2	40 1/2	1 13/16	430
	300 x 150	60Q80B	9 4/9	9 1/2	21 1/2	2 3/16	445
	300 x 150	60Q80C	9 4/9	9 1/2	44 1/4	2 3/16	530
	600 x 150	60Q80D	9 4/9	9 1/2	48	2 1/2	645
6" x 8"	150 x 150	60R80A	9 4/9	9 1/2	42	1 13/16	495
	300 x 150	60R80B	9 4/9	9 1/2	21 1/2	2 3/16	510
	300 x 150	60R80C	9 4/9	10 1/2	46 3/4	2 3/16	550
	600 x 150	60R80D	9 4/9	10 1/2	48 3/4	2 1/2	675
8" x 10"	150 x 150	80T100A	10 7/8	11	45 3/4	2 1/16	620
	300 x 150	80T100B	10 7/8	11	45 3/4	2 1/2	640
	300 x 150	80T100C	10 7/8	11	55 1/4	3	840

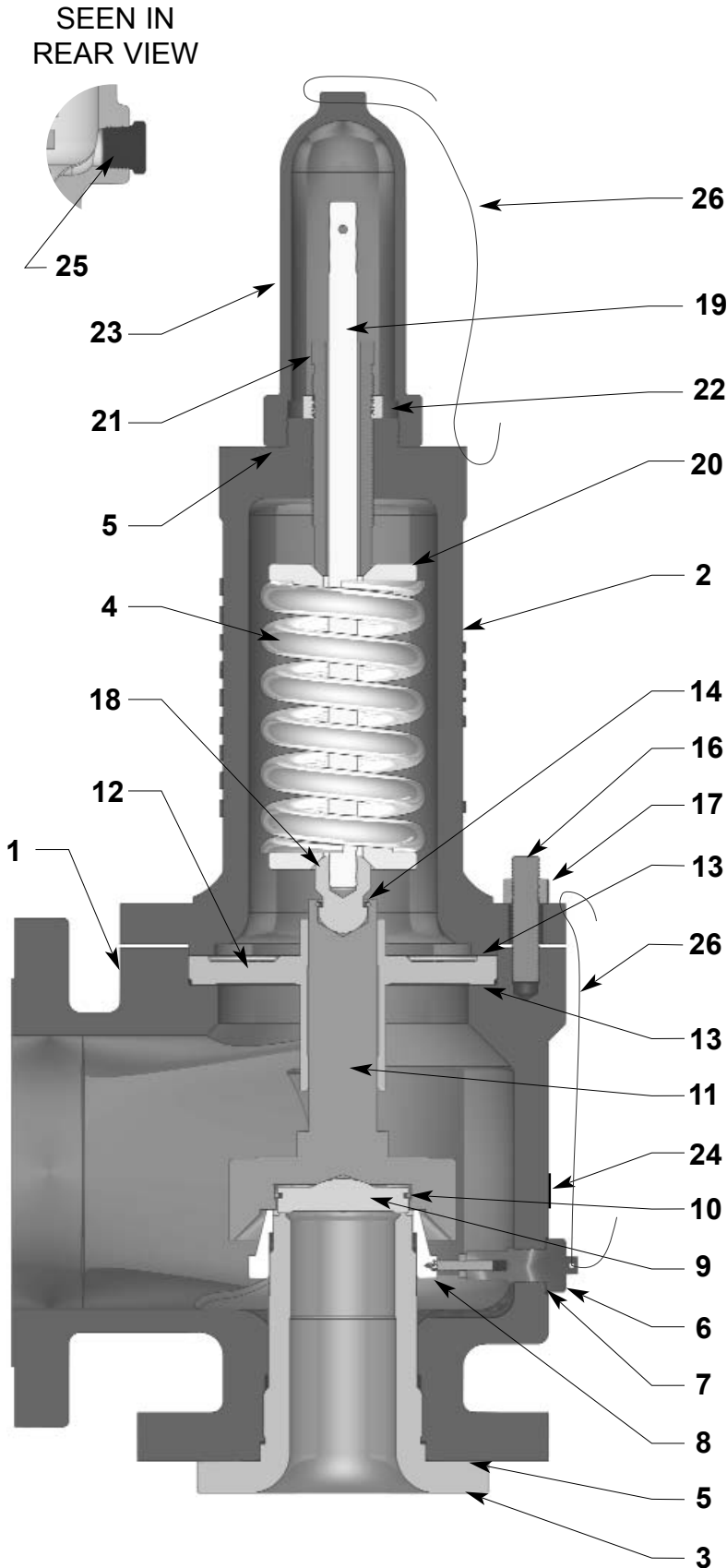
2500 PRODUCT INFORMATION

### NOTES:

- Center to face dimensions A and B comply with ANSI/API Standard 526
- The type numbers shown indicate conventional valves. For other constructions, see the type numbering system on page 4.

# 2500 CONVENTIONAL, METAL SEATED

## 2500 PRODUCT INFORMATION



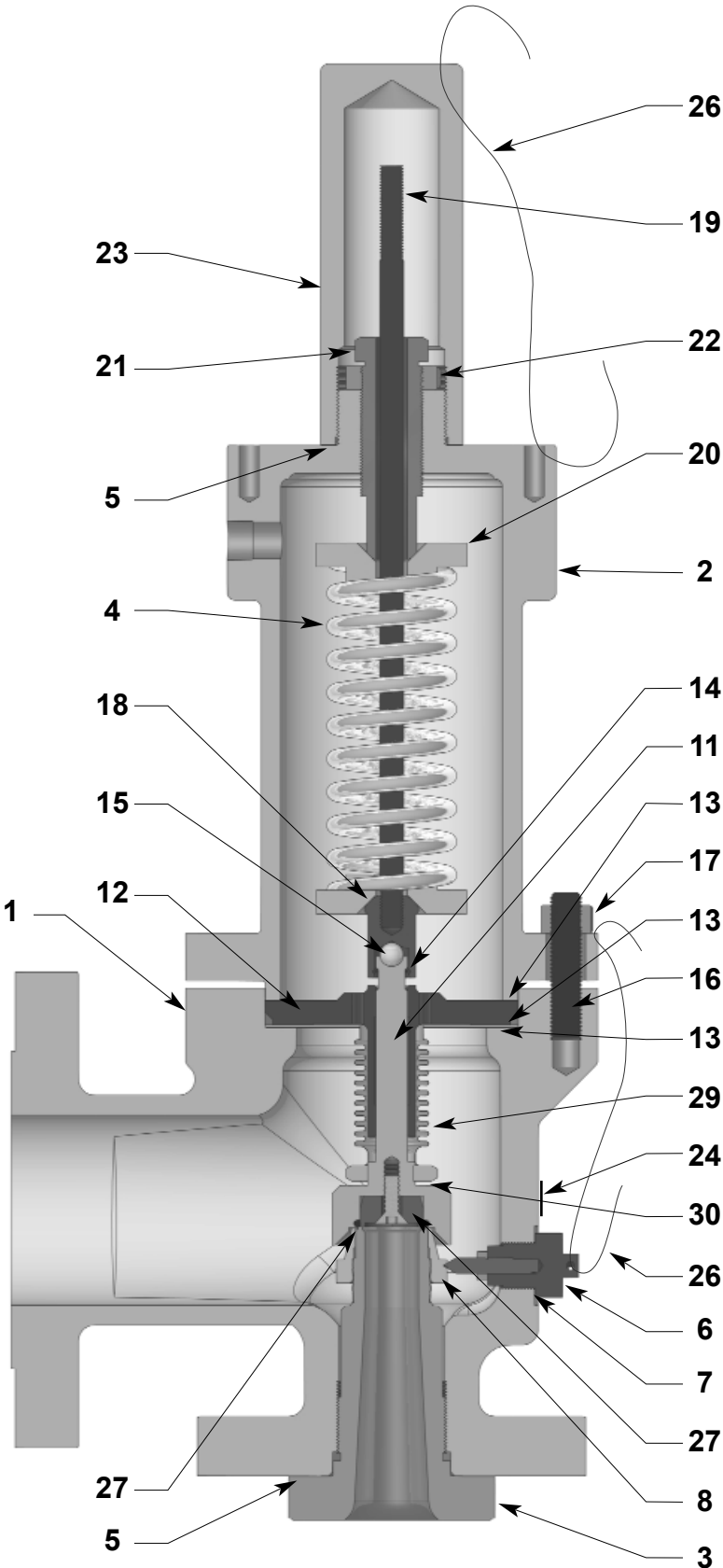
	PART NAME	MAT'L
1	BODY	WCB
2	BONNET	WCB
3*	NOZZLE	316 or CF8M
4	SPRING	CS
5*	GASKET	SOFT IRON
6	LOCKPIN	316
7	LOCKPIN GASKET	SOFT IRON
8	WARNRING	316 or CF8M
9*	DISK	316 or CF8M
10*	DISK RETAINING RING	T302
11	DISK HOLDER	316 or CF8M
12	GUIDE	17-4 PH
13*	GUIDE GASKET	SOFT IRON
14*	STEM JOINT RETAINER	T302
16	BONNET STUD	SA 193 GR B7
17	BONNET STUD NUTS	SA 194 GR 2H
18	STEM JOINT	316
19	STEM	316
20	SPRING PLATE	316
21	ADJUSTING SCREW	PLATED CS
22	ADJUSTING LOCKNUT	PLATED CS
23	CAP	ASTM A108
24	NAMEPLATE	SS
25	DRAINPLUG	SA 105
26	SEALWIRE	SS

- 1] "\*" Indicates that part is included in 'Recommended Spare Parts' list.
- 2] For open and packed lift lever materials please see pg12.
- 3] Inconel springs required above 450°F



# 2500 BALANCED BELLOWS, SOFT SEATED

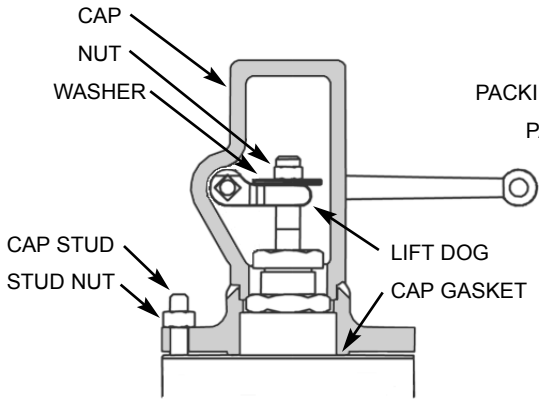
## 2500 PRODUCT INFORMATION



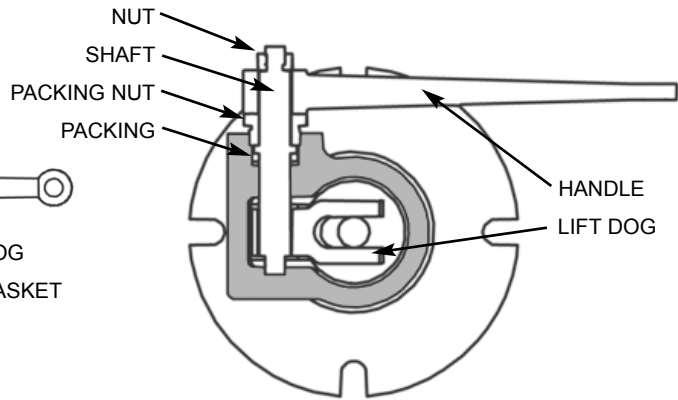
	PART NAME	MAT'L
1	BODY	WCB
2	BONNET	WCB
3	NOZZLE	316 or CF8M
4	SPRING	CS
5*	GASKET	SOFT IRON
6	LOCKPIN	316
7*	LOCKPIN GASKET	SOFT IRON
8	WARNRING	316 or CF8M
9	DISK	316 or CF8M
10*	DISK RETAINER	T302
11*	DISK HOLDER	316 or CF8M
12	GUIDE	17-4 PH
13*	GUIDE GASKET	SOFT IRON
14*	STEM JOINT RETAINER	T302
15*	STEM JOINT BALL	A493 GR B7
16	BONNET STUD	SA 193 GR B7
17	BONNET STUD NUTS	SA 194 GR 2H
18	STEM JOINT	316
19	STEM	316
20	SPRING PLATE	316
21	ADJUSTING SCREW	PLATED CS
22	ADJUSTING LOCKNUT	PLATED CS
23	CAP	ASTM A108
24	NAMEPLATE	SS
25	DRAINPLUG	SA 105
26	SEALWIRE	SS
27	DISK ASSEMBLY	316
28*	SEAT O-RING	See Seat Mat'ls
29	BELLOWS ASSEMBLY	INCONEL® 625
30	DISK HOLDER GASKET	SOFT IRON

- 1] "\*" Indicates that part is included in 'Recommended Spare Parts' list.
- 2] For open and packed lift lever materials please see pg12.
- 3] Inconel springs required above 450°F
- 4] BackPressure limits on Bellows Valves
- 5] For O-ring materials, and pressure & temperature limits, see pgs, 4 & 10-11.

