

XOMOX®

brands you trust.



Process Ball Valves

CRANE

ChemPharma Flow Solutions

www.cranepharmasolutions.com



Xomox Ball Valve

**Only
CRANE ChemPharma,
Xomox Ball Valves
embody all the
quality, performance,
value, and safety
features required in
process applications.**

The basics:

CRANE ChemPharma, Xomox Process Ball Valves are available in the following configurations:

- One-piece flanged
- Two-piece flanged
- Three-piece screwed, socket-weld, and butt-weld ends
- Sizes 1/2 through 8 inches
- ANSI Class pressure ratings of 150, 300, and 600
- CRANE ChemPharma, Xomox Ball Valves provide tight shut-off from vacuum through rated pressure at temperatures from -20°F to 450°F.

Anti-static electrical continuity between ball, stem, and body.

Locking washer

Blow-out proof stem.

Live loaded packing assures reliable performance for the life of the valve.

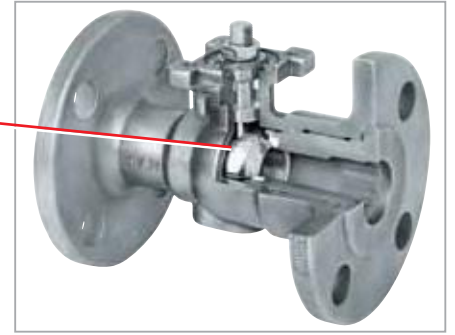
Innovative engineering and the precision machined ball assure lower operating torque and more economical actuation. Seat wear is reduced and operating life is greatly extended. All valves come standard with 316 stainless steel balls.

The compact two-piece body meets end-to-end requirements of ASME/ANSI B16.10.

The integral **ISO 5211** actuator mounting pad assures easy, low cost automation.

With optional graphite stem packing, the valve is fire-tested to **API-607, 4th Edition**.

For inventory economy and convenience, one-piece and two-piece valves have interchangeable **internal parts**.



Above: The compact one-piece valve meets ASME/ANSI B16.10 specifications.

The patented **S2™** sealing system assures superior stem sealing.

Dual body gaskets are standard on 1-piece and 2-piece CRANE ChemPharma, Xomox Process Ball Valves. This includes a PTFE chemically inert seal and a secondary FT graphite seal (Patent No. 6,837,482 on 2-piece valves).



Above: The compact three-piece valve body design allows for disassembly and maintenance without removing the valve from the line.*

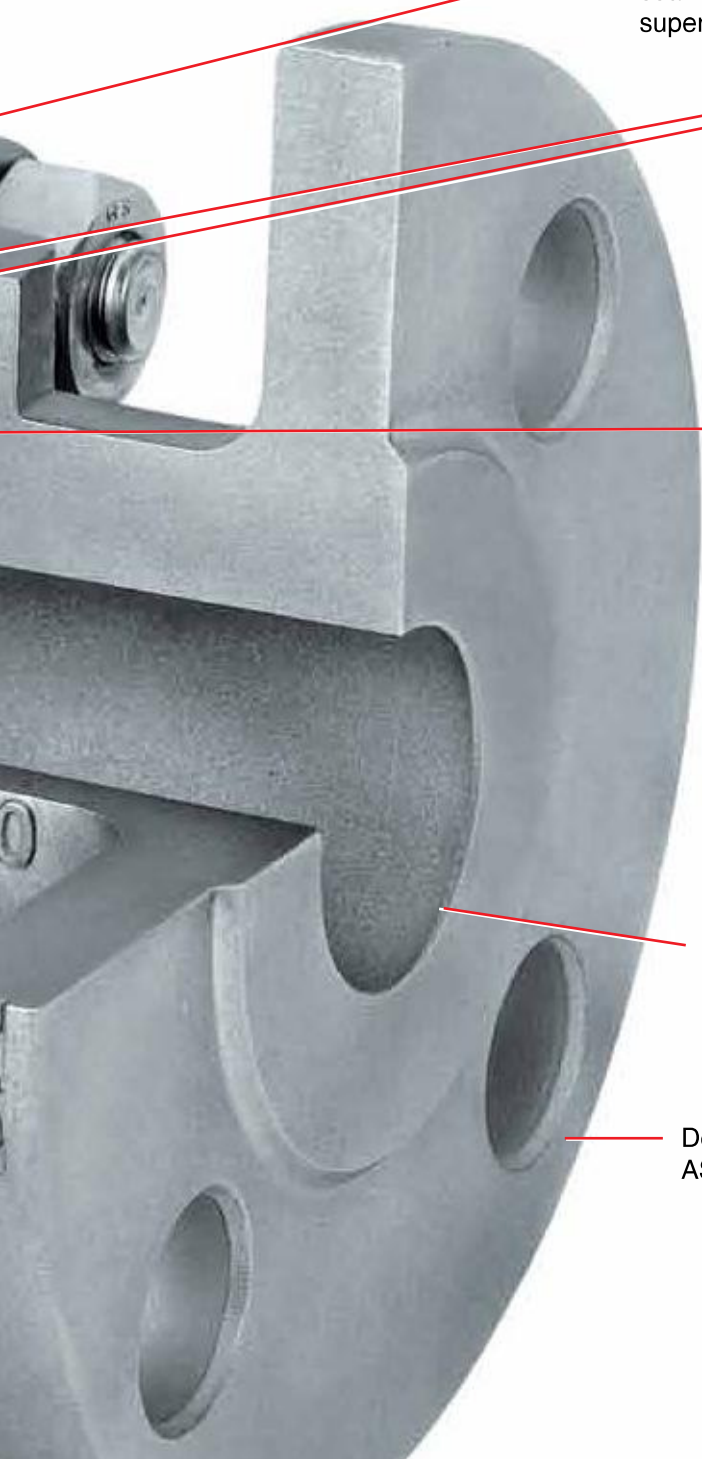
Standard **Chemically Modified PTFE (CMP)** seat material reduces the need for multiple seat options.

Compared to PTFE, CMP provides superior mechanical and thermal characteristics. CMP is more resistant to chemicals and cold flow. Other seal materials are available upon request.

