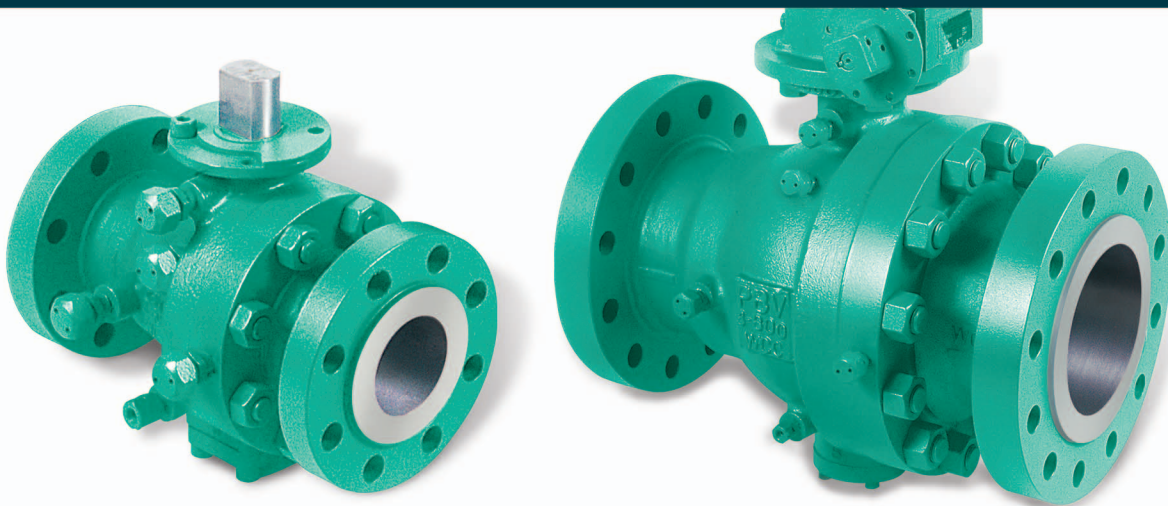
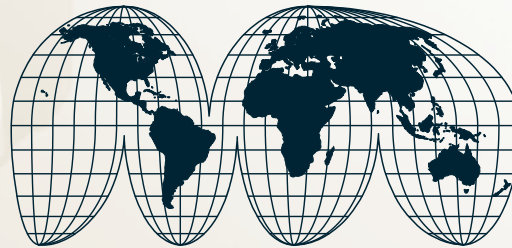


Smart Solutions. Powerful Products.



## PBV<sup>®</sup> Two-Piece Flanged Trunnion Supported Ball Valves



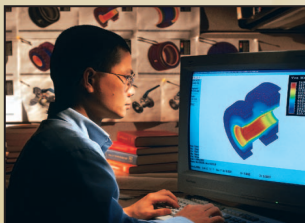
## Manufacturer of Quality Valve Products Around the Globe

**At Forum™ Energy Technologies we are committed to improving our clients' operational and financial performance by supplying the most comprehensive range of valve products in the industry through our family of trusted valve brands.**



### **Engineering Expertise**

Forum™ utilizes the latest state of the art engineering software to provide custom design services for any application. Finite element analysis is just one of many Design Verification Tools FET uses for designing valves to specific customer requirements.



### **CAD & NC Capabilities**

With FET's fast and efficient workflow, CAD drawings can be released to the network for manufacturing and purchasing. All computer generated machine programs can be quickly changed for weld overlays or other processes. The result is faster deliveries.



### **Accurate Inventories**

Daily cycle counting & order picking using wireless barcode guns and automated part delivery systems results in more accurate inventories and faster product delivery.



### **Quality Control**

All FET Companies manufacture quality products designed and tested to meet the standards of Qualifying Authorities around the world. Advanced engineering and our Quality Management System assure that our valve products continue to exceed your expectations for performance.



### **Customer Service**

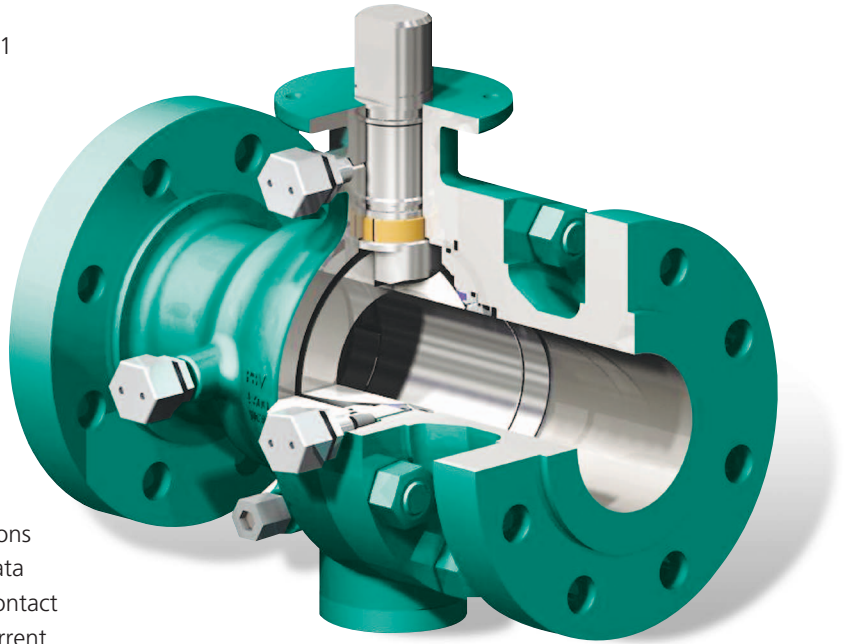
Forum™'s Customer Service Department is fully staffed with trained customer service representatives ready to help you with your ordering information, technical specifications and logistics.