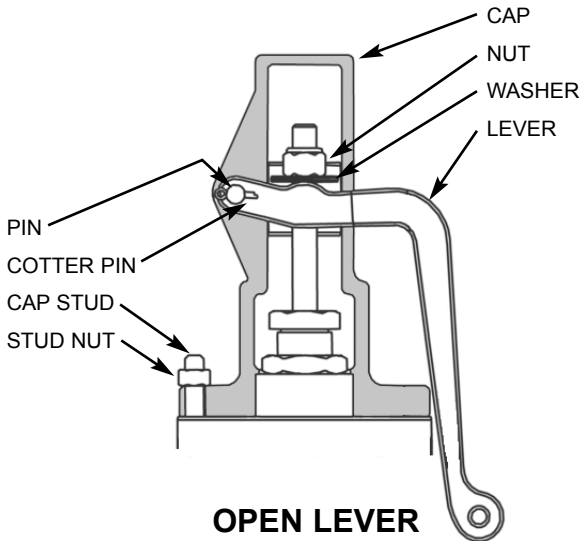
# CAP TYPES



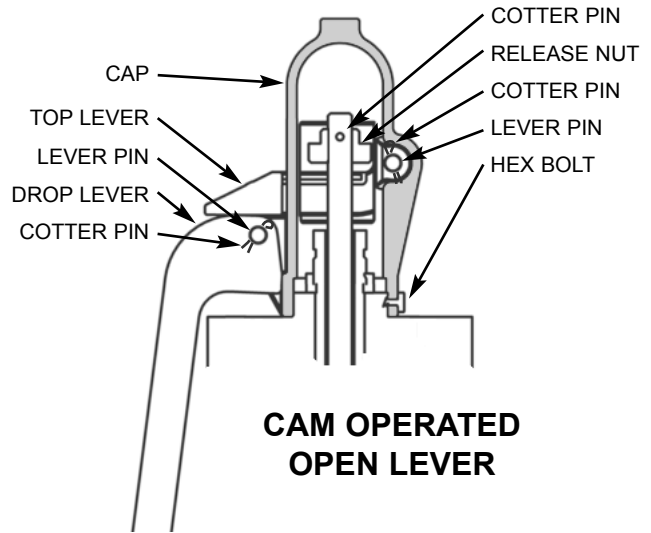
**PACKED LEVER (SIDE VIEW)**



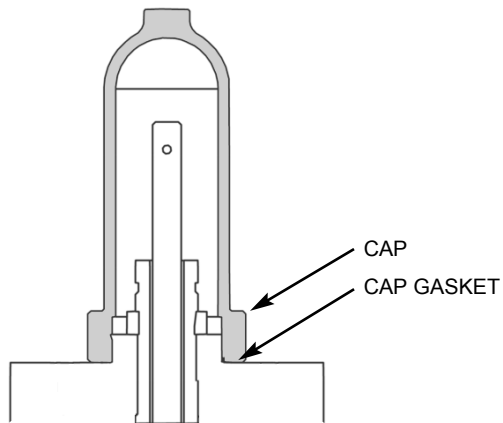
**PACKED LEVER (TOP VIEW)**



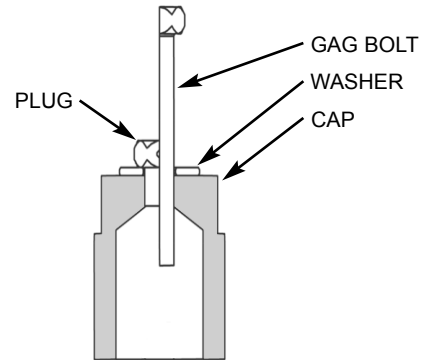
**OPEN LEVER**



**CAM OPERATED OPEN LEVER**



**CLOSED CAP**

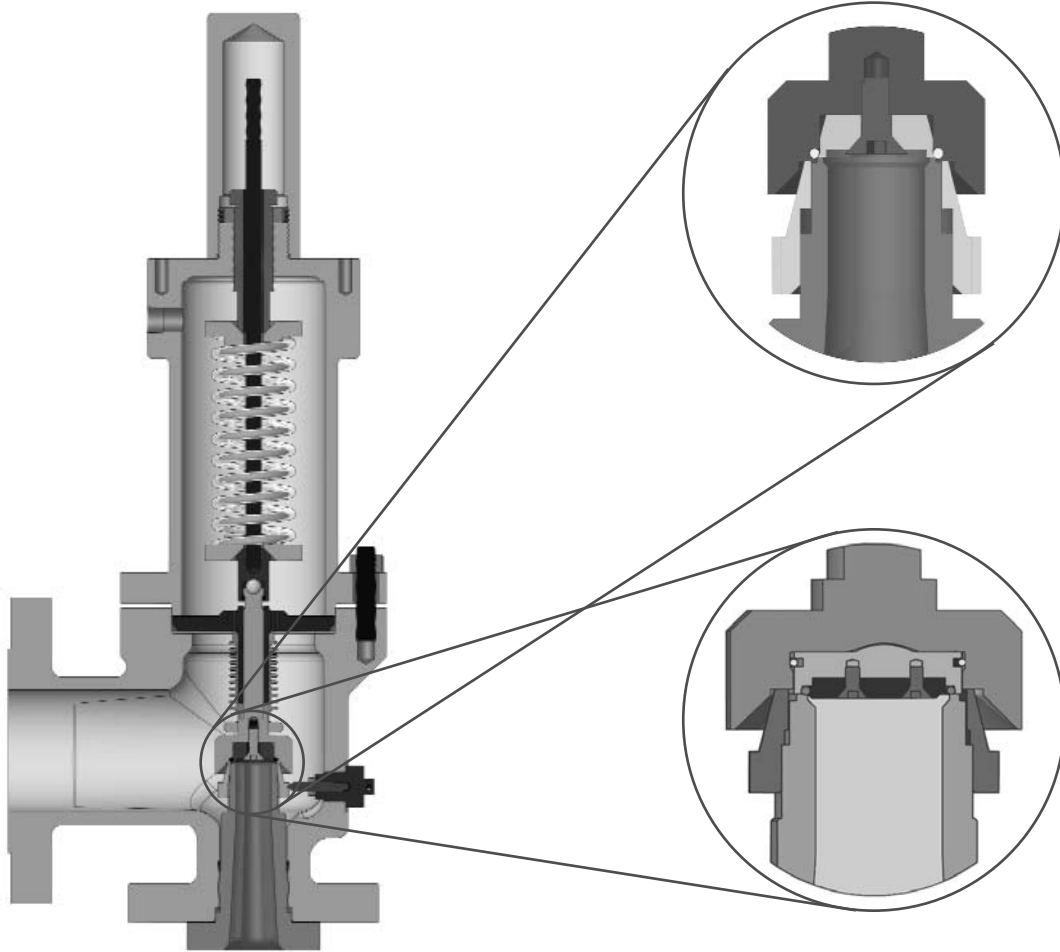


**GAG ASSEMBLY**

# 2500 PRODUCT INFORMATION

# SOFT SEAT FEATURES & BENEFITS

## 2500 O-RINGS



Hydroseal offers O-ring soft seat options for most of the 2500 Safety valves at little or no additional cost for the valve. A variety of O-ring materials are available to provide the best elastomer for the service media and temperature. O-ring material options can be found on the Nomenclature Information on page 4. O-rings temperature and durometer options can be viewed on the graphs found on page 11.

O-ring soft seal valve seats are recommended for service on air, gas and light hydrocarbon service. Typical applications for the soft seat include: Hard to hold gasses and fluids, Contaminated fluids, Vibration, and Set pressure close to the operating pressure.

O-ring seals minimize the problems encountered with media containing small solid contaminates. Metal to metal seats are lapped to a mirror finish

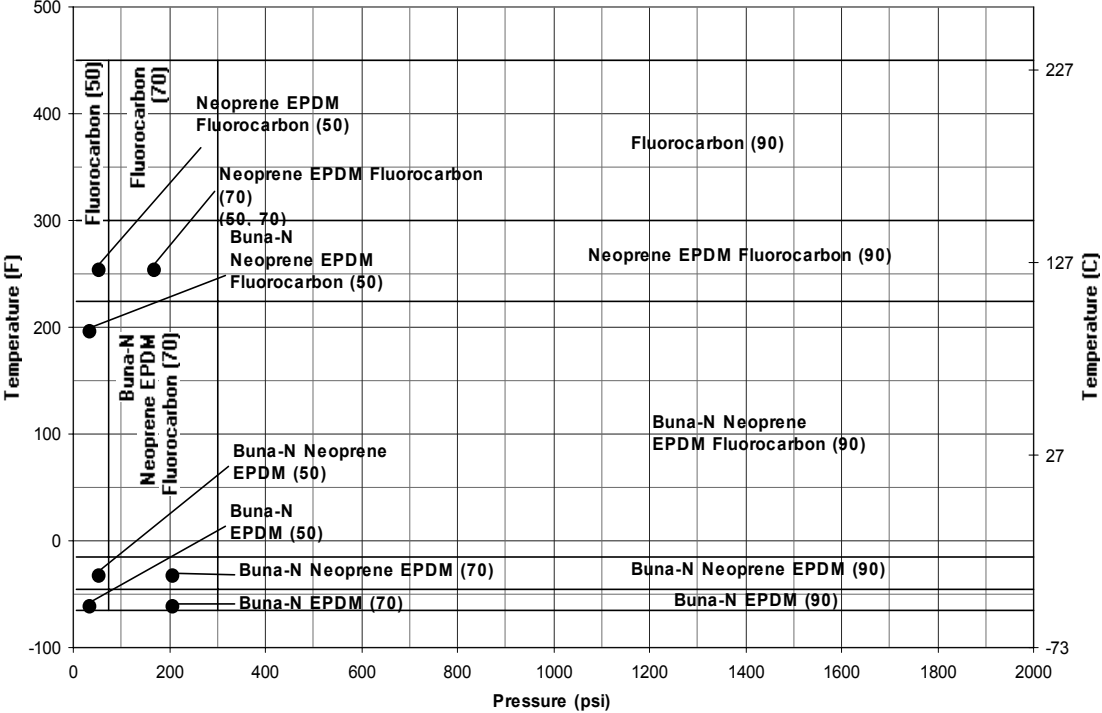
and require the sealing service remain clean to ensure a tight seal. Soft seat designs provide a degree of forgiveness by conforming to a sealing surface that is less than perfect in the case of small particles in the relieving fluids that may damage the metal seat surface .

Safety valves subjected to vibration or pulsation may result in the valves leaking or relieving early. Soft seat valves will reduce the effects of the external vibrations and maintain seat tightness to a higher degree than metal seats under these conditions.

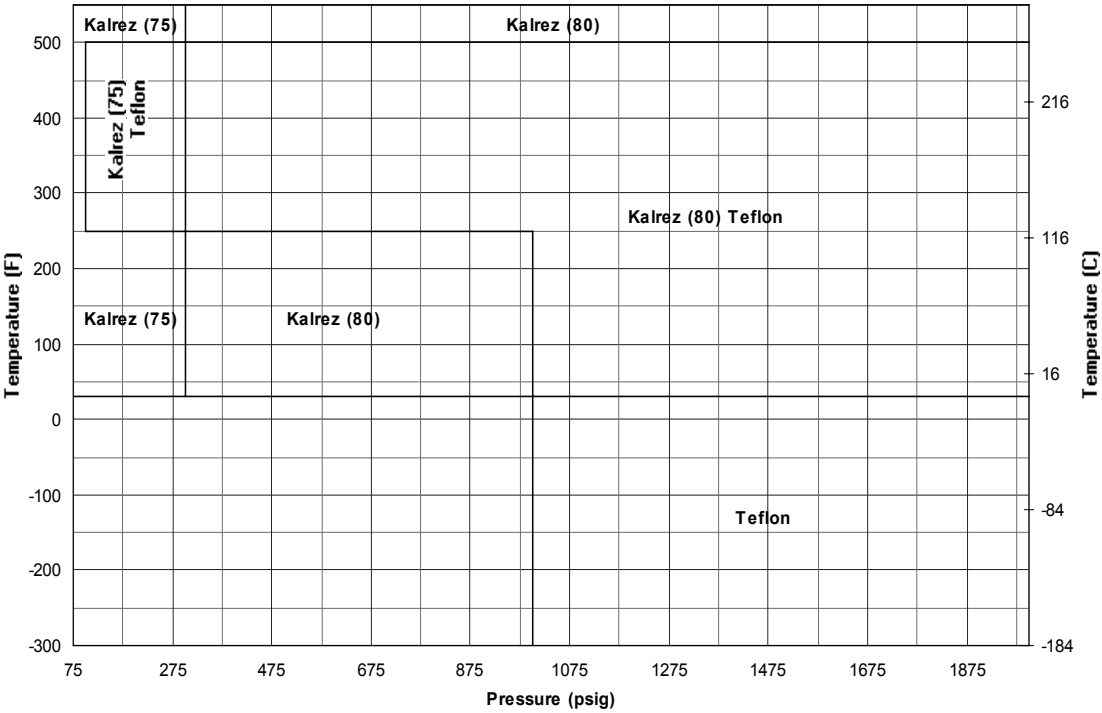
O-ring seated valves will maintain a bubble tight seal longer than metal seated valves when operating close to the set point of the valve. When it is not feasible to provide greater differentials between operating pressure and set pressure, soft seat valves should be utilized.

# O-RING PRESSURE/TEMPERATURE CHARTS

O-Ring Materials P/T Chart 1  
(Buna-N, EPDM, Fluorocarbon & Neoprene)



O-Ring Materials P/T Chart 2  
(Kalrez and Teflon)



# BILLS OF MATERIALS

2500 MATERIALS

	PARTNAME	C1	C2	C3	C4
1	BODY	WCB	WCB	WCB	WCB
2	BONNET	WCB	WCB	WCB	WCB
3	NOZZLE	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M
4	SPRING	CS	T3 16	INCONEL® 750	INCONEL® 750
5	GASKET	SOFT IRON	3 16	SOFT IRON	SOFT IRON
6	LOCKPIN	3 16	3 16	3 16	3 16
7	LOCKPIN GASKET	SOFT IRON	SA240 3 16	SOFT IRON	SOFT IRON
8	WARNRING	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M
9	DISK	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M
10	DISK RETAINING RING	T302	INCONEL® X750	INCONEL® X750	INCONEL® X750
11	DISK HOLDER	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M
12	GUIDE	17-4PH	3 16	17-4PH	17-4PH
13	GUIDE GASKET	SOFT IRON	SA240 3 16	SOFT IRON	SOFT IRON
14	STEM JOINT RETAINER	T302	INCONEL® 750	INCONEL® 750	INCONEL® 750
15	STEM JOINT BALL	A493 GR B7	A493 GR B7	A493 GR B7	COBALT
16	BONNET STUD	SA 193 GR B7	SA 193 GR B7	SA 193 GR B7	320 L7M OR GR8
17	BONNET STUD NUTS	SA 194 GR 2H	SA 194 GR 2H	SA 194 GR 2H	SA 194 GR 2H
18	STEM JOINT	3 16	3 16	3 16	3 16
19	STEM	3 16	3 16	3 16	3 16
20	SPRING PLATE	3 16	3 16	3 16	3 16
21	ADJUSTING SCREW	PLATED CS	3 16	PLATED CS	PLATED CS
22	ADJUSTING LOCKNUT	PLATED CS	3 16	PLATED CS	PLATED CS
23	CAP	ASTM A 108	ASTM A 108	ASTM A 108	ASTM A 108
24	NAMEPLATE	SS	SS	SS	SS
25	DRAINPLUG	SA 105	SA 105	SA 105	SA 105
26	SEALWIRE	SS	SS	SS	SS

## SOFT SEAT VALVE

27	DISK ASSEMBLY	3 16	APPLICATION	APPLICATION	APPLICATION
28	SEAT O-RING	SEE SEAT MAT'LS	DEPENDENT	DEPENDENT	DEPENDENT

## BELLOWS VALVE

29	BELLOWS ASSEMBLY	INCONEL® 625	INCONEL® 625	INCONEL® 625	INCONEL® 625
30	DISK HOLDER GASKET	SOFT IRON	ASME SA240 3 16	SOFT IRON	SOFT IRON

## OPEN LIFT LEVER ASSEMBLIES

23	CAP	CS	CS	CS	CS
31	NUT	CS	CS	CS	CS
32	WASHER	CS	CS	CS	CS
33	PIN	CS	CS	CS	CS
34	LEVER	CS	CS	CS	CS
35	TOP LEVER	CS	CS	CS	CS
36	COTTER PIN	CS	CS	CS	CS
37	HEX BOLT	SA 193 GR B7	SA 193 GR B7	SA 193 GR B7	SA 193 GR B7
38	CAP STUD	SA 193 GR B7	SA 193 GR B7	SA 193 GR B7	SA 193 GR B7
39	STUD NUT	SA 194 GR 2H	SA 194 GR 2H	SA 194 GR 2H	SA 194 GR 2H

## PACKED LIFT LEVER ASSEMBLY

31	NUT	SS	SS	SS	SS
32	WASHER	SS	SS	SS	SS
40	PACKING	ELASTOMER OR GRAPHITE	ELASTOMER OR GRAPHITE	ELASTOMER OR GRAPHITE	ELASTOMER OR GRAPHITE
41	PACKING NUT	SS	SS	SS	SS
31	NUT	SS	SS	SS	SS
42	SHAFT	CF8M	CF8M	CF8M	CF8M
43	LIFT DOG	CF8M	CF8M	CF8M	CF8M
34	HANDLE	CF8M	C	C	C
23	CAP	CS	CS	CS	CS
38	CAP STUD	SA 193 GR B7	SA 193 GR B7	SA 193 GR B7	SA 193 GR B7
39	STUD NUT	SA 194 GR 2H	SA 194 GR 2H	SA 194 GR 2H	SA 194 GR 2H

WCB/WCC - ASME SA 216  
CF8M - ASME SA 351

For higher set pressures Inconel or 17/7 SS may be substituted for 316 SS as applicable.