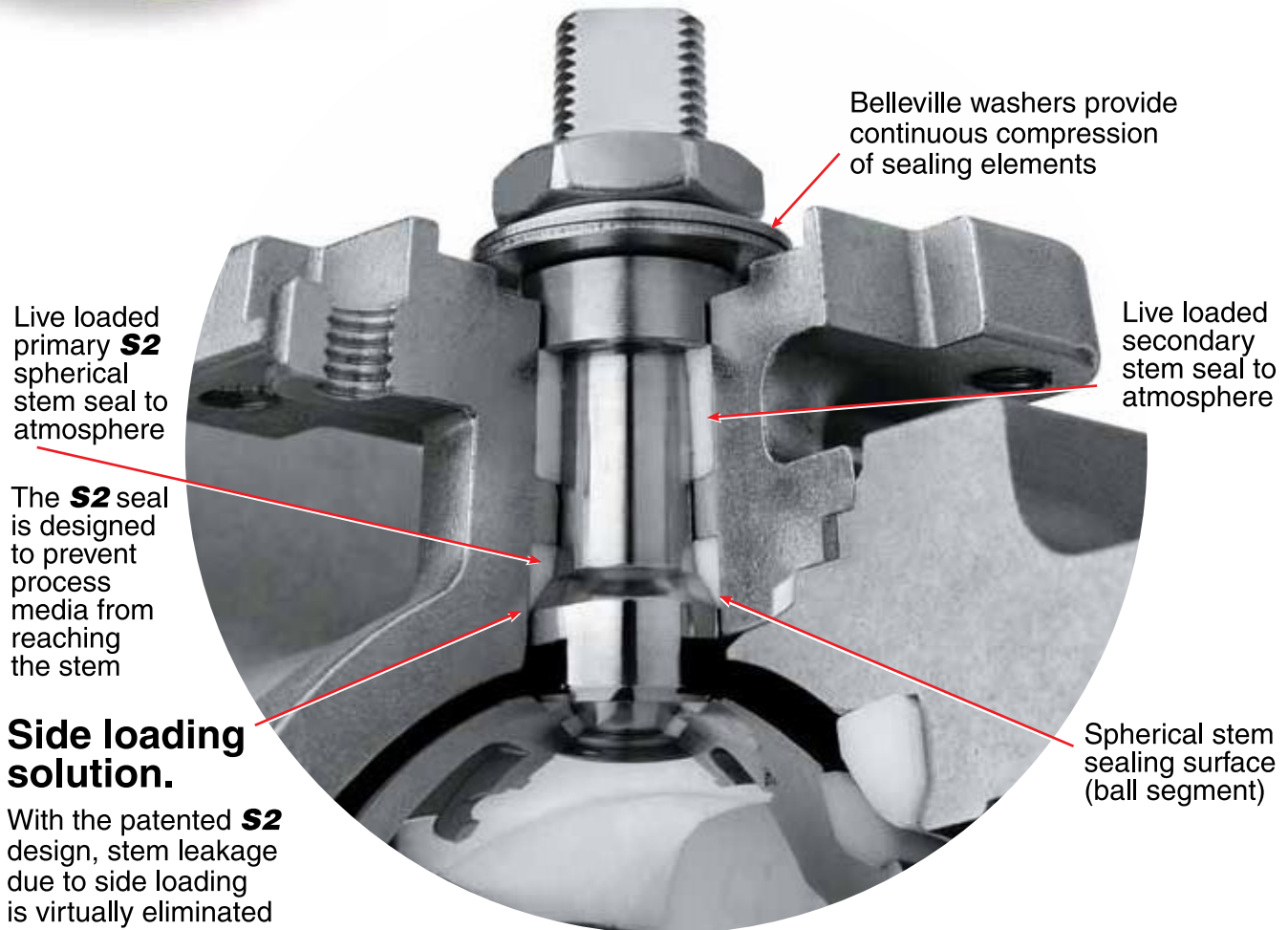
* Non FT valves only.

Large port openings maximize **Cv factors**, increasing flow rates and minimizing pressure loss.

Development of casting is to ASTM E-446 Level II standards.



CRANE ChemPharma, Xomox's exclusive S2™ stem seal system provides superior fugitive emissions control in process applications.



Live loaded primary **S2** spherical stem seal to atmosphere

Belleville washers provide continuous compression of sealing elements

Live loaded secondary stem seal to atmosphere

The **S2** seal is designed to prevent process media from reaching the stem

Side loading solution.

With the patented **S2** design, stem leakage due to side loading is virtually eliminated

Spherical stem sealing surface (ball segment)

- **Media-free stem.**

The primary spherical **S2** stem seal eliminates media build-up on the stem. This prevents stem binding and torque increase. The secondary stem seal is not exposed to the process media.

- **Maintenance-free operation.**

The spherical **S2** stem sealing system automatically adjusts to compensate for wear, temperature, and pressure fluctuations.

- **Exceptional performance.**

Documented performance, under actual service conditions, of more than 3-million cycles without measurable stem leakage.

The patented S2™ stem seal stops normal side loading stem leakage.

Typical causes of stem side loading resulting in leakage to atmosphere:

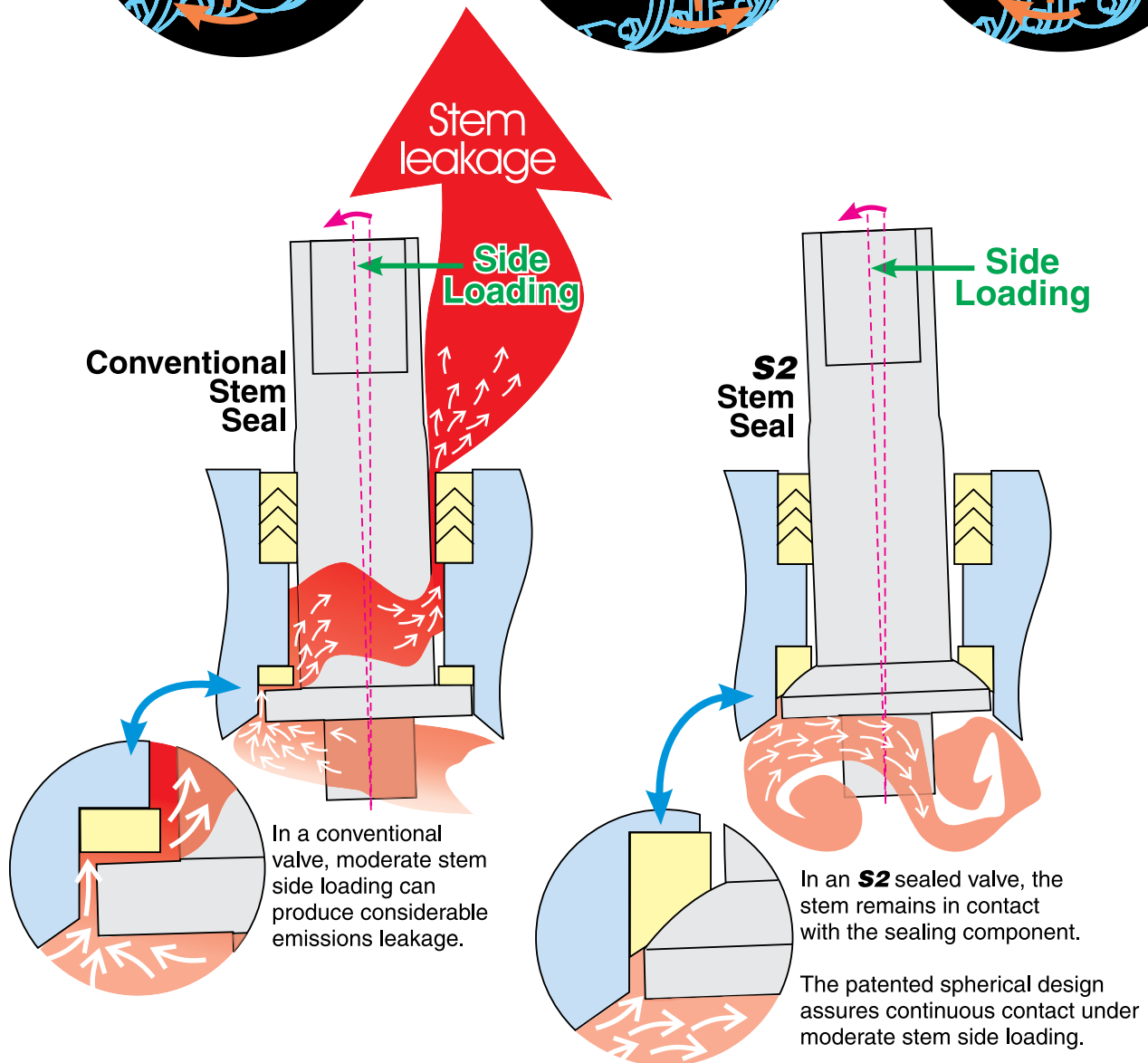
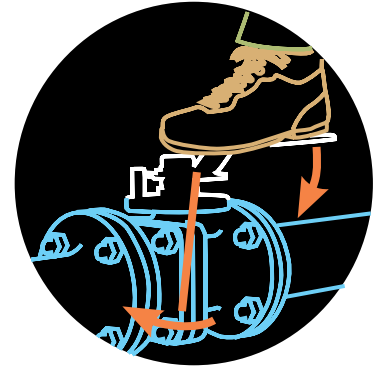
Heavy manual operation