# PBV® Series 5800/6800 Two-Piece Flanged Trunnion Supported Ball Valve

## The Professional Choice for Dependable, Long Lasting Service.

### Standard Features

- WCB/WCC Bodies and Adapters
- O-Ring Stem Seal Design backed by Firesafe Seal
- Valves Built and tested to API 6D
- Valves meet ASME B16.34, B16.10, B16.5 and BS 5351
- ISO 5211 Compatible Mounting Pads
- Firesafe to API 607 or 6FA
- All Materials Meet NACE MR0175
- Emergency Seat and Stem Sealant Injection
- Carbon Steel with ENP Standard on Internal Trim (Ball, Seat and Stem)
- Locking Devices Standard for Lever or Gear Operated Valves
- Double Block & Bleed (DBB) in Both Opened and Closed Position
- Equipped with Drain Valve for DBB and Seat Integrity Verification



Due to upgrades in industry standards, material innovations and Forum™'s commitment to product advancement, data presented in this brochure is subject to change. Please contact your Forum™ sales representative for updated and/or current drawings and material compliance.

## Specifying PBV® Series 5800/6800 Valve Figure Numbers

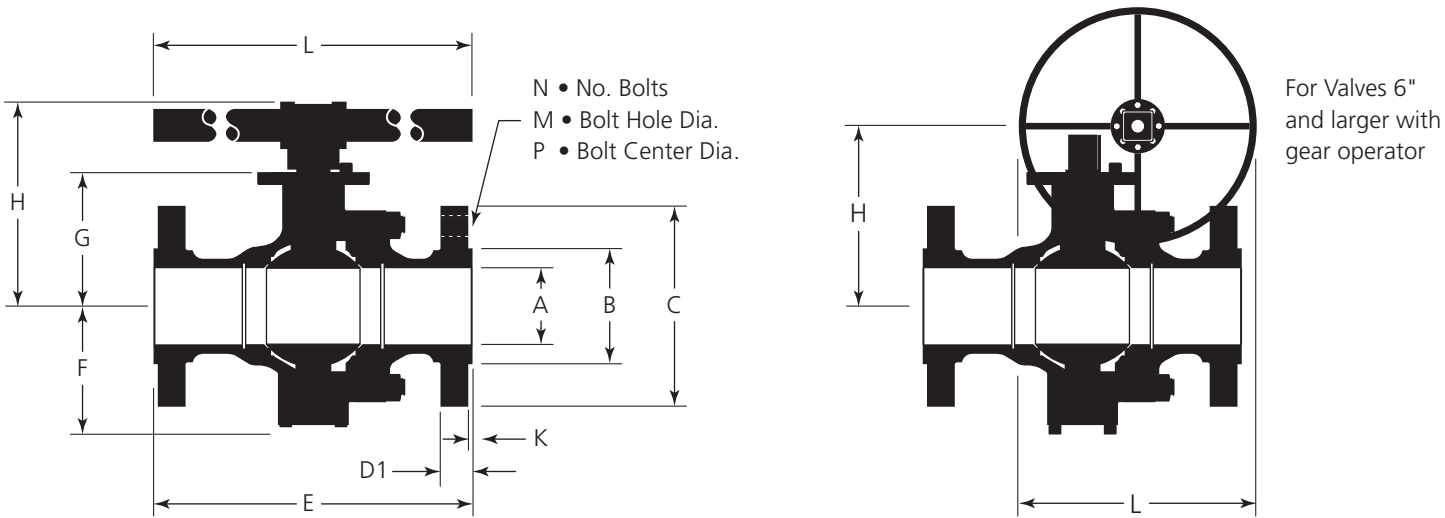
**Example: 6" C-6830-71-2200-DH-NG** This number represents a 6" ANSI Class 300, Full Port, Two-Piece Trunnion Ball Valve, Fire Tested with Emergency Grease Seals, with Raised Face, WCB Body Material, Carbon Steel with ENP Trim, Devlon® Seats, HNBR Seals, for NACE MR0175 Service and Gear Operated.