# BILLS OF MATERIALS

2500 MATERIALS

S1	S2	S3	M1	M2	H1	H2
CF8M	CF8M	CF8M	WCB	CF8M	WCB	CF8M
CF8M	CF8M	CF8M	WCB	CF8M	WCB	CF8M
3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	MONEL®	MONEL®	HASTELLOY® C	HASTELLOY® C
SS	T316	INCONEL® 750	CS	SS	CS	SS
3 16	3 16	3 16	SOFT IRON	3 16	SOFT IRON	3 16
3 16	3 16	3 16	3 16	3 16	3 16	3 16
SA240 3 16	SA240 3 16	SA240 3 16	SOFT IRON	SA240 3 16	SOFT IRON	SA240 3 16
3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M
3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	MONEL®	MONEL®	HASTELLOY®	HASTELLOY® C
T302	T302	INCONEL® X750	T302	T302	T302	T302
3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M	3 16 OR CF8M
17-4PH	A479 3 16	17-4PH	17-4PH	17-4PH	17-4PH	17-4PH
SA240 3 16	SA240 3 16	SA240 3 16	SOFT IRON	SA240 3 16	SOFT IRON	SA240 3 16
T302	T302	INCONEL® X750	T302	T302	T302	T302
A493 GR 302	A493 GR 302	A493 GR 302	A493 GR B7	A493 GR 302	A493 GR B7	A493 GR 302
SA 193 GR B8	SA 193 GR B8	SA 193 GR B8	SA 193 GR B7	SA 193 GR B8	SA 193 GR B7	SA 193 GR B8
SA 194 GR 8	SA 194 GR 8	SA 194 GR 8	SA 194 GR 2H	SA 194 GR 8	SA 194 GR 2H	SA 194 GR 8
3 16	3 16	3 16	3 16	3 16	3 16	3 16
3 16	3 16	3 16	3 16	3 16	3 16	3 16
3 16	3 16	3 16	3 16	3 16	3 16	3 16
3 16	3 16	3 16	PLATED CS	3 16	PLATED CS	3 16
3 16	3 16	3 16	PLATED CS	3 16	PLATED CS	3 16
3 16	3 16	3 16	ASTM A 108	3 16	ASTM A 108	3 16
SS	SS	SS	SS	SS	SS	SS
SA 182 F3 16	SA 182 F3 16	SA 182 F3 16	SA 105	SA 182 F3 16	SA 105	SA 182 F3 16
SS	SS	SS	SS	SS	SS	SS
3 16	APPLICATION	APPLICATION	APPLICATION	APPLICATION	APPLICATION	APPLICATION
SEE SEAT MAT'L	DEPENDENT	DEPENDENT	DEPENDENT	DEPENDENT	DEPENDENT	DEPENDENT
INCONEL® 625	INCONEL® 625	INCONEL® 625	INCONEL® 625	INCONEL® 625	INCONEL® 625	INCONEL® 625
ASME SA240 3 16	ASME SA240 3 16	ASME SA240 3 16	ASME SA240 3 16	ASME SA240 3 16	ASME SA240 3 16	ASME SA240 3 16
SS	SS	SS	CS	SS	CS	SS
SS	SS	SS	CS	SS	CS	SS
SS	SS	SS	CS	SS	CS	CS
SS	SS	SS	CS	SS	CS	SS
SS	SS	SS	CS	SS	CS	SS
SS	SS	SS	CS	SS	CS	SS
SS	SS	SS	CS	SS	CS	SS
SA 193 GRB8	SA 193 GRB8	SA 193 GRB8	SA 193 GR B7	SA 193 GRB8	SA 193 GR B7	SA 193 GRB8
SA 193 GRB8	SA 193 GRB8	SA 193 GRB8	SA 193 GR B7	SA 193 GRB8	SA 193 GR B7	SA 193 GRB8
SA 194 GR8	SA 194 GR8	SA 194 GR8	SA 194 GR 2H	SA 194 GR8	SA 194 GR 2H	SA 194 GR8
SS	SS	SS	SS	SS	SS	SS
SS	SS	SS	SS	SS	SS	SS
ELASTOMER OR GRAPHITE	ELASTOMER OR GRAPHITE	ELASTOMER OR GRAPHITE	ELASTOMER OR GRAPHITE	ELASTOMER OR GRAPHITE	ELASTOMER OR GRAPHITE	ELASTOMER OR GRAPHITE
SS	SS	SS	SS	SS	SS	SS
SS	SS	SS	SS	SS	SS	SS
CF8M	CF8M	CF8M	CF8M	CF8M	CF8M	CF8M
CF8M	CF8M	CF8M	CF8M	CF8M	CF8M	CF8M
CF8M	CF8M	CF8M	CF8M	CF8M	CF8M	CF8M
SS	SS	SS	SS	SS	SS	SS
SA 193 GRB8	SA 193 GRB8	SA 193 GRB8	SA 193 GRB8	SA 193 GRB8	SA 193 GRB8	SA 193 GRB8
SA 194 GR8	SA 194 GR8	SA 194 GR8	SA 194 GR8	SA 194 GR8	SA 194 GR8	SA 194 GR8

# D

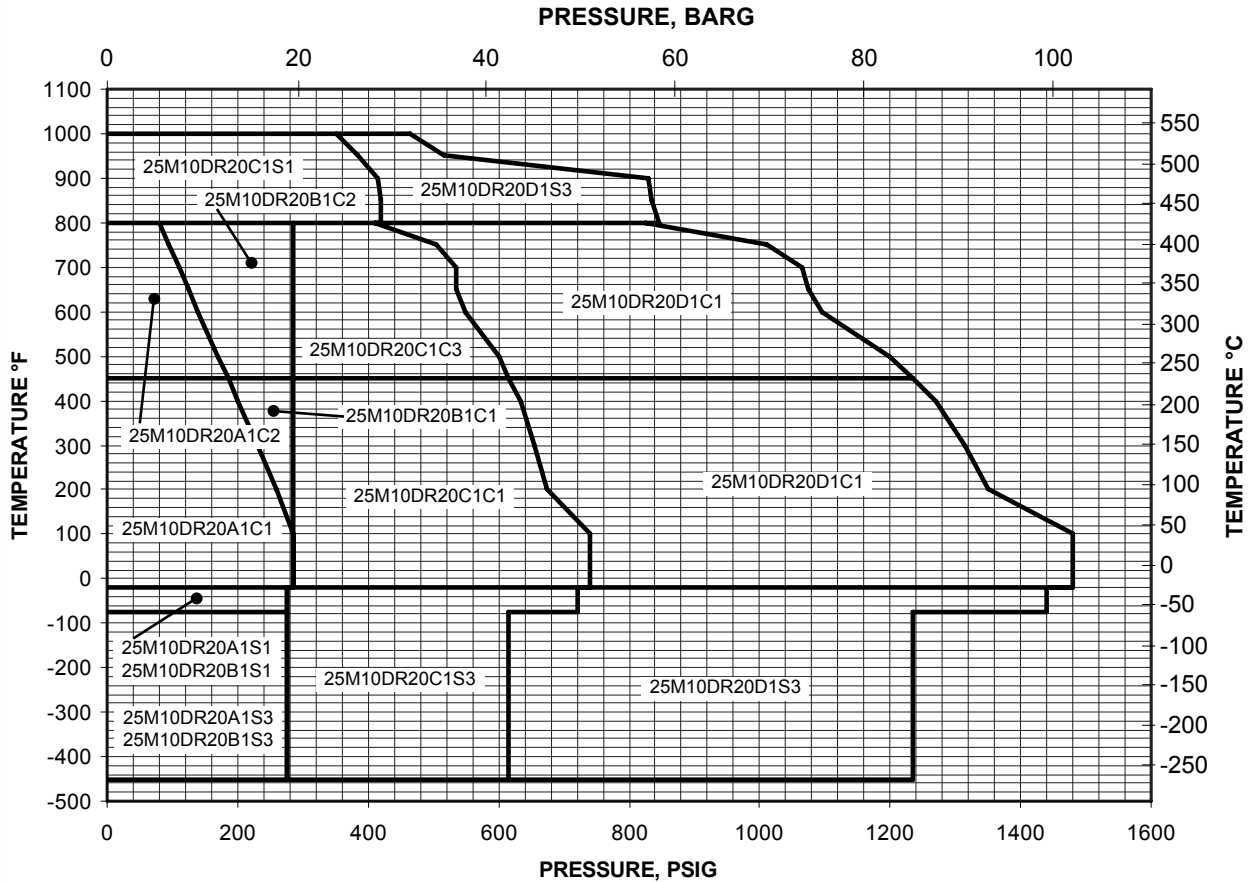
## ORIFICE

0.120 SQ. IN.

## PRESSURE TEMPERATURE LIMITS

### 2500 D ORIFICE

VALVE TYPE	SIZE	FLANGE RATINGS	MAXIMUM SET PRESSURE, PSIG									BACK PRESS. LIMIT, PSIG		MATERIAL	
			-450°F -75°F	-75°F -21°F	-20°F +100°F	200°F	300°F	400°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING
25*10DR20A	1 x 2	150# x 150#			285	260	230	200	185			285	230	CARBON STEEL	ALLOY STEEL
25*10DR20B	1 x 2	300# x 150#			285	285	285	285	285			285	230		
25*10DR20C	1 x 2	300# x 150#			740	675	655	635	615			285	230		
25*10DR20D	1 x 2	600# x 150#			1480	1350	1315	1270	1235			285	230		
25*10DR20A	1 x 2	150# x 150#							185	80		285	230	CARBON STEEL	HIGH TEMP ALLOY
25*10DR20B	1 x 2	300# x 150#							285	285		285	230		
25*10DR20C	1 x 2	300# x 150#							615	410		285	230		
25*10DR20D	1 x 2	600# x 150#							1235	825		285	230		
25*10DR20C	1 x 2	300# x 150#								420	350	285	230	316 ST. ST.	HIGH TEMP ALLOY
25*10DR20D	1 x 2	600# x 150#								845	465	285	230		
25*10DR20A	1 x 2	150# x 150#		275								275	230	316 ST. ST.	ALLOY STEEL
25*10DR20B	1 x 2	300# x 150#		275								275	230		
25*10DR20C	1 x 2	300# x 150#		720								275	230		
25*10DR20D	1 x 2	600# x 150#		1440								275	230		
25*10DR20A	1 x 2	150# x 150#	275									275	230	316 ST. ST.	316 ST. ST.
25*10DR20B	1 x 2	300# x 150#	275									275	230		
25*10DR20C	1 x 2	300# x 150#	615									275	230		
25*10DR20D	1 x 2	600# x 150#	1235									275	230		



Note: Bellows valves have a "B" prefix.



# PRESSURE TEMPERATURE CHART 2500 E ORIFICE

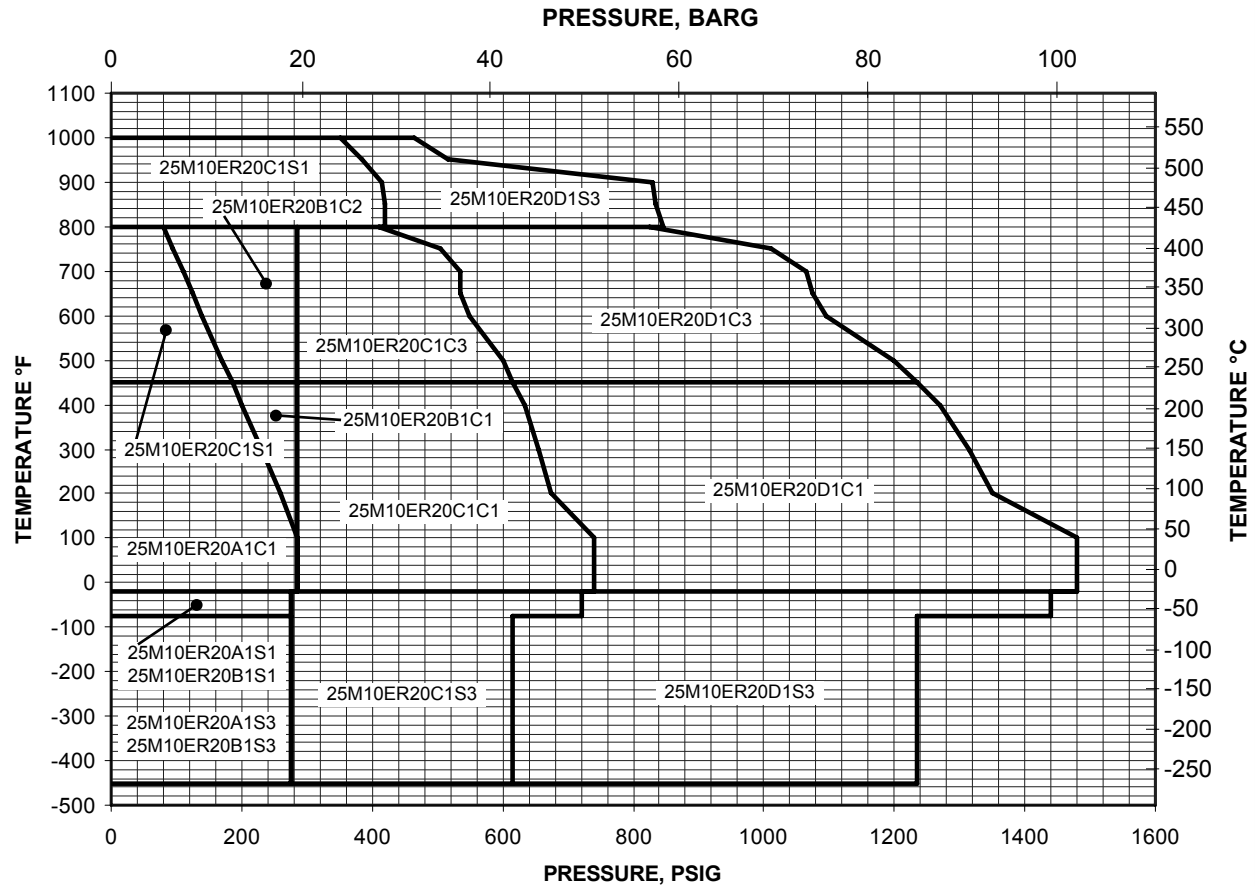
# ORIFICE



0.227 SQ. IN.

2500 ORIFICE SELECTION

VALVE TYPE	SIZE	FLANGE RATINGS	MAXIMUM SET PRESSURE, PSIG							BACK PRESS. LIMIT, PSIG		MATERIAL		
			-450°F -75°F	-75°F -21°F	-20°F +100°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING		
25*10ER20A	1 x 2	150# x 150#			285	185					285	230	CARBON STEEL	ALLOY STEEL
25*10ER20B	1 x 2	300# x 150#			285	285				285	230			
25*10ER20C	1 x 2	300# x 150#			740	615				285	230			
25*10ER20D	1 x 2	600# x 150#			1480	1235				285	230			
25*10ER20A	1 x 2	150# x 150#				185	80				285	230	CARBON STEEL	HIGH TEMP ALLOY
25*10ER20B	1 x 2	300# x 150#				285	285			285	230			
25*10ER20C	1 x 2	300# x 150#				615	410			285	230			
25*10ER20D	1 x 2	600# x 150#				1235	825			285	230			
25*10ER20C	1 x 2	300# x 150#						420	350	285	230	316 ST. ST.	HIGH TEMP ALLOY	
25*10ER20D	1 x 2	600# x 150#						845	465	285	230	316 ST. ST.	HIGH TEMP ALLOY	
25*10ER20A	1 x 2	150# x 150#		275							275	230	316 ST. ST.	ALLOY STEEL
25*10ER20B	1 x 2	300# x 150#		275							275	230		
25*10ER20C	1 x 2	300# x 150#		720							275	230		
25*10ER20D	1 x 2	600# x 150#		1440							275	230		
25*10ER20A	1 x 2	150# x 150#	275								275	230	316 ST. ST.	316 ST. ST.
25*10ER20B	1 x 2	300# x 150#	275								275	230		
25*10ER20C	1 x 2	300# x 150#	615								275	230		
25*10ER20D	1 x 2	600# x 150#	1235								275	230		



Note: Bellows valves have a "B" prefix.