Actuation loads and misalignment



Abusive contact

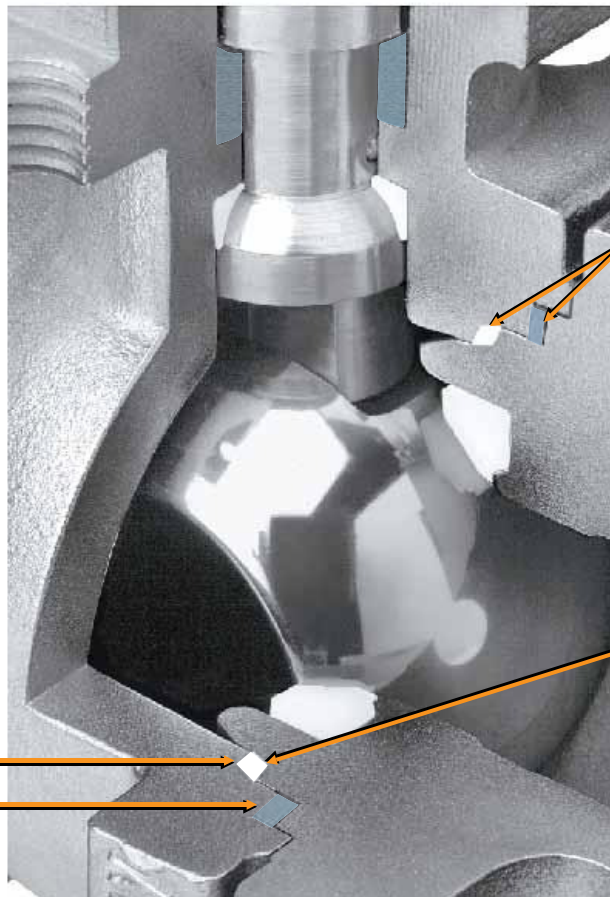


CRANE ChemPharma, Xomox meets the thermal challenge with the most effective body seal available.

The thermal cycling challenge.

Most PTFE body gaskets work well at static temperatures. The real challenge comes when you introduce a wide temperature swing is introduced.

In a standard gasket seal design, a thermal cycle can cause a leak due to differences in the thermal coefficient of expansion between the PTFE body seal and the metal body material.



PTFE seal
Graphite seal

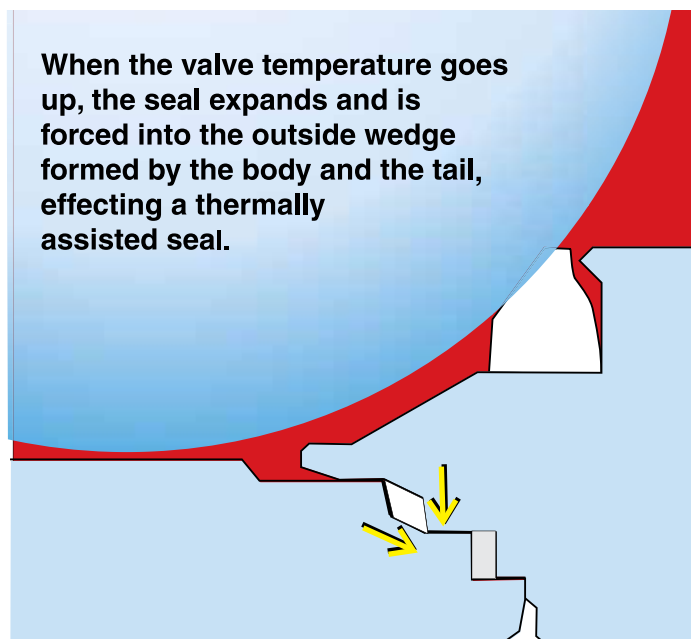
Dual body gaskets are standard on 1-piece and 2-piece CRANE ChemPharma, Xomox Process Ball Valves. This includes a PTFE chemically inert seal and a secondary FT graphite seal (patent-pending on 2-piece valves).

Compression of the two body joint gaskets is precisely controlled to prevent cold flow and distortion. The gasket seal is uniform and secure.

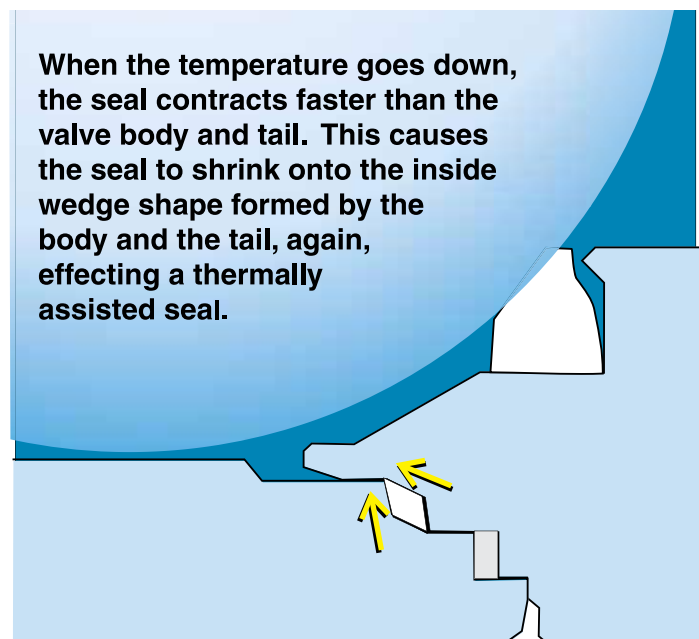
Thermally-assisted sealing.

CRANE ChemPharma, Xomox's diamond shaped, thermally assisted PTFE body seal, will seal at all temperatures in its design range, even during thermal cycling.

To enhance the seal, this unique design takes advantage of the differences in the rates of thermal expansion between the PTFE and the metal to enhance the seal.



When the valve temperature goes up, the seal expands and is forced into the outside wedge formed by the body and the tail, effecting a thermally assisted seal.



When the temperature goes down, the seal contracts faster than the valve body and tail. This causes the seal to shrink onto the inside wedge shape formed by the body and the tail, again, effecting a thermally assisted seal.