# F

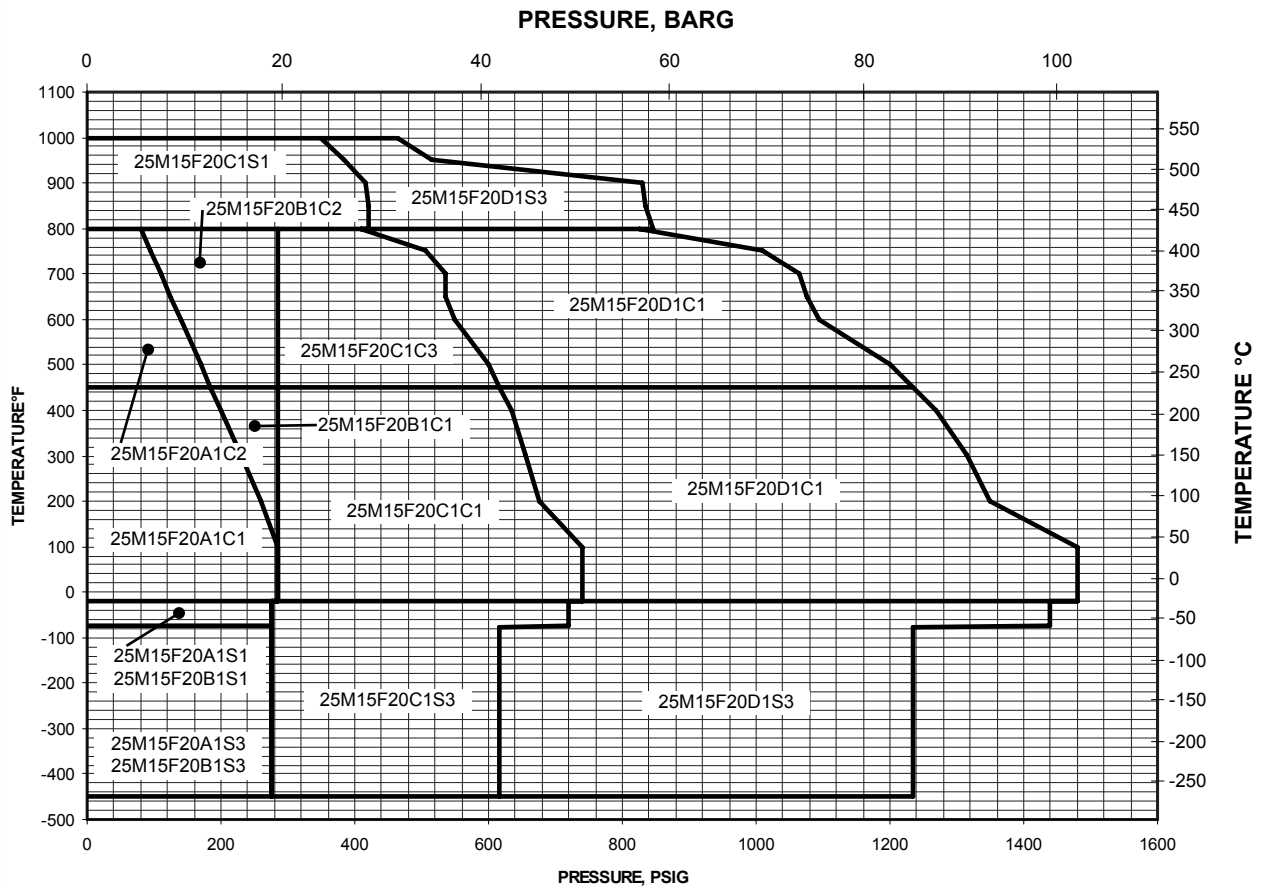
# ORIFICE

0.317 SQ. IN.

# PRESSURE TEMPERATURE LIMITS 2500 F ORIFICE

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL	
	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.	-450°F -75°F	-75°F -21°F	-20°F +100°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING
25*15F20A	1 1/2	2	150#	150#			285	185			285	230	CARBON STEEL	ALLOY STEEL
25*15F20B	1 1/2	2	300#	150#			285	285			285	230		
25*15F20C	1 1/2	2	300#	150#			740	615			285	230		
25*15F20D	1 1/2	2	600#	150#			1480	1235			285	230		
25*15F20A	1 1/2	2	150#	150#				185	80		285	230	CARBON STEEL	HIGH TEMP ALLOY
25*15F20B	1 1/2	2	300#	150#				285	285		285	230		
25*15F20C	1 1/2	2	300#	150#				615	410		285	230		
25*15F20D	1 1/2	2	600#	150#				1235	825		285	230		
25*15F20C	1 1/2	2	300#	150#					420	350	285	230	316 ST. ST.	HIGH TEMP ALLOY
25*15F20D	1 1/2	2	600#	150#					845	465	285	230		
25*15F20A	1 1/2	2	150#	150#		275					275	230	316 ST. ST.	ALLOY STEEL
25*15F20B	1 1/2	2	300#	150#		275					275	230		
25*15F20C	1 1/2	2	300#	150#		720					275	230		
25*15F20D	1 1/2	2	600#	150#		1440					275	230		
25*15F20A	1 1/2	2	150#	150#	275						275	230	316 ST. ST.	316 ST. ST.
25*15F20B	1 1/2	2	300#	150#	275						275	230		
25*15F20C	1 1/2	2	300#	150#	615						275	230		
25*15F20D	1 1/2	2	600#	150#	1235						275	230		



Note: Bellows valves have a "B" prefix.

# PRESSURE TEMPERATURE LIMITS 2500 G ORIFICE

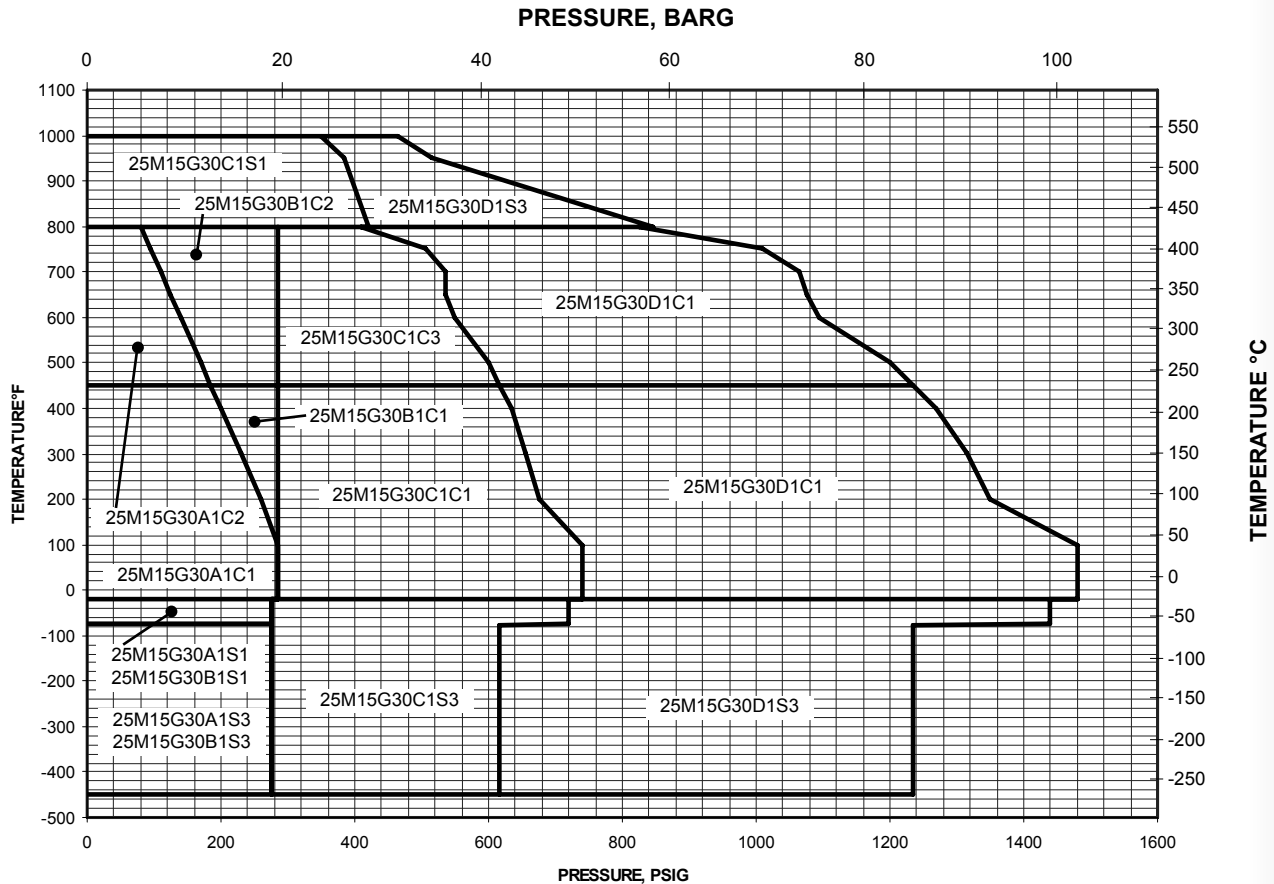
# ORIFICE

# G

0.568 SQ. IN.

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL	
	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.	-450°F -75°F	-75°F -21°F	-20°F +100°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING
25*15G30A	1 1/2	3	150#	150#			285	185			285	230	CARBON STEEL	ALLOY STEEL
25*15G30B	1 1/2	3	300#	150#			285	285			285	230		
25*15G30C	1 1/2	3	300#	150#			740	615			285	230		
25*15G30D	1 1/2	3	600#	150#			1480	1235			285	230		
25*15G30A	1 1/2	3	150#	150#				185	80		285	230	CARBON STEEL	HIGH TEMP ALLOY
25*15G30B	1 1/2	3	300#	150#				285	285		285	230		
25*15G30C	1 1/2	3	300#	150#				615	410		285	230		
25*15G30D	1 1/2	3	600#	150#				1235	825		285	230		
25*15G30C	1 1/2	3	300#	150#					420	350	285	230	316	HIGH TEMP ALLOY
25*15G30D	1 1/2	3	600#	150#					845	465	285	230	316 ST. ST.	
25*15G30A	1 1/2	3	150#	150#		275					275	230	316 ST. ST.	ALLOY STEEL
25*15G30B	1 1/2	3	300#	150#		275					275	230		
25*15G30C	1 1/2	3	300#	150#		720					275	230		
25*15G30D	1 1/2	3	600#	150#		1440					275	230		
25*15G30A	1 1/2	3	150#	150#	275						275	230	316 ST. ST.	316 ST. ST.
25*15G30B	1 1/2	3	300#	150#	275						275	230		
25*15G30C	1 1/2	3	300#	150#	615						275	230		
25*15G30D	1 1/2	3	600#	150#	1235						275	230		



Note: Bellows valves have a "B" prefix.