Fugitive Emissions Module

ISO 5211 mounting pad top & bottom makes installation on CRANE ChemPharma, Xomox Ball Valves and mounting of actuators simple and economical

Interface matches valve making it field convertible with existing mounting kit or handle

Double set of belleville washers live load both stem packing and the **S2** spherical seal. This assures positive sealing in high cycle severe service applications

PTFE chevron stem packing provides a secondary dynamic stem seal

Exclusive spherical **S2** stem seal (See pages 4 & 5 of this catalog for details)

316SS Investment Casting developed to ASTM E-446 Level II standards assures casting integrity and provides corrosion resistance

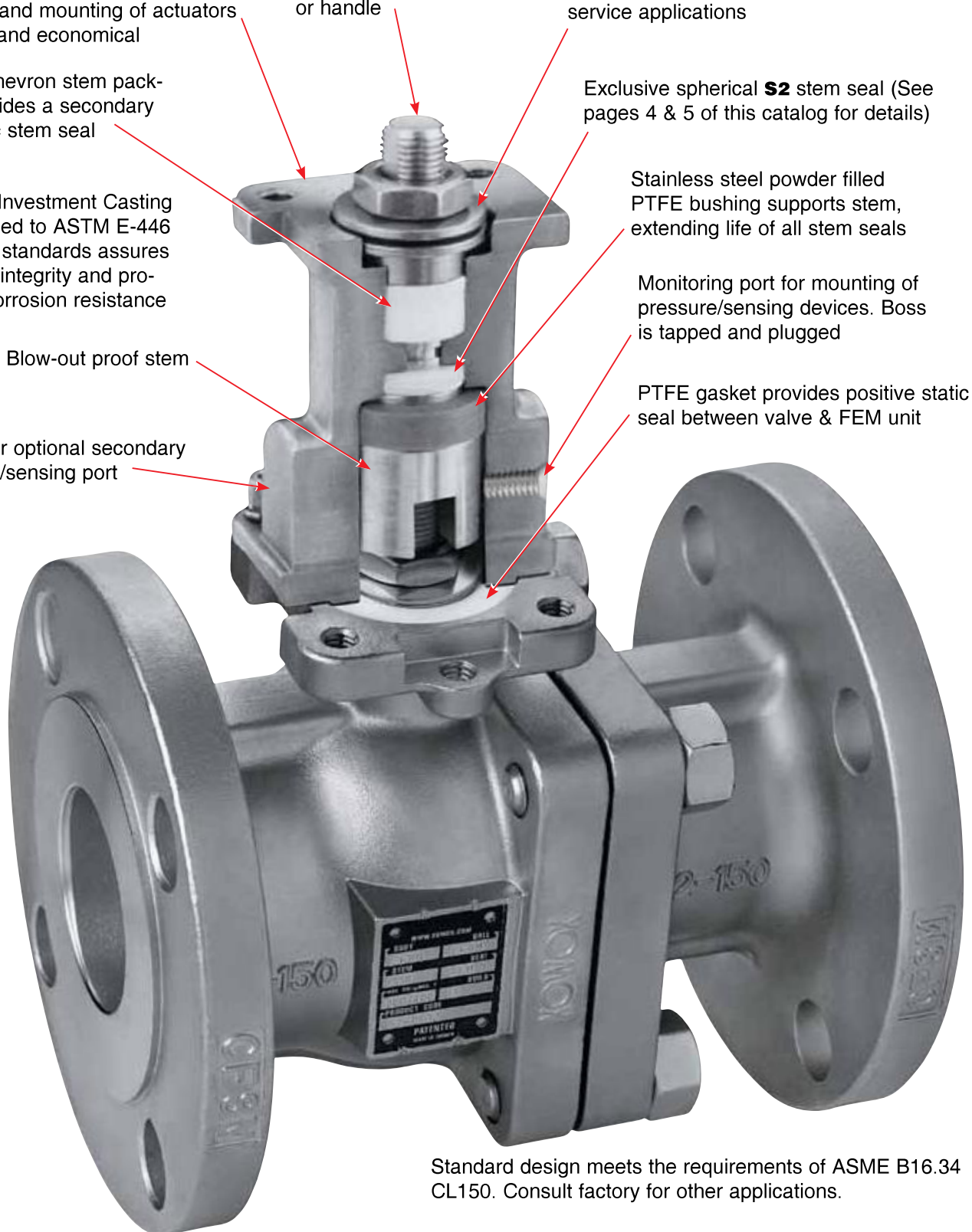
Stainless steel powder filled PTFE bushing supports stem, extending life of all stem seals

Blow-out proof stem

Monitoring port for mounting of pressure/sensing devices. Boss is tapped and plugged

Boss for optional secondary purging/sensing port

PTFE gasket provides positive static seal between valve & FEM unit



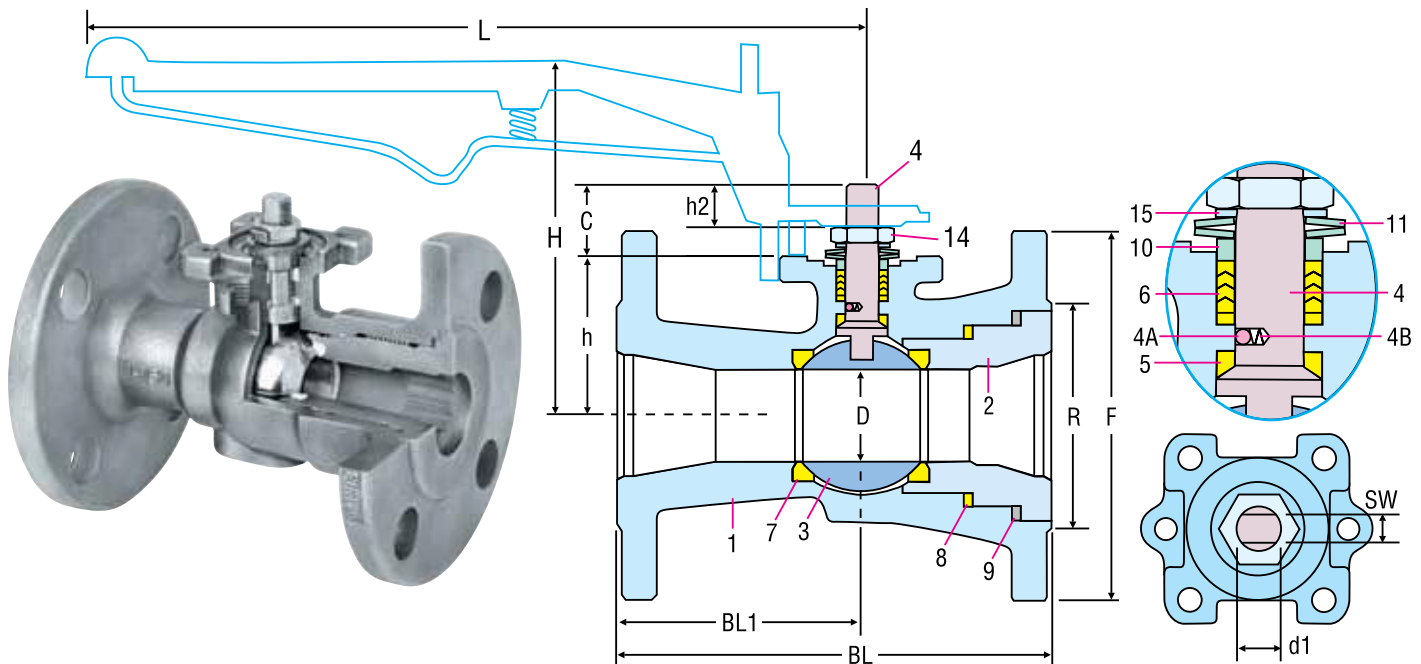
Standard design meets the requirements of ASME B16.34 CL150. Consult factory for other applications.