# H

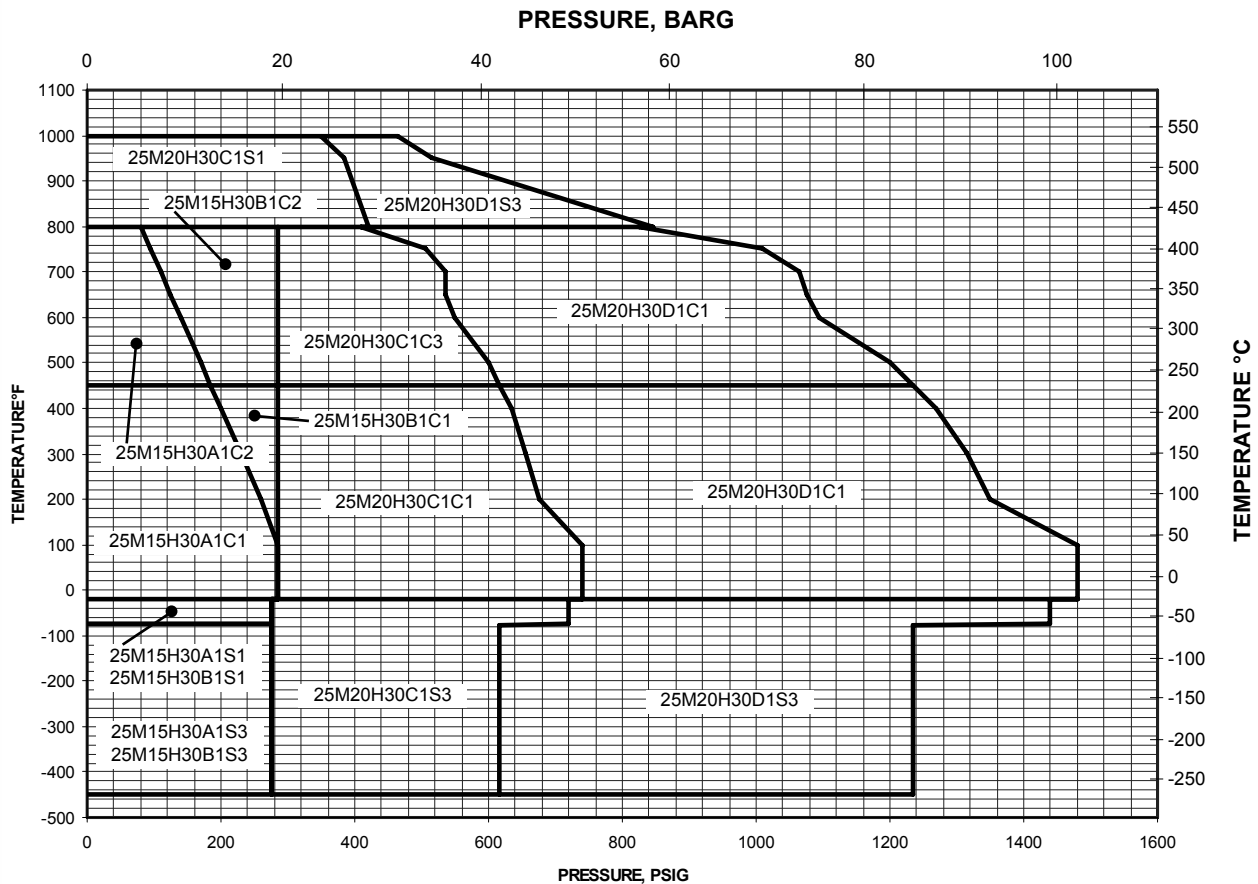
## ORIFICE

0.911 SQ. IN.

## PRESSURE TEMPERATURE LIMITS 2500 H ORIFICE

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL	
	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.	-450°F -75°F	-75°F -21°F	-20°F +100°F	450° F	800° F	1000° F	STD	BLWS	BODY	SPRING
25*15H30A	1 1/2	3	150#	150#			285	185			285	230	CARBON STEEL	ALLOY STEEL
25*15H30B	1 1/2	3	300#	150#			285	285			285	230		
25*20H30C	2	3	300#	150#			740	615			285	230		
25*20H30D	2	3	600#	150#			1480	1235			285	230		
25*15H30A	1 1/2	3	150#	150#				185	80		285	230	CARBON STEEL	HIGH TEMP ALLOY
25*15H30B	1 1/2	3	300#	150#				285	285		285	230		
25*20H30C	2	3	300#	150#				615	410		285	230		
25*20H30D	2	3	600#	150#				1235	825		285	230		
25*20H30C	2	3	300#	150#					420	350	285	230	316 ST. ST.	HIGH TEMP ALLOY
25*20H30D	2	3	600#	150#					845	465	285	230	316 ST. ST.	HIGH TEMP ALLOY
25*15H30A	1 1/2	3	150#	150#		275					275	230	316 ST. ST.	ALLOY STEEL
25*15H30B	1 1/2	3	300#	150#		275					275	230		
25*20H30C	2	3	300#	150#		720					275	230		
25*20H30D	2	3	600#	150#		1440					275	230		
25*15H30A	1 1/2	3	150#	150#	275						275	230	316 ST. ST.	316 ST. ST.
25*15H30B	1 1/2	3	300#	150#	275						275	230		
25*20H30C	2	3	300#	150#	615						275	230		
25*20H30D	2	3	600#	150#	1235						275	230		



Note: Bellows valves have a "B" prefix.

# PRESSURE TEMPERATURE LIMITS 2500 J ORIFICE

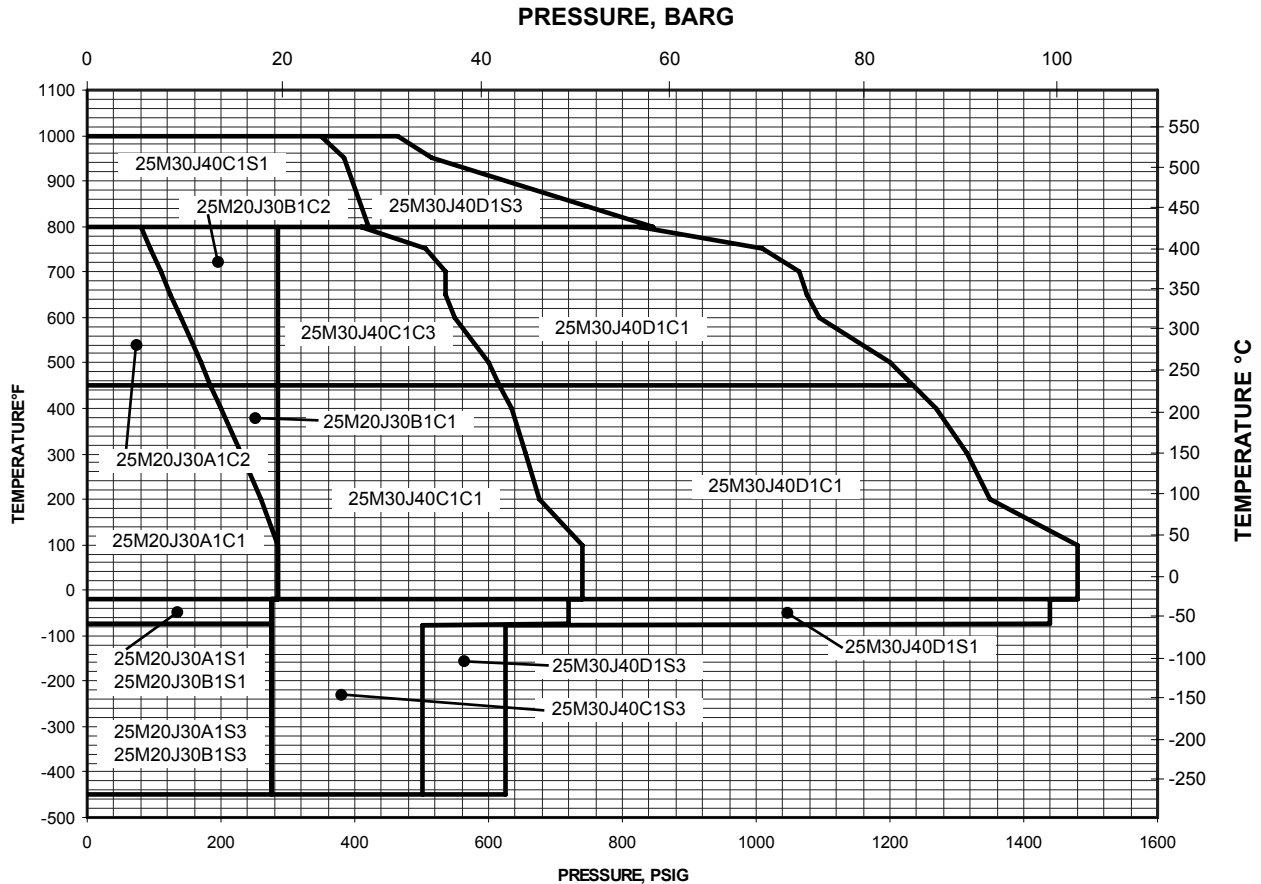
# ORIFICE

1.457 SQ. IN.

# J

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL		
					-450°F -75°F	-75°F -21°F	-20°F +100°F	450° F	800° F	1000° F	STD	BLWS	BODY	SPRING	
25*20J30A	2	3	150#	150#			285	185				285	230	CARBON STEEL	ALLOY STEEL
25*20J30B	2	3	300#	150#			285	285				285	230		
25*30J40C	3	4	300#	150#			740	615				285	230		
25*30J40D	3	4	600#	150#			1480	1235				285	230		
25*20J30A	2	3	150#	150#				185	80			285	230	CARBON STEEL	HIGH TEMP ALLOY
25*20J30B	2	3	300#	150#				285	285			285	230		
25*30J40C	3	4	300#	150#				615	410			285	230		
25*30J40D	3	4	600#	150#				1235	825			285	230		
25*30J40C	3	4	300#	150#					420	350		285	230	316	HIGH TEMP ALLOY
25*30J40D	3	4	600#	150#					845	465		285	230	ST. ST.	ALLOY
25*20J30A	2	3	150#	150#		275						275	230	316 ST. ST.	ALLOY STEEL
25*20J30B	2	3	300#	150#		275						275	230		
25*30J40C	3	4	300#	150#		720						275	230		
25*30J40D	3	4	600#	150#		1440						275	230		
25*20J30A	2	3	150#	150#	275							275	230	316 ST. ST.	316 ST. ST.
25*20J30B	2	2	300#	150#	275							275	230		
25*30J40C	3	4	300#	150#	500							275	230		
25*30J40D	3	4	600#	150#	625							275	230		



Note: Bellows valves have a "B" prefix.

# K

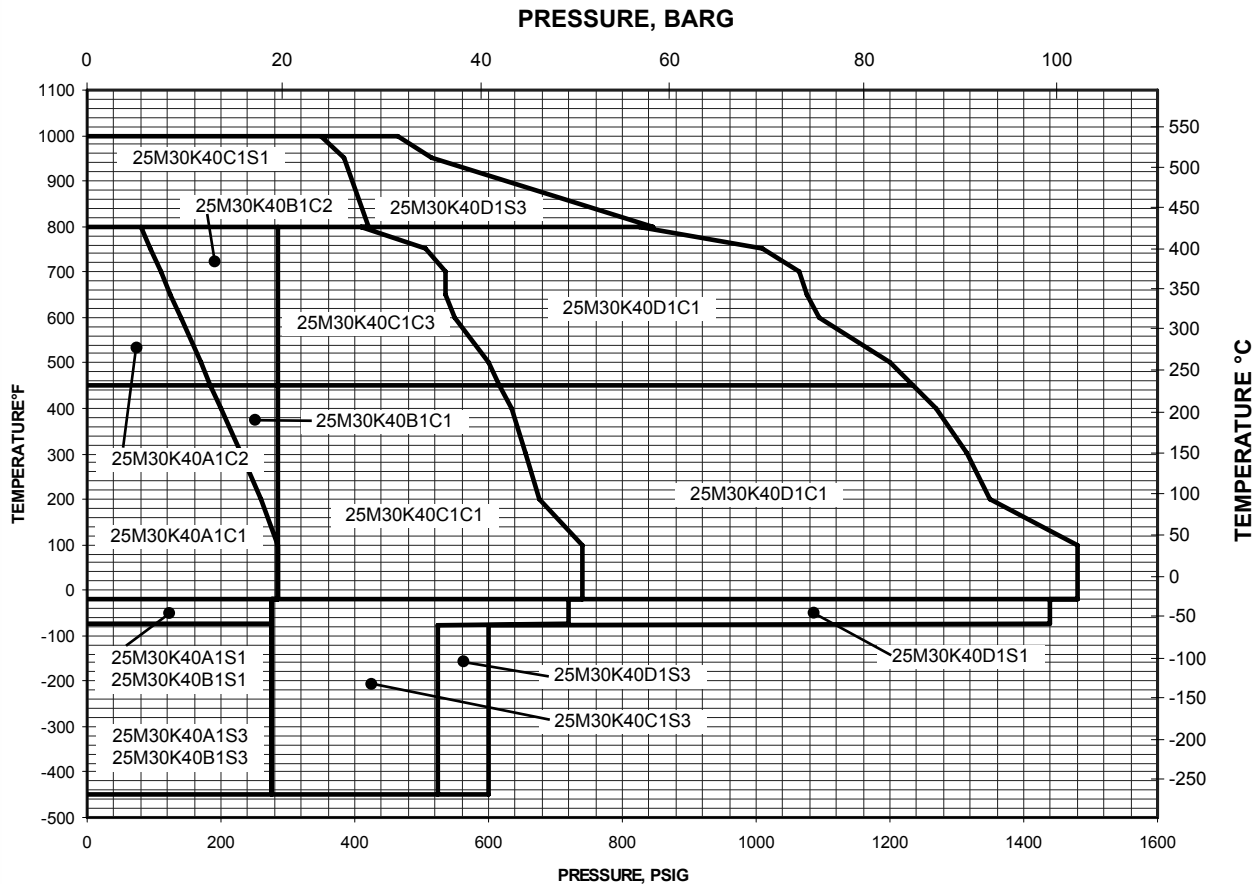
## ORIFICE

2.125 SQ. IN.

## PRESSURE TEMPERATURE LIMITS 2500 K ORIFICE

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL		
	STANDARD	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.	-450°F -75°F	-75°F -21°F	-20°F +100°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING
25*30K40A	3	4	4	150#	150#			285	185			285	230	CARBON STEEL	ALLOY STEEL
25*30K40B	3	4	4	300#	150#			285	285			285	230		
25*30K40C	3	4	4	300#	150#			740	615			285	230		
25*30K40D	3	4	4	600#	150#			1480	1235			285	230		
25*30K40A	3	4	4	150#	150#				185	80		285	230	CARBON STEEL	HIGH TEMP ALLOY
25*30K40B	3	4	4	300#	150#				285	285		285	230		
25*30K40C	3	4	4	300#	150#				615	410		285	230		
25*30K40D	3	4	4	600#	150#				1235	825		285	230		
25*30K40C	3	4	4	300#	150#					420	350	285	230	316 ST. ST.	HIGH TEMP ALLOY
25*30K40D	3	4	4	600#	150#					845	465	285	230		
25*30K40A	3	4	4	150#	150#		275					275	230	316 ST. ST.	ALLOY STEEL
25*30K40B	3	4	4	300#	150#		275					275	230		
25*30K40C	3	4	4	300#	150#		720					275	230		
25*30K40D	3	4	4	600#	150#		1440					275	230		
25*30K40A	3	4	4	150#	150#	275						275	230	316 ST. ST.	316 ST. ST.
25*30K40B	3	4	4	300#	150#	275						275	230		
25*30K40C	3	4	4	300#	150#	525						275	230		
25*30K40D	3	4	4	600#	150#	600						275	230		



Note: Bellows valves have a "B" prefix.

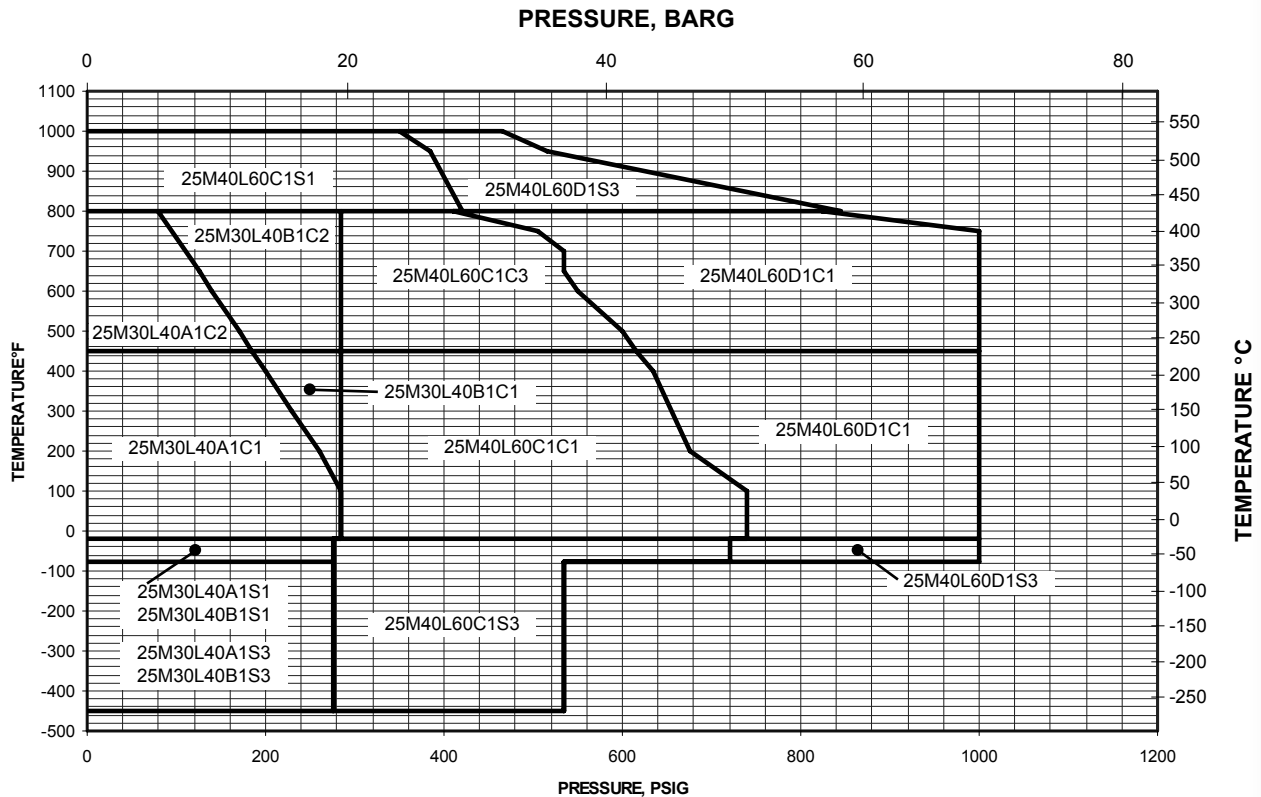
# PRESSURE TEMPERATURE LIMITS 2500 L ORIFICE

# ORIFICE

3.281 SQ. IN.

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL		
					-450°F -75°F	-75°F -21°F	-20°F +100°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING	
STANDARD	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.											
25*30L40A	3	4	150#	150#			285	185				285	230	CARBON STEEL	ALLOY STEEL
25*30L40B	3	4	300#	150#			285	285				285	230		
25*40L60C	4	6	300#	150#			740	615				285	230		
25*40L60D	4	6	600#	150#			1000	1000				285	230		
25*30L40A	3	4	150#	150#				185	80			285	230	CARBON STEEL	HIGH TEMP ALLOY
25*30L40B	3	4	300#	150#				285	285			285	230		
25*40L60C	4	6	300#	150#				615	410			285	230		
25*40L60D	4	6	600#	150#				1000	825			285	230		
25*40L60C	4	6	300#	150#					420	350		285	230	316 ST. ST.	HIGH TEMP ALLOY
25*40L60D	4	6	600#	150#					845	465		285	230		
25*30L40A	3	4	150#	150#		275						275	230	316 ST. ST.	ALLOY STEEL
25*30L40B	3	4	300#	150#		275						275	230		
25*40L60C	4	6	300#	150#		720						275	230		
25*40L60D	4	6	600#	150#		1000						275	230		
25*30L40A	3	4	150#	150#	275							275	230	316 ST. ST.	316 ST. ST.
25*30L40B	3	4	300#	150#	275							275	230		
25*40L60C	4	6	300#	150#	535							275	230		
25*40L60D	4	6	600#	150#	535							275	230		



Note: Bellows valves have a "B" prefix.

# M

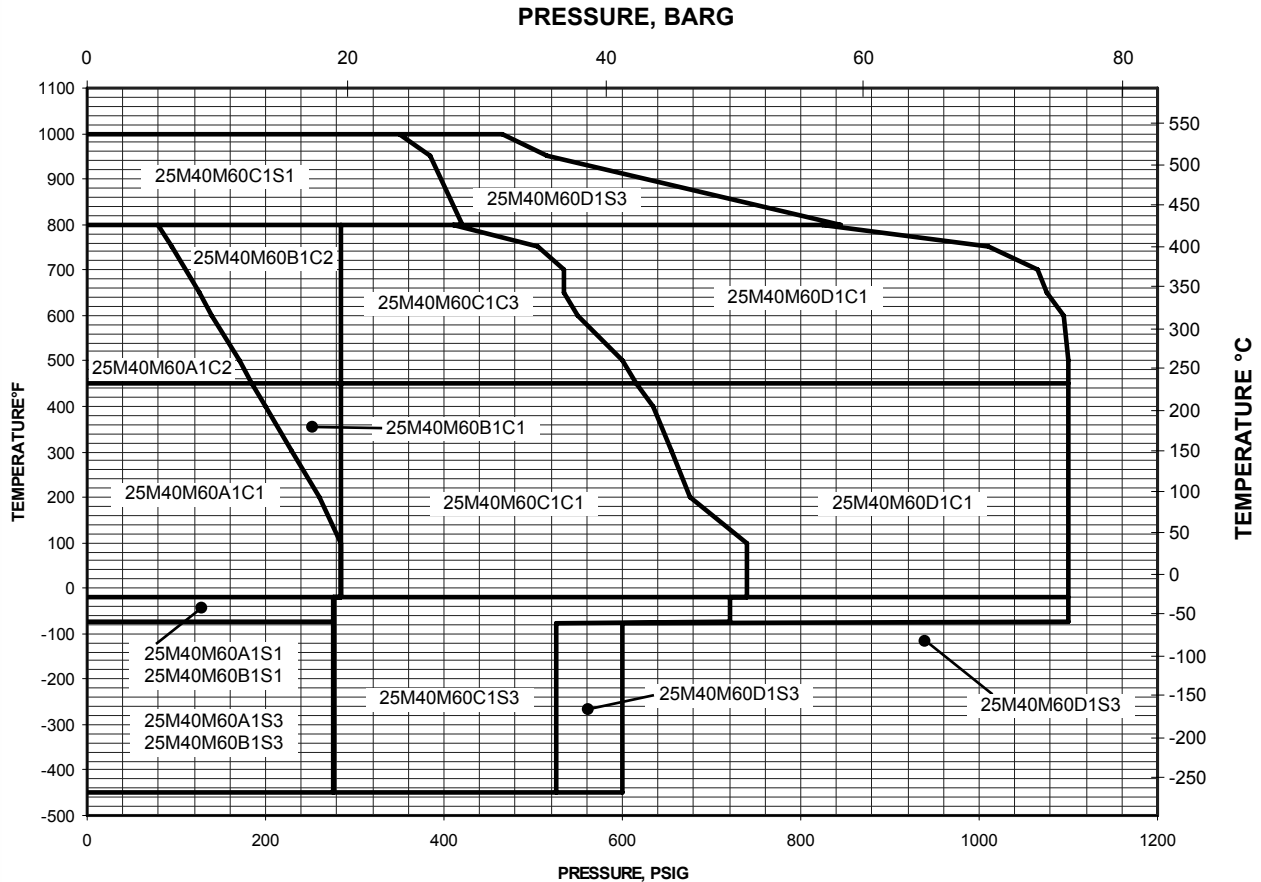
# ORIFICE

4.047 SQ. IN.

# PRESSURE TEMPERATURE LIMITS 2500 M ORIFICE

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL		
	STANDARD	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.	-450°F -75°F	-75°F -21°F	-20°F +100°F	450° F	800° F	1000° F	STD	BLWS	BODY	SPRING
25*40*60A	4	6	6	150#	150#			285	185			285	230	CARBON STEEL	ALLOY STEEL
25*40*60B	4	6	6	300#	150#			285	285			285	230		
25*40*60C	4	6	6	300#	150#			740	615			285	230		
25*40*60D	4	6	6	600#	150#			1100	1100			285	230		
25*40*60A	4	6	6	150#	150#				185	80		285	230	CARBON STEEL	HIGH TEMP ALLOY
25*40*60B	4	6	6	300#	150#				285	285		285	230		
25*40*60C	4	6	6	300#	150#				615	410		285	230		
25*40*60D	4	6	6	600#	150#				1100	825		285	230		
25*40*60C	4	6	6	300#	150#					420	350	285	230	316 ST. ST.	HIGH TEMP ALLOY
25*40*60D	4	6	6	600#	150#					845	465	285	230		
25*40*60A	4	6	6	150#	150#		275					275	230	316 ST. ST.	ALLOY STEEL
25*40*60B	4	6	6	300#	150#		275					275	230		
25*40*60C	4	6	6	300#	150#		720					275	230		
25*40*60D	4	6	6	600#	150#		1100					275	230		
25*40*60A	4	6	6	150#	150#	275						275	230	316 ST. ST.	316 ST.
25*40*60B	4	6	6	300#	150#	275						275	230		
25*40*60C	4	6	6	300#	150#	525						275	230		
25*40*60D	4	6	6	600#	150#	600						275	230		



Note: Bellows valves have a "B" prefix.



# PRESSURE TEMPERATURE LIMITS 2500 N ORIFICE

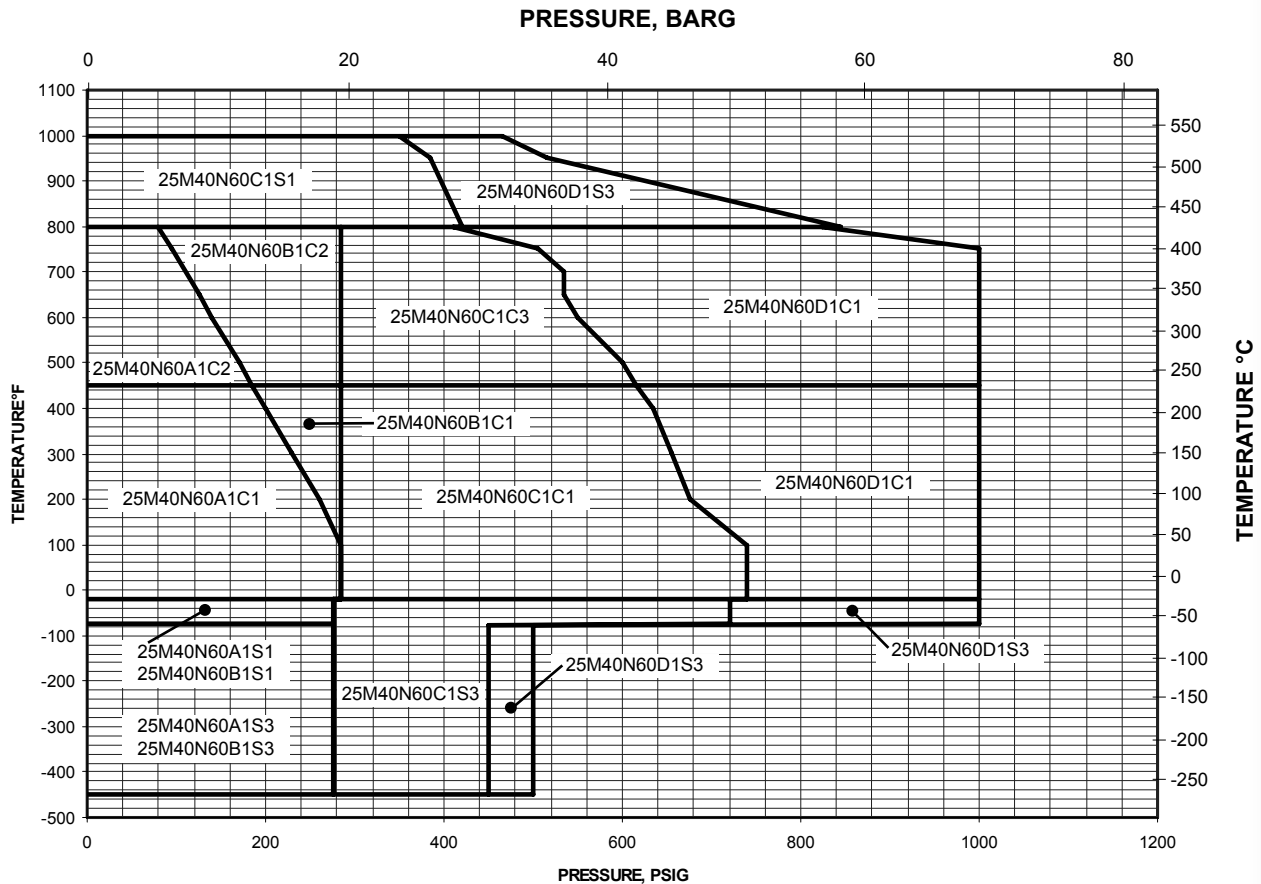
# ORIFICE

# N

4.988 SQ. IN.

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG					BACK PRESS. LIMIT, PSIG		MATERIAL		
					-450°F -75°F	-75°F -21°F	-20°F +100°F	450° F	800° F	1000° F	STD	BLWS	BODY	SPRING
STANDARD	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.										
25°40N60A	4	6	150#	150#			285	185			285	230	CARBON STEEL	ALLOY STEEL
25°40N60B	4	6	300#	150#			285	285			285	230		
25°40N60C	4	6	300#	150#			740	615			285	230		
25°40N60D	4	6	600#	150#			1000	1000			285	230		
25°40N60A	4	6	150#	150#				185	80		285	230	CARBON STEEL	HIGH TEMP ALLOY
25°40N60B	4	6	300#	150#				285	285		285	230		
25°40N60C	4	6	300#	150#				615	410		285	230		
25°40N60D	4	6	600#	150#				1000	825		285	230		
25°40N60C	4	6	300#	150#					420	350	285	230	316 ST. ST.	HIGH TEMP ALLOY
25°40N60D	4	6	600#	150#					845	465	285	230		
25°40N60A	4	6	150#	150#		275					275	230	316 ST. ST.	ALLOY STEEL
25°40N60B	4	6	300#	150#		275					275	230		
25°40N60C	4	6	300#	150#		720					275	230		
25°40N60D	4	6	600#	150#		1000					275	230		
25°40N60A	4	6	150#	150#	275						275	230	316 ST. ST.	316 ST. ST.
25°40N60B	4	6	300#	150#	275						275	230		
25°40N60C	4	6	300#	150#	450						275	230		
25°40N60D	4	6	600#	150#	500						275	230		



Note: Bellows valves have a "B" prefix.