Sample CRANE ChemPharma, Xomox Process Ball Valve Specifications

Sizes	1/2" - 4" Class 150 Full Port Carbon / Stainless Trim	6" - 8" Class 150 Full Port Stainless / Stainless Trim
Body	ASTM A216, WCB	ASTM A351, CF8M
Tail	ASTM A216, WCB	ASTM A351, CF8M
Pressure-Temperature Rating	285 psig 100°F 100 psig 480°F	275 psig 100°F
Size Range	1/2" - 4"	6" - 8"
End Connections	Flanged ASME 16.5, Class 150, raised face	Flanged ASME 16.5, Class 150, raised face
Seat	CMP (Chemically modified PTFE)	CMP (Chemically modified PTFE)
Stem Seal	PTFE S2 stem seal	CMP S2 stem seal
Primary Body Gasket	PTFE diamond shaped, thermally assisted	PTFE diamond shaped, thermally assisted
Secondary Body Gasket	Grafoil	Grafoil
Ball	316SS	316SS
Stem	316SS Blowout proof	316SS Blowout proof
Stem Packing	PTFE live loaded	PTFE live loaded
Studs	ASTM A193, B7M	ASTM A193, B8M
Nuts	ASTM A194, 2HM	ASTM A194, 8MA
Operator	SS latching / locking lever	Gear operator
References	ASME / ANSI B16.10, ASME B16.34	ASME / ANSI B16.10, ASME B16.34
Design	2-piece, full bore	2-piece, full bore
Manufacturer	Xomox Corporation	Xomox Corporation
Figure Number	521F-266-TAP16-LL	521F-666-TAP16-G



One-Piece Body / ANSI B16.34 / Class 150 & 300



Reduced Port

3/4 to 4 inch

End-to-end dimensions:
ASME / ANSI B16.10

Short Pattern

Xomox Figure Numbers:
Class 150 - **511R**
Class 300 - **513R**

The exclusive, patented **S2** stem design is:

- Blow-out proof
- Fire-tested
- Highly resistant to side-loading leakage.

Parts & Materials

No.	Part Description	Carbon	Stainless
1	Body	ASTM A216. WCB	ASTM A351. CF8M
2	Tail	ASTM A216. WCB	ASTM A351. CF8M
3	Ball	316SS	316SS
4	Stem	316SS	316SS
4A	Anti-Static Ball	316SS	316SS
4B	Anti-Static Spring	316SS	316SS
5	S2 Stem Seal Ring	PTFE	PTFE
6	Packing Set	PTFE	PTFE
6	Fire Tested Packing Set	Graphite	Graphite
7	Soft Seat Seal Ring	CMP	CMP
8	Body Gasket - Inner Seal	PTFE	PTFE
9	Body Gasket - Outer Seal	GRAPHITE	GRAPHITE
10	Gland	316SS	316SS
11	Spring Washer	SST	SST
14	Stem Nut	ASTM A194. 8MA	ASTM A194. 8MA
15	Locking Washer	304SS	304SS

Size	Flange Dia. (F)		No. of Flange Bolt Holes		Dia. of Flange Bolt Holes		Dia. of Flange Bolt Circle	
	Cl. 150	Cl. 300	Cl. 150	Cl. 300	Cl. 150	Cl. 300	Cl. 150	Cl. 300
3/4	3.88	4.62	4.00	4.00	0.62	0.75	2.75	3.25
1	4.25	4.88	4.00	4.00	0.62	0.75	3.12	3.50
1 1/2	5.00	6.12	4.00	4.00	0.62	0.88	3.88	4.50
2	6.00	6.50	4.00	8.00	0.75	0.75	4.75	5.00
3	7.50	8.25	4.00	8.00	0.75	0.88	6.00	6.62
4	9.00	10.00	8.00	8.00	0.75	0.88	7.50	7.88

Size	D Flow Dia.	Face-to-Face Dim. BL		Dim. BL1		h	h2	H	L	C	SW	d1	Raised Face Dia. (R)	ISO Flange	ISO Bolt Size Metric	ISO Bolt Circle	Weight (pounds)	
		Cl. 150	Cl. 300	Cl. 150	Cl. 300												Cl. 150	Cl. 300
3/4	.50	4.62	6.00	2.35	3.74	1.54	0.43	4.88	5.75	0.75	.248	0.38	1.69	F04	M5xP.8	1.65	5	8
1	.75	5.00	6.50	2.62	4.12	1.77	0.35	5.13	5.75	0.63	.248	0.38	2.00	F04	M5xP.8	1.65	7	10
1 1/2	1.25	6.50	7.50	3.84	4.84	2.19	0.59	5.50	6.93	0.91	.315	0.44	2.88	F05	M6xP1	1.97	18	24
2	1.50	7.00	8.50	3.93	5.43	2.60	0.70	5.63	10.88	1.07	.374	0.63	3.62	F07	M8xP1.25	2.76	19	25
3	2.50	8.00	11.12	4.04	7.16	3.64	1.00	8.50	12.40	1.74	.669	0.88	5.00	F10	M10xP1.5	4.02	40	54
4	3.00	9.00	12.00	4.93	7.93	4.02	1.00	8.88	12.40	1.74	.669	0.88	6.19	F10	M10xP1.5	4.02	58	81

Two-Piece Body / B16.34 / ANSI Class 150 & 300

Reduced Port

6 & 8 inch

End-to-end dimensions:
ASME / ANSI B16.10

Short Pattern

Xomox Figure Numbers:

Class 150 - **521R**

Class 300 - **523R**

Full Port

1/2 to 8 inch

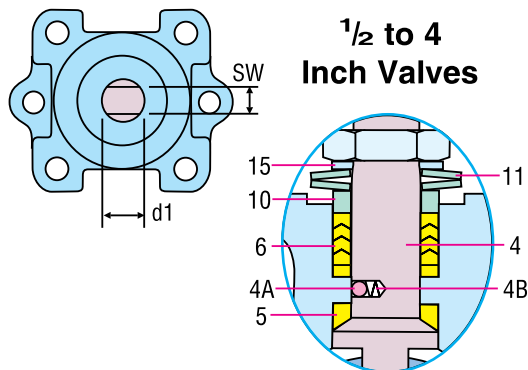
End-to-end dimensions:
ASME / ANSI B16.10

Long Pattern

Xomox Figure Numbers:

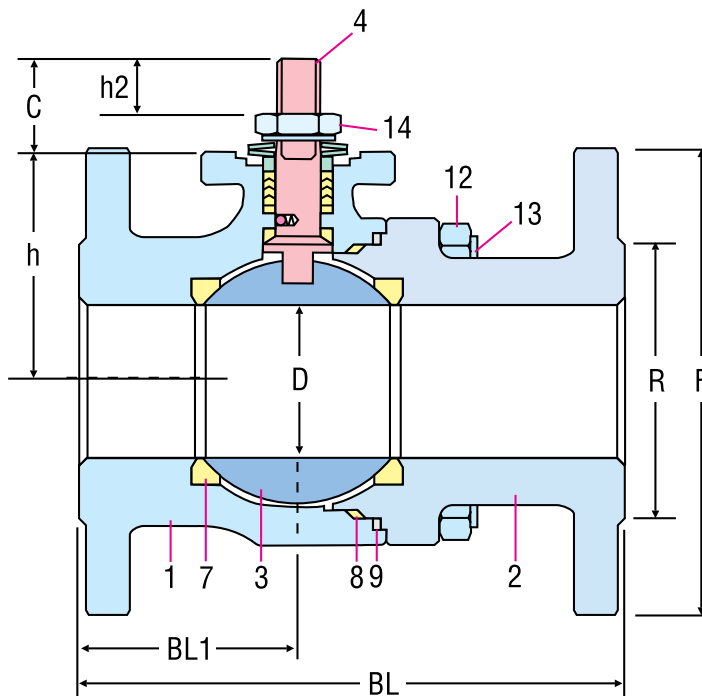
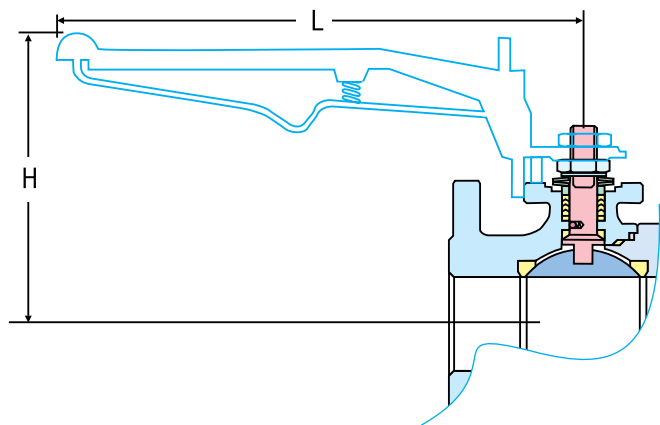
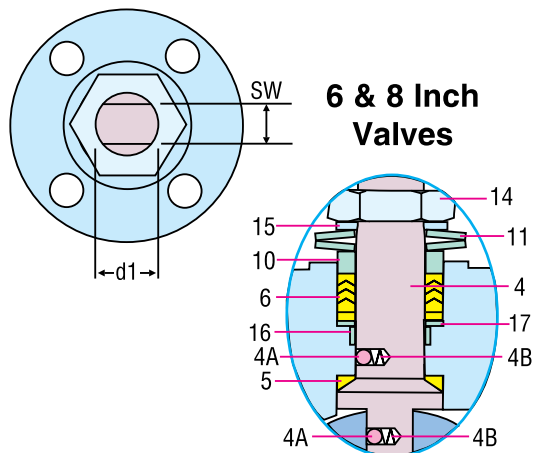
Class 150 - **521F**

Class 300 - **523F**



The exclusive, patented S2 stem design is:

- Blow-out proof
- Fire-tested
- Highly resistant to side-loading leakage.



Reduced Port

Size	D Flow Dia.	Face-to-Face Dim. BL		Dim. BL.1		h	h2	H	L	C	SW	d1	Raised Face Dia. (R)	ISO Flange	ISO Bolt Size Metric	ISO Bolt Circle	Weight (pounds)	
		Cl. 150	Cl. 300	Cl. 150	Cl. 300												Cl. 150	Cl. 300
6	4.00	10.50	15.88	4.88	7.28	5.91	1.41	10.77	18.70	2.95	1.063	1.42	8.50	F12	M12x1.75	4.92	114	181
8	6.00	11.50	16.50	5.51	7.28	7.87	1.94	13.60	23.62	3.78	1.417	1.89	10.62	F14	M16x2.0	5.51	200	313

Full Port

Size	D Flow Dia.	Face-to-Face Dim. BL		Dim. BL1		h	h2	H	L	C	SW	d1	Raised Face Dia. (R)	ISO Flange	ISO Bolt Size Metric	ISO Bolt Circle	Weight (pounds)	
		Cl. 150	Cl. 300	Cl. 150	Cl. 300												Cl. 150	Cl. 300
1/2	.50	4.25	5.50	1.82	2.30	1.54	0.43	4.88	5.75	0.74	.248	0.38	1.38	F04	M5xP.8	1.65	5	6
3/4	.75	4.62	6.00	1.92	2.41	1.77	0.35	5.13	5.75	0.63	.248	0.38	1.69	F04	M5xP.8	1.65	5	9
1	1.00	5.00	6.50	1.91	2.69	2.03	0.61	5.50	6.93	0.93	.315	0.44	2.00	F05	M6xP1.0	1.97	8	13
1 1/2	1.50	6.50	7.50	2.20	3.27	2.58	0.70	5.63	10.88	1.09	.374	0.63	2.88	F07	M8xP1.25	2.76	14	22
2	2.00	7.00	8.50	2.76	3.03	2.95	0.70	6.00	10.88	1.07	.374	0.63	3.62	F07	M8xP1.25	2.76	21	30
3	3.00	8.00	11.12	3.83	4.98	4.02	1.00	8.88	12.40	1.74	.669	0.88	5.00	F10	M10xP1.5	4.02	47	69
4	4.00	9.00	12.00	3.62	5.12	4.82	1.44	9.63	20.31	2.44	.669	1.13	6.19	F10	M10xP1.5	4.02	76	88

Size	D Flow Dia.	Face-to-Face Dim. BL		Dim. BL1		h	h2	H	L	C	SW	d1	Raised Face Dia.(R)	ISO Flange	ISO Bolt Size Metric	ISO Bolt Circle	Weight (pounds)	
		Cl. 150	Cl. 300	Cl. 150	Cl. 300												Cl. 150	Cl. 300
6	6.00	15.50	15.88	7.28	8.46	7.87	1.94	13.60	23.62	3.78	1.417	1.89	8.50	F14	M16x2.0	5.51	193	267
8	8.00	18.00	19.75	7.28	9.37	10.04	2.00	-	-	4.13	1.811	2.36	10.62	F16	M20x2.5	6.50	371	517

Flange Data

Size	Flange Dia. (F)		No. of Flange Bolt Holes		Dia. of Flange Bolt Holes		Dia. of Flange Bolt Circle	
	Cl. 150	Cl. 300	Cl. 150	Cl. 300	Cl. 150	Cl. 300	Cl. 150	Cl. 300
1/2	3.50	3.75	4	4	0.62	0.62	2.38	2.62
3/4	3.88	4.62	4	4	0.62	0.75	2.75	3.25
1	4.25	4.88	4	4	0.62	0.75	3.12	3.50
1 1/2	5.00	6.12	4	4	0.62	0.88	3.88	4.50
2	6.00	6.50	4	8	0.75	0.75	4.75	5.00
3	7.50	8.25	4	8	0.75	0.88	6.00	6.62
4	9.00	10.00	8	8	0.75	0.88	7.50	7.88
6	11.00	12.50	8	12	0.88	0.88	9.50	10.62
8	13.50	15.00	8	12	0.88	1.00	11.75	13.00

Parts For 6 & 8 Inch Valves Only

No.	Part Description	Carbon	Stainless
5	S2 Stem Seal Ring	CMP	CMP
16	Bearing, Stem	25% Glass Filled PTFE	25% Glass Filled PTFE
	Fire Tested Bearing, Stem	Nickel Plated SST Bearing	Nickel Plated SST Bearing
17	Anti-Extrusion Ring	316SS	316SS

Parts & Materials

No.	Part Description	Carbon	Stainless
1	Body	ASTM A216. WCB	ASTM A351. CF8M
2	Tail	ASTM A216. WCB	ASTM A351. CF8M
3	Ball	316SS	316SS
4	Stem	316SS	316SS
4A	Anti-Static Ball	316SS	316SS
4B	Anti-Static Spring	316SS	316SS
5	S2 Stem Seal Ring	PTFE	PTFE
6	Packing Set	PTFE	PTFE
	Fire Tested Packing Set	Graphite	Graphite
7	Soft Seat Seal Ring	CMP	CMP
8	Body Gasket - Inner Seal	PTFE	PTFE
9	Body Gasket - Outer Seal	GRAPHITE	GRAPHITE
10	Gland	316SS	316SS
11	Spring Washer	SST	SST
12	Nut	ASTM A194. 2HM	ASTM A194. 8M
13	Stud	ASTM A193. B7M	ASTM A193. B8M
14	Stem Nut	ASTM A194. 8M	ASTM A194. 8M
15	Locking Washer	304SS	304SS