# P

# ORIFICE

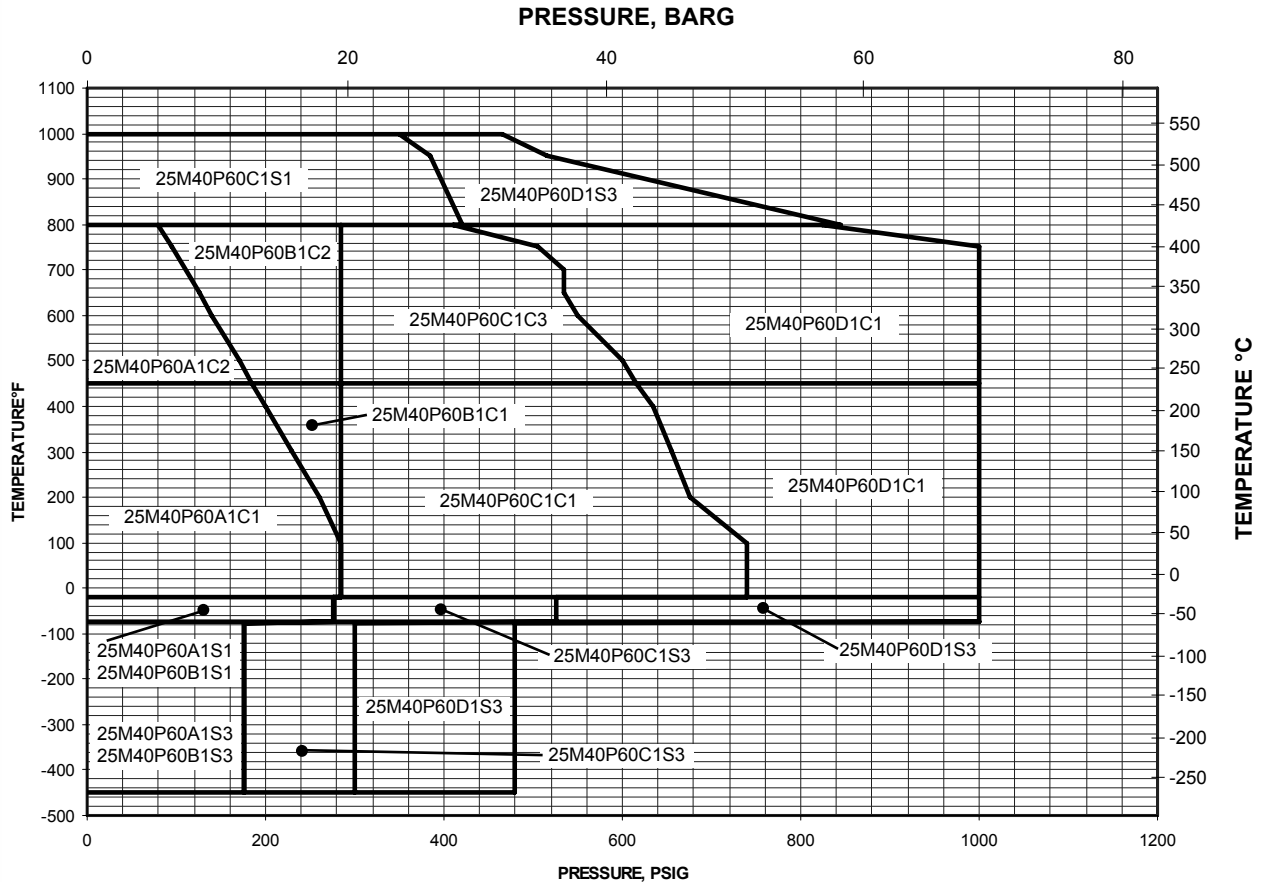
7.330 SQ. IN.

# PRESSURE TEMPERATURE LIMITS

# 2500 P ORIFICE

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL	
	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.	-450°F -75°F	-75°F -21°F	-20°F +100°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING
25*40P60A	4	6	150#	150#			285	185			285	230	CARBON STEEL	ALLOY STEEL
25*40P60B	4	6	300#	150#			285	285			285	230		
25*40P60C	4	6	300#	150#			740	615			285	230		
25*40P60D	4	6	600#	150#			1000	1000			285	230		
25*40P60A	4	6	150#	150#				185	80		285	230	CARBON STEEL	HIGH TEMP ALLOY
25*40P60B	4	6	300#	150#				285	285		285	230		
25*40P60C	4	6	300#	150#				615	410		285	230		
25*40P60D	4	6	600#	150#				1000	825		285	230		
25*40P60C	4	6	300#	150#					420	350	285	230	316 ST. ST.	HIGH TEMP ALLOY
25*40P60D	4	6	600#	150#					845	465	285	230		
25*40P60A	4	6	150#	150#		275					275	230	316 ST. ST.	ALLOY STEEL
25*40P60B	4	6	300#	150#		275					275	230		
25*40P60C	4	6	300#	150#		525					275	230		
25*40P60D	4	6	600#	150#		1000					275	230		
25*40P60A	4	6	150#	150#	175						275	230	316 ST. ST.	316 ST. ST.
25*40P60B	4	6	300#	150#	175						275	230		
25*40P60C	4	6	300#	150#	300						275	230		
25*40P60D	4	6	600#	150#	480						275	230		



Note: Bellows valves have a "B" prefix.

# PRESSURE TEMPERATURE LIMITS 2500 Q ORIFICE

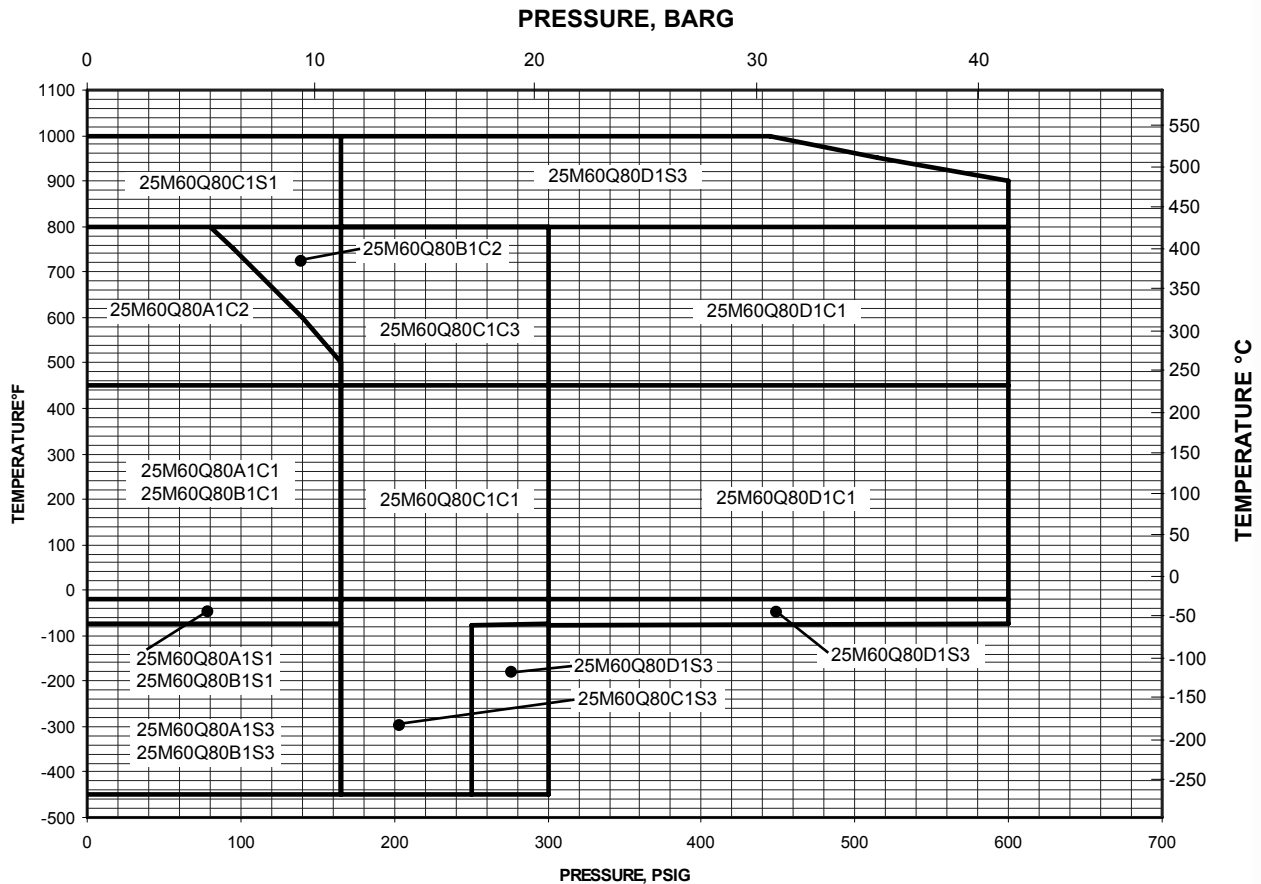
# ORIFICE



12.699 SQ. IN.

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL		
					-450°F -75°F	-75°F -21°F	-20°F +100°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING	
STANDARD	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.											
25*60Q80A	6	8	150#	150#			165	165				285	230	CARBON STEEL	ALLOY STEEL
25*60Q80B	6	8	300#	150#			165	165				285	230		
25*60Q80C	6	8	300#	150#			300	300				285	230		
25*60Q80D	6	8	600#	150#			600	600				285	230		
25*60Q80A	6	8	150#	150#				165	80			285	230	CARBON STEEL	HIGH TEMP ALLOY
25*60Q80B	6	8	300#	150#				165	165			285	230		
25*60Q80C	6	8	300#	150#				300	300			285	230		
25*60Q80D	6	8	600#	150#				600	600			285	230		
25*60Q80C	6	8	300#	150#					165	165		285	230	316 ST. ST.	HIGH TEMP ALLOY
25*60Q80D	6	8	600#	150#					600	445		285	230		
25*60Q80A	6	8	150#	150#		165						275	230	316 ST. ST.	ALLOY STEEL
25*60Q80B	6	8	300#	150#		165						275	230		
25*60Q80C	6	8	300#	150#		300						275	230		
25*60Q80D	6	8	600#	150#		600						275	230		
25*60Q80A	6	8	150#	150#	165							275	230	316 ST. ST.	316 ST. ST.
25*60Q80B	6	8	300#	150#	165							275	230		
25*60Q80C	6	8	300#	150#	250							275	230		
25*60Q80D	6	8	600#	150#	300							275	230		



Note: Bellows valves have a "B" prefix.

# R

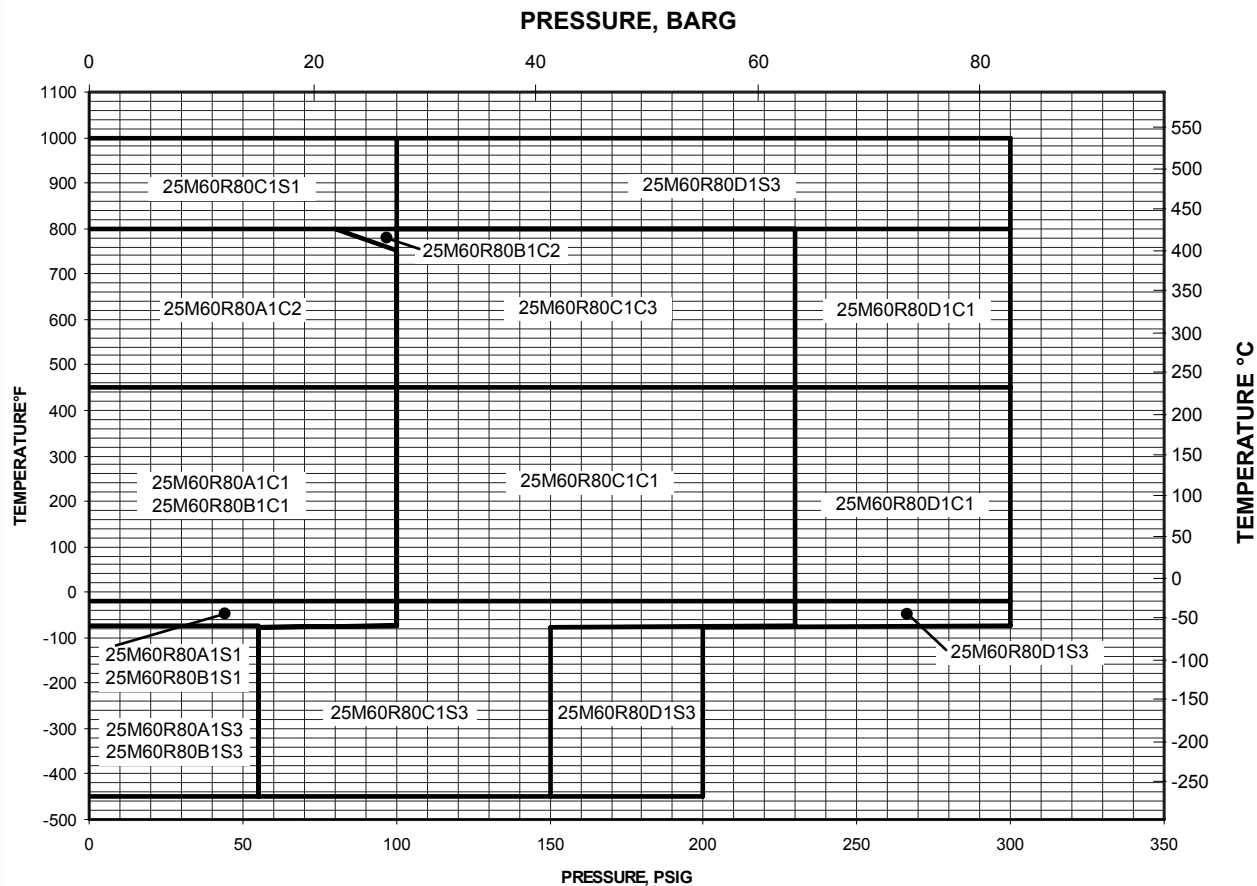
# ORIFICE

18.383 SQ. IN.

# PRESSURE TEMPERATURE LIMITS 2500 R ORIFICE

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL	
	INLET	OUTLET	INLET R.F. or R.J.	OUTLET R.F.	-450°F 75°F	-75°F -21°F	-20°F +100°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING
25*60R80A	6	8	150#	150#			100	100			285	230	CARBON STEEL	ALLOY STEEL
25*60R80B	6	8	300#	150#			100	100			285	230		
25*60R80C	6	8	300#	150#			230	230			285	230		
25*60R80D	6	8	600#	150#			300	300			285	230		
25*60R80A	6	8	150#	150#				100	80		285	230	CARBON STEEL	HIGH TEMP ALLOY
25*60R80B	6	8	300#	150#				100	100		285	230		
25*60R80C	6	8	300#	150#				230	230		285	230		
25*60R80D	6	8	600#	150#				300	300		285	230		
25*60R80C	6	8	300#	150#					100	100	285	230	316 ST. ST.	HIGH TEMP ALLOY
25*60R80D	6	8	600#	150#					300	300	285	230		
25*60R80A	6	8	150#	150#		100					275	230	316 ST. ST.	ALLOY STEEL
25*60R80B	6	8	300#	150#		100					275	230		
25*60R80C	6	8	300#	150#		230					275	230		
25*60R80D	6	8	600#	150#		300					275	230		
25*60R80A	6	8	150#	150#	55						275	230	316 ST. ST.	316 ST. ST.
25*60R80B	6	8	300#	150#	55						275	230		
25*60R80C	6	8	300#	150#	150						275	230		
25*60R80D	6	8	600#	150#	200						275	230		



Note: Bellows valves have a "B" prefix.

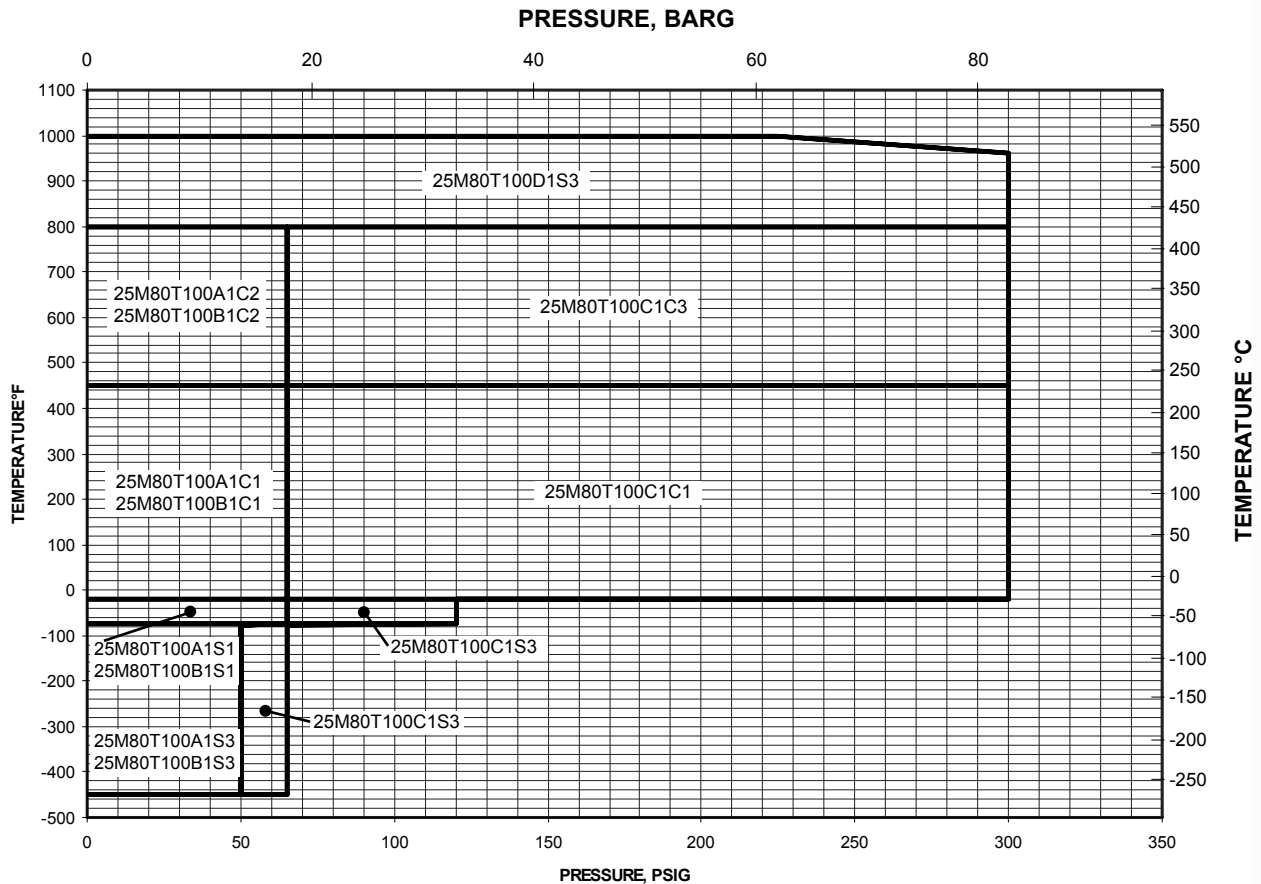
# PRESSURE TEMPERATURE LIMITS 2500 T ORIFICE

# ORIFICE T

28.274 SQ. IN.

2500 ORIFICE SELECTION

VALVE TYPE NUMBER	VALVE SIZE		ANSI FLANGE RATINGS		MAXIMUM SET PRESSURE, PSIG						BACK PRESS. LIMIT, PSIG		MATERIAL		
					-450°F -75°F	-75°F -21°F	-20°F +100°F	450°F	800°F	1000°F	STD	BLWS	BODY	SPRING	
25*80T100A	8	10	150#	150#			65	65				285	230	CARBON STEEL	ALLOY STEEL
25*80T100B	8	10	300#	150#			285	285				285	230		
25*80T100C	8	10	300#	150#			740	615				285	230		
25*80T100A	8	10	150#	150#				185	65			285	230	CARBON STEEL	HIGH TEMP ALLOY
25*80T100B	8	10	300#	150#				285	285			285	230		
25*80T100C	8	10	300#	150#				615	410			285	230		
25*80T100C	8	10	300#	150#					420	225		285	230	316 ST.	HIGH TEMP ALLOY
25*80T100A	8	10	150#	150#		65						275	230	316 ST. ST.	ALLOY STEEL
25*80T100B	8	10	300#	150#		275						275	230		
25*80T100C	8	10	300#	150#		720						275	230		
25*80T100A	8	10	150#	150#	50							275	230	316 ST. ST.	316 ST. ST.
25*80T100B	8	10	300#	150#	50							275	230		
25*80T100C	8	10	300#	150#	65							275	230		



Note: Bellows valves have a "B" prefix.









Set Pressure	D* 0.120	E* 0.227	F 0.317	G 0.568	H 0.911	J 1.457	K 2.125	L 3.281						
# Incr.	2.1	4.0	5.6	10.0	16.1	25.8	37.6	58.1						
1155	2481	4699	6551	11739	18844	30136	43961	67873						
1160	2491	4719	6579	11789	18924	30265	44150	68164						
1165	2502	4739	6607	11839	19005	30394	44338	68454						
1170	2512	4759	6635	11889	19086	30523	44526	68744						
1175	2523	4779	6663	11940	19166	30652	44714	69035						
1180	2534	4799	6691	11990	19247	30781	44902	69325						
1185	2544	4819	6719	12040	19328	30909	45090	69616						
1190	2555	4840	6747	12090	19408	31038	45278	69906						
1195	2565	4860	6775	12141	19489	31167	45466	70197						
1200	2576	4880	6803	12191	19570	31296	45655	70487						
1205	2587	4900	6831	12241	19650	31425	45843	70778						
1210	2597	4920	6859	12291	19731	31554	46031	71068						
1215	2608	4940	6887	12341	19812	31683	46219	71359						
1220	2619	4960	6915	12392	19892	31812	46407	71649						
1225	2629	4980	6943	12442	19973	31941	46595	71940						
1230	2640	5000	6971	12492	20053	32070	46783	72230						
1235	2650	5021	6999	12542	20134	32199	46972	72520						
1240	2661	5041	7027	12593	20215	32328	47160	72811						
1245	2672	5061	7055	12643	20295	32457	47348	73101						
1250	2682	5081	7084	12693	20376	32586	47536	73392						
1255	2693	5101	7112	12743	20457	32715	47724	73682						
1260	2703	5121	7140	12794	20537	32844	47912	73973						
1265	2714	5141	7168	12844	20618	32973	48100	74263						
1270	2725	5161	7196	12894	20699	33102	48288	74554						
1275	2735	5181	7224	12944	20779	33231	48477	74844						
1280	2746	5202	7252	12995	20860	33360	48665	75135						
1285	2757	5222	7280	13045	20941	33489	48853	75425						
1290	2767	5242	7308	13095	21021	33618	49041	75716						
1295	2778	5262	7336	13145	21102	33747	49229	76006						
1300	2788	5282	7364	13195	21182	33876	49417	76296						
1305	2799	5302	7392	13246	21263	34005	49605	76587						
1310	2810	5322	7420	13296	21344	34134	49794	76877						
1315	2820	5342	7448	13346	21424	34263	49982	77168						
1320	2831	5362	7476	13396	21505	34392	50170	77458						
1325	2841	5382	7504	13447	21586	34521	50358	77749						
1330	2852	5403	7532	13497	21666	34649	50546	78039						
1335	2863	5423	7560	13547	21747	34778	50734	78330						
1340	2873	5443	7588	13597	21828	34907	50922	78620						
1345	2884	5463	7616	13648	21908	35036	51110	78911						
1350	2895	5483	7644	13698	21989	35165	51299	79201						
1355	2905	5503	7672	13748	22070	35294	51487	79492						
1360	2916	5523	7700	13798	22150	35423	51675	79782						
1365	2926	5543	7728	13849	22231	35552	51863	80072						
1370	2937	5563	7756	13899	22311	35681	52051	80363						
1375	2948	5584	7784	13949	22392	35810	52239	80653						
1380	2958	5604	7812	13999	22473	35939	52427	80944						
1385	2969	5624	7840	14049	22553	36068	52616	81234						
1390	2979	5644	7868	14100	22634	36197	52804	81525						
1395	2990	5664	7897	14150	22715	36326	52992	81815						
1400	3001	5684	7925	14200	22795	36455	53180	82106						
1405	3011	5704	7953	14250	22876	36584	53368	82396						
1410	3022	5724	7981	14301	22957	36713	53556	82687						
1415	3033	5744	8009	14351	23037	36842	53744	82977						
1420	3043	5765	8037	14401	23118	36971	53932	83268						
1425	3054	5785	8065	14451	23199	37100	54121	83558						
1430	3064	5805	8093	14502	23279	37229	54309	83848						
1435	3075	5825	8121	14552	23360	37358	54497	84139						
1440	3086	5845	8149	14602	23440	37487	54685	84429						
1445	3096	5865	8177	14652	23521	37616	54873	84720						
1450	3107	5885	8205	14703	23602	37745	55061	85010						
1455	3117	5905	8233	14753	23682	37874	55249	85301						
1460	3128	5925	8261	14803	23763	38003	55437	85591						
1465	3139	5946	8289	14853	23844	38132	55626	85882						
1470	3149	5966	8317	14903	23924	38261	55814	86172						
1475	3160	5986	8345	14954	24005	38389	56002	86463						
1480	3171	6006	8373	15004	24086	38518	56190	86753						







Set Pressure	D* 0.000	E* 0.000	F 0.317	G 0.568	H 0.911	J 1.457	K 2.125	L 3.281	M 4.047	N 4.988	P 7.330	Q 12.699
710	89	157	226	406	651	1042	1519	2346	2893	3566	5240	9078
720	90	158	228	409	656	1049	1530	2362	2914	3591	5277	9142
730	90	159	230	411	660	1056	1541	2379	2934	3615	5314	9205
740	91	160	231	414	665	1063	1551	2395	2954	3640	5350	9268
750	92	161	233	417	669	1070	1562	2411	2974	3665	5386	9331
760	92	162	234	420	674	1078	1572	2427	2993	3689	5422	9393
770	93	163	236	422	678	1085	1582	2443	3013	3713	5457	9454
780	93	164	237	425	683	1092	1592	2459	3033	3737	5492	9515
790	94	165	239	428	687	1099	1603	2474	3052	3761	5528	9576
800	95	166	240	431	691	1106	1613	2490	3071	3785	5562	9637
810	95	167	242	433	696	1112	1623	2506	3090	3808	5597	9697
820	96	168	243	436	700	1119	1633	2521	3109	3832	5632	9756
830	96	169	245	439	704	1126	1643	2536	3128	3855	5666	9816
840	97	170	246	441	708	1133	1653	2552	3147	3878	5700	9875
850	98	172	248	444	713	1140	1662	2567	3166	3901	5734	9933
860	98	173	249	447	717	1146	1672	2582	3184	3924	5767	9991
870	99	174	251	449	721	1153	1682	2597	3203	3947	5801	10049
880	99	175	252	452	725	1160	1691	2612	3221	3970	5834	10107
890	100	175	253	454	729	1166	1701	2626	3239	3992	5867	10164
900	100	176	255	457	733	1173	1711	2641	3257	4014	5900	10221
910	101	177	256	459	737	1179	1720	2656	3275	4037	5933	10278
920	101	178	258	462	741	1186	1730	2670	3293	4059	5965	10334
930	102	179	259	464	745	1192	1739	2685	3311	4081	5997	10390
940	103	180	261	467	749	1198	1748	2699	3329	4103	6030	10446
950	103	181	262	469	753	1205	1757	2713	3347	4124	6062	10501
960	104	182	263	472	757	1211	1767	2728	3364	4146	6093	10556
970	104	183	265	474	761	1217	1776	2742	3382	4168	6125	10611
980	105	184	266	477	765	1224	1785	2756	3399	4189	6156	10666
990	105	185	267	479	769	1230	1794	2770	3416	4210	6188	10720
1000	106	186	269	481	773	1236	1803	2784	3434	4232	6219	10774
1010	106	187	270	484	777	1242	1812	2798	3451			
1020	107	188	271	486	781	1248	1821	2812	3468			
1030	107	189	273	489	784	1254	1830	2825	3485			
1040	108	190	274	491	788	1261	1839	2839	3502			
1050	108	191	275	493	792	1267	1848	2853	3518			
1060	109	192	277	496	796	1273	1856	2866	3535			
1070	109	192	278	498	800	1279	1865	2880	3552			
1080	110	193	279	500	803	1285	1874	2893	3568			
1090	110	194	281	503	807	1290	1883	2906	3585			
1100	111	195	282	505	811	1296	1891	2920	3601			
1110	111	196	283	507	814	1302	1900	2933				
1120	112	197	284	510	818	1308	1908	2946				
1130	112	198	286	512	822	1314	1917	2959				
1140	113	199	287	514	825	1320	1925	2972				
1150	113	199	288	516	829	1326	1934	2985				
1160	114	200	289	519	832	1331	1942	2998				
1170	114	201	291	521	836	1337	1950	3011				
1180	115	202	292	523	840	1343	1959	3024				
1190	115	203	293	525	843	1348	1967	3037				
1200	116	204	294	527	847	1354	1975	3050				
1210	116	205	296	530	850	1360	1983	3062				
1220	117	205	297	532	854	1365	1992	3075				
1230	117	206	298	534	857	1371	2000	3088				
1240	118	207	299	536	861	1376	2008	3100				
1250	118	208	300	538	864	1382	2016	3113				
1260	119	209	302	540	868	1387	2024	3125				
1270	119	210	303	543	871	1393	2032	3137				
1280	120	210	304	545	874	1398	2040	3150				
1290	120	211	305	547	878	1404	2048	3162				
1300	121	212	306	549	881	1409	2056	3174				
1320	122	214	309	553	888	1420	2072	3198				
1340	122	215	311	557	895	1431	2087	3223				
1360	123	217	313	561	901	1441	2103	3247				
1380	124	219	316	566	908	1452	2118	3270				
1400	125	220	318	570	915	1463	2134	3294				
1420	126	222	320	574	921	1473	2149	3317				
1440	127	223	322	578	927	1483	2164	3341				
1460	128	225	325	582	934	1494	2179	3364				
1480	129	226	327	586	940	1504	2194	3387				
1500	130	228	329	590	947	1514	2208	3410				



## **WARRANTY**

Hydroseal Valve Company, Inc. guarantees Hydroseal products to be free from defects in materials and workmanship for a period of one year from the date of shipment to the original purchaser. Hydroseal products that are claimed to be defective may be returned to Hydroseal Valve Company or an authorized Hydroseal Sales and Service Center (freight prepaid) for warranty evaluation only upon Hydroseal's written consent. Hydroseal reserves the right to repair or replace (at Hydroseal's sole option) any product that has been determined to be defective. Hydroseal will not accept responsibility for incidental or consequential damage, or for a product that is defective as a result of abuse, misuse, improper application or installation, damage in transit, improper maintenance or improper operation. Hydroseal safety and relief valves that have a broken seal or seal wire will not be considered for warranty service. A broken seal or seal wire indicates that an attempt has been made to service the valve without appropriate authorization and voids all warranties, express or implied. Hydroseal Valve Company, Inc. makes no claim or warranty as to the merchantability or as to the fitness of Hydroseal products for a particular purpose, except as stated above.



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