Three-Piece Body / ANSI B16.34 / Class 150, 300 & 600

Reduced Port

3/4 to 2 inch

Xomox Figure Numbers:
Class 600 - **536R**

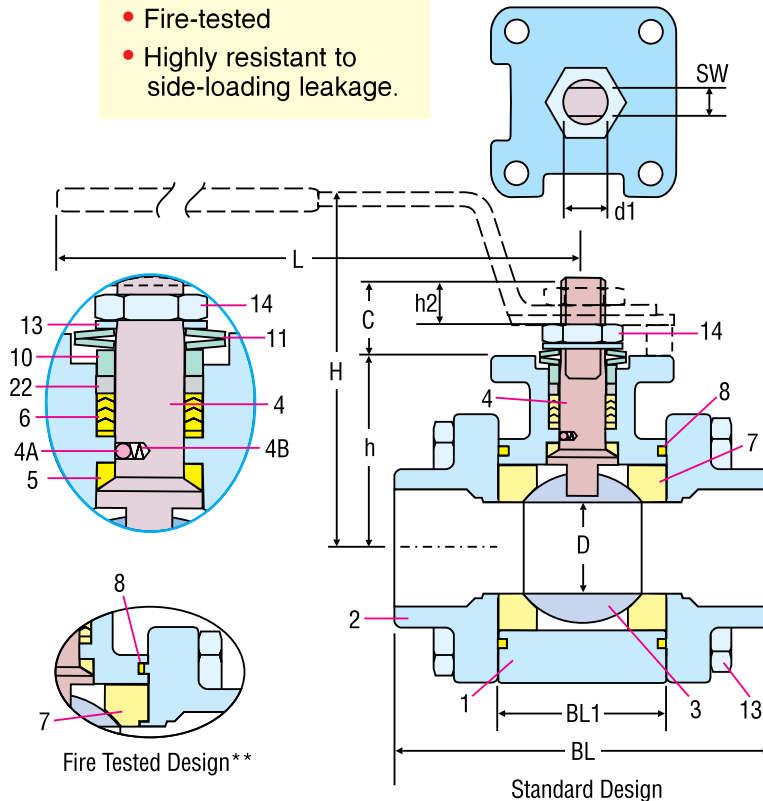
Full Port

1/2 to 2 inch

Xomox Figure Numbers:
Class 600: 1/2" - 1 1/2" - **536F**
Class 300: 2" - **533F**

The exclusive, patented S2 stem design is:

- Blow-out proof
- Fire-tested
- Highly resistant to side-loading leakage.



The three piece body is designed for easy in-line maintenance.*

* Non FT valves only.

Parts & Materials

No.	Part Description	Carbon	Stainless
1	Body	ASTM A216 WCB	ASTM A351 CF8M
2	End Caps	ASTM A216 WCB	ASTM A351 CF8M
3	Ball	316SS	316SS
4	Stem	316SS	316SS
4A	Anti-Static Ball	316SS	316SS
4B	Anti-Static Spring	316SS	316SS
5	S2 Stem Seal Ring	PTFE	PTFE
6	Packing Set	PTFE Graphite**	PTFE Graphite**
7	Soft Seat Seal Ring	CMP	CMP
8	Body Gasket	PTFE Graphite**	PTFE Graphite**
10	Gland	316SS	316SS
11	Spring Washer	SST	SST
13	Bolt (Body Joint)	ASTM A193 B7M	ASTM A193 B8M
14	Stem Nut	ASTM A194 Gr8	ASTM A194 Gr8
15	Locking Washer	304SS	304SS
22	Thrust Washer	50% TFE 50% SST	50% TFE 50% SST

Reduced Port

Size	D Flow Dia.	C	h2	L	SW	d1	H	h	Face To Face BL	BL1	ISO 5211	ISO Bolt Size	Wt. lbs.
3/4	.59	.67	.35	5.31	.25	.38	3.31	1.52	2.82	.99	F04	M5xP.8	1.90
1	.79	.67	.35	5.31	.25	.38	3.46	1.65	3.80	1.27	F04	M5xP.8	3.26
1 1/2	1.26	.79	.47	6.50	.31	.44	3.98	2.19	4.61	1.94	F05	M6xP1.0	6.08
2	1.57	.92	.55	7.87	.37	.63	4.61	2.58	5.08	2.25	F07	M8xP1.25	8.82

Full Port

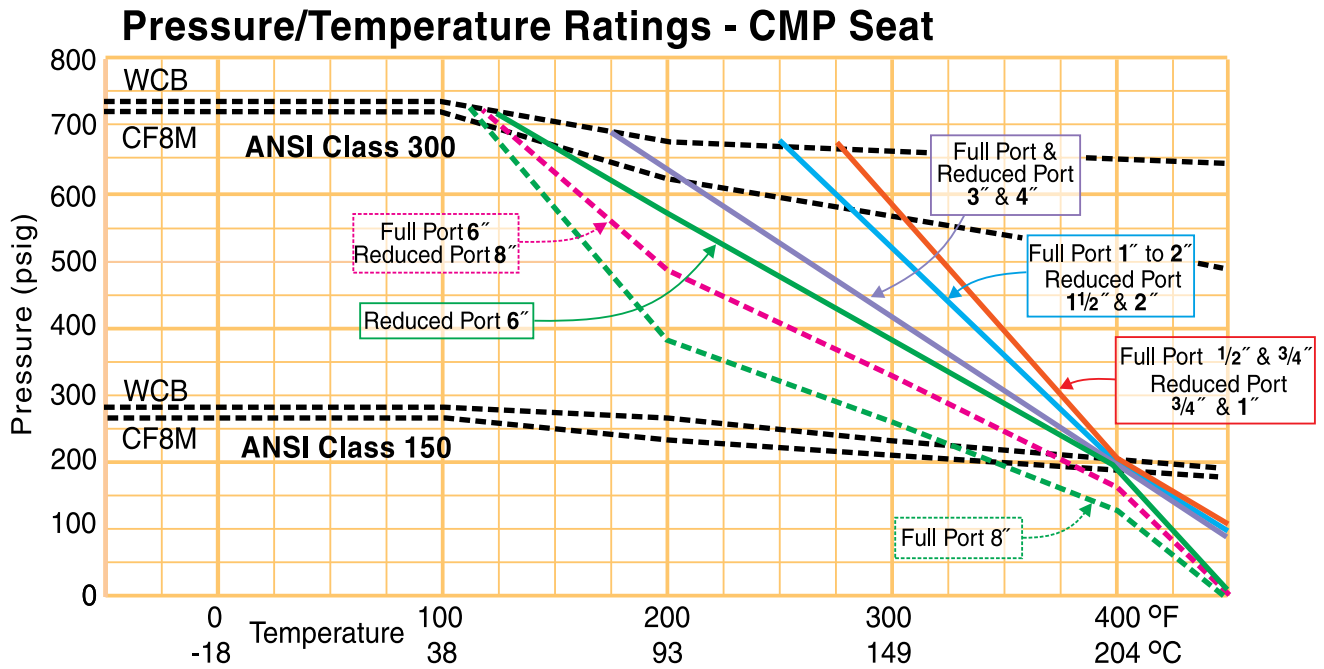
Size	D Flow Dia.	C	h2	L	SW	d1	H	h	Face To Face BL	BL1	ISO 5211	ISO Bolt Size	Wt. lbs.
1/2	.59	.67	.35	5.31	.25	.38	3.31	1.52	2.82	.99	F04	M5	2.20
3/4	.79	.67	.35	5.31	.25	.38	3.46	1.65	3.80	1.27	F04	M5	3.31
1	.98	.79	.47	6.50	.31	.44	3.86	2.03	4.29	1.67	F05	M6	4.45
1 1/2	1.50	.92	.55	7.87	.37	.63	4.61	2.58	5.08	2.25	F07	M8	9.08
2	2.00	.92	.51	7.87	.37	.63	4.61	2.93	5.59	2.81	F07	M8	14.93

** Fire tested valves

Actuator Sizing Torques Torques in IN-LBS

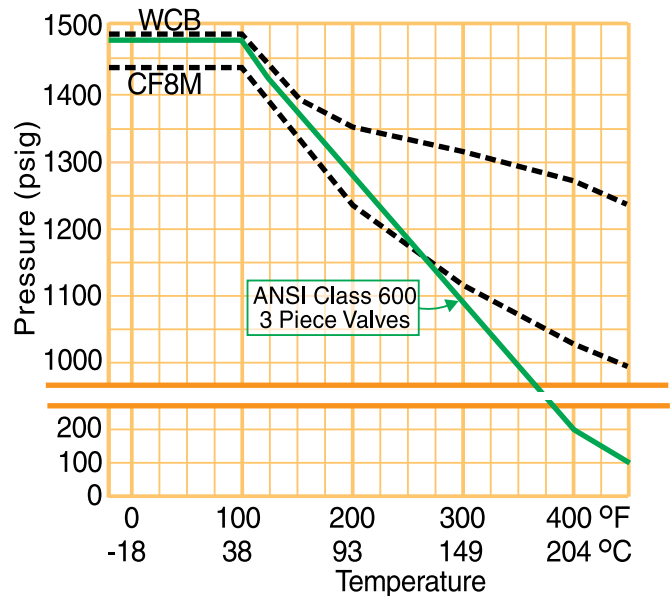
Valve Size		Maximum Differential Pressure, psi . . . Seat Material: CMP									
Reduced Port	Full Port	0-100	200	285	400	500	600	740	1000	1200	1480
3/4	1/2	45	45	45	45	45	47	50	53	56	60
1	3/4	60	60	60	60	66	73	80	83	86	90
	1	90	90	90	90	96	103	110	116	123	130
1 1/2		130	130	130	130	142	155	170	185	200	220
2	1 1/2	225	225	225	225	240	265	290	325	360	400
	2	380	380	380	400	425	450	480	-	-	-
3		500	500	500	550	610	675	750	-	-	-
4	3	750	750	750	890	1,050	1,250	1,480	-	-	-
	4	1,980	1,980	1,980	2,175	2,400	2,650	2,950	-	-	-
6		2,175	2,175	2,175	2,450	2,775	3,150	3,600	-	-	-
8	6	4,475	4,475	4,475	5,100	5,800	6,600	7,550	-	-	-
	8	9,550	9,550	9,550	10,450	11,400	12,450	13,625	-	-	-

Note: Torques are for clean and clear fluids.



Cv Factors

Valve Size	Classes 150 & 300 Full Port	Classes 150 & 300 Reduced Port	Class 600 Full Port	Class 600 Reduced Port
1/2	30	-	25	-
3/4	51	16	50	19
1	95	35	80	42
1 1/4	-	-	150	60
1 1/2	255	105	240	125
2	440	120	460	165
3	1,240	380	-	-
4	2,150	650	-	-
6	5,500	1,650	-	-
8	9,950	1,950	-	-



How To Specify

Figure Number

Size Product Configuration ANSI Class Port End Connection Stem Seal Option Body Ball Stem Packing Seat Style Seat Operator Service

1" - 5 - 2 - 1 - R - - - 2 - 6 - 6 - T - A - P16 - L N

Size

See the Quick Reference Table below.

Product

Standard Ball Valve . . . **5**

Configuration

- 1 Piece Body . . . **1**
- 2 Piece Body . . . **2**
- 3 Piece Body . . . **3**

ANSI Class

- Class 150 . . . **1**
- Class 300 . . . **3**
- Class 600 . . . **6**

Port

- Reduced . . . **R**
- Full **F**

End Connection

- Raised Face Flanged —
- Screwed End **SE**
- Socket Weld* **SW**
- Butt Weld **BW**

Stem Seal Option

- Standard Stem Nut Adjustment . . . —
- FEM Unit **FM**

Body

- Carbon Steel (WCB) **2**
- 316 Stainless Steel (CF8M) . . . **6**

Service

- Nace **N**
- Oxygen **O**
- Chlorine **C**

Operator

- None **N**
- Lever With Locking Device . . **L**
- Locking Latching Lever . . . **LL**
- Extended Lever **E**
- Gear **G**
- Gear With Locking Device . . **GL**
- Automated (Specify) **A**

Seat

- TFM (Standard) **P16**
- Other (Specify) **Z**

Seat Style

- Soft Style . . . **A**

Packing

- PTFE V-Ring **T**
- Graphite **G**

Stem

- 316 Stainless Steel (CF8M) . . . **6**

Ball

- 316 Stainless Steel (CF8M) . . . **6**

*Schedule 40 only.

Consult factory for alternate materials.

Product Availability Quick Reference Table

Body Configuration	Port	ANSI Pressure Class	Locking Lever							Enclosed Gear		Tufline Figure Number
			1/2	3/4	1	1 1/2	2	3	4	6	8	
1-Piece Flanged	Reduced	150		●	●	●	●	●	●			511R
		300		●	●	●	●	●	●			513R
2-Piece Flanged	Full	150	●	●	●	●	●	●	●	●	●	521F
		300	●	●	●	●	●	●	●	●	●	523F
	Reduced	150								●	●	521R
		300								●	●	523R
3-Piece Screwed End Socket Weld End Butt Weld End	Full	300						●				533F*
		600	●	●	●	●						536F
		600	●	●	●	●	●					536R

*533F valves are class 600 valves that all derated to operate at 1,000 PSI @ 100° F.

CRANE ChemPharma, Xomox & Matryx® Actuators.

Tufline Valves are available as part of a complete valve package.

Actuators are available in three models:

- Double acting vane
- Rack & pinion spring return
- Electric

Tufline automated valve packages assure you of single-source responsibility for flow control equipment.

With Tufline valves, Matryx and CRANE ChemPharma, Xomox actuators, Xomox control accessories, and Tufline problem solving expertise, our customers are assured of valve packages that will provide optimum performance in any application.

Comprehensive side-by-side testing confirms that the Matryx and CRANE ChemPharma, Xomox rack and pinion actuators provide longer service life with more consistent torque.

Solid performance data means processors can size actuators with more of a confidence factor and less of a “fudge-factor”. Initial cost, repair costs, replacement costs, and costly downtime can all be reduced.

Rack and pinion actuators are available in both double-acting and spring-return models with both 90° and 180° rotation.

CRANE ChemPharma, Xomox Automation & Service Centers.

Strategically located CRANE ChemPharma, Automation & Service Centers provide a variety of services. These range from standard repair to major modification and accessory packaging.