C	-	6	8	30	-	7	1	-	22	00	-	D	H	-	N	G	-
Material Code		Port Config.	Valve Type	Press. Class		Fire Tested	End Conn.		Body Material	Trim Material		Seat Material	Seal Material		NACE Option	Operator	Modifier Code
<b>C</b> International Carbon Steel		<b>5</b> Reduced	<b>8</b> Two-Piece Trunn. Type	<b>10</b> 150 CL		<b>7</b> Fire Tested w/Emerg. Grease Seals	<b>1</b> RF		<b>22</b> WCB/WCC	<b>00</b> Same as Body		<b>D</b> Devlon® or Equiv.	<b>H</b> HNBR		<b>N</b> NACE	<b>A</b> Actuator	
<b>D</b> Domestic Carbon Steel		<b>6</b> Full		<b>30</b> 300 CL			<b>3</b> RTJ		<b>28</b> LCC	<b>36</b> 316SS		<b>G</b> Glass Filled Teflon®				<b>B</b> Bare Stem	
				<b>60</b> 600 CL												<b>G</b> Gear	
																<b>L</b> Lever	

**Note:** Other body, trim, seat and seal materials are available upon request. Lever mounting pads are designed to dimensions in ISO 5211.

PBV® Series 6800

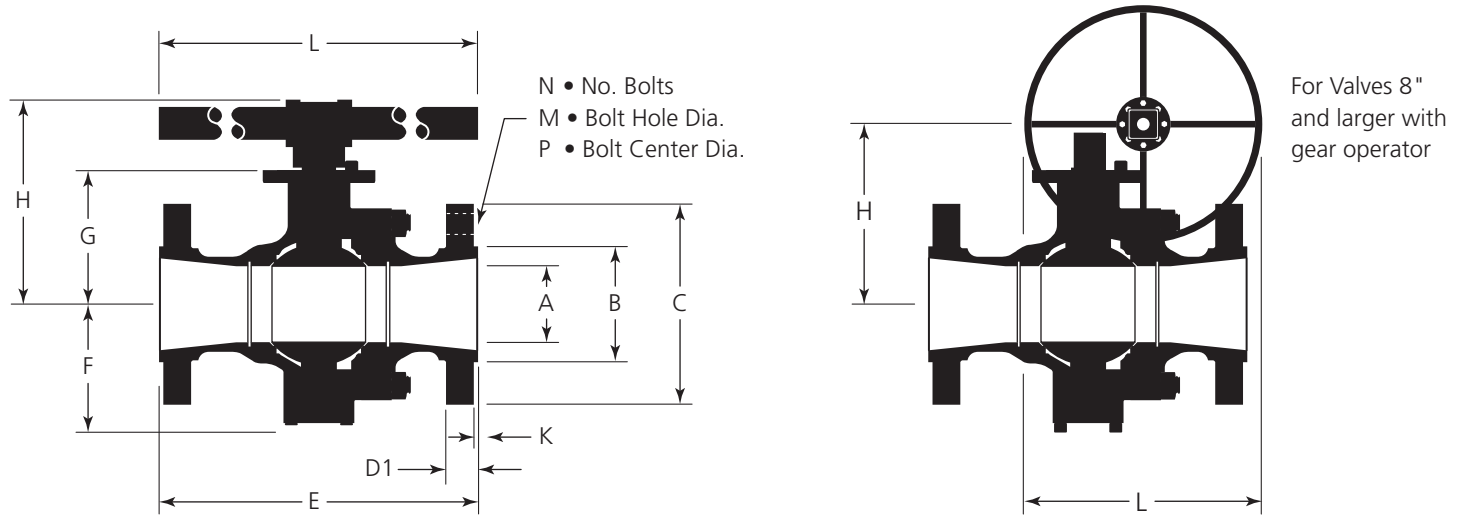
Dimensional Data (in.), Full Port



Size (in.)	Class	A	B	C	D1	E	F	G	H	K	N	M	P	L
2	150	2.06	3.62	6.00	0.62	7.00	4.30	3.94	6.53	0.06	4	0.75	4.75	17.00
	300	2.06	3.62	6.50	0.88	8.50	4.30	3.94	6.53	0.06	8	0.75	5.00	17.00
	600	2.06	3.62	6.50	1.25	11.50	4.30	4.13	6.41	0.25	8	0.75	5.00	20.00
3	150	3.13	5.00	7.50	0.75	8.00	5.80	4.88	7.17	0.06	4	0.75	6.00	20.00
	300	3.13	5.00	8.25	1.12	11.12	5.80	4.88	7.17	0.06	8	0.88	6.62	20.00
	600	3.13	5.00	8.25	1.50	14.00	5.80	5.38	9.28	0.25	8	0.88	6.62	28.00
4	150	4.06	6.19	9.00	0.94	9.00	6.86	6.10	10.01	0.06	8	0.75	7.50	28.00
	300	4.06	6.19	10.00	1.25	12.00	6.86	7.06	10.97	0.06	8	0.88	7.88	28.00
	600	4.06	6.19	10.75	1.75	17.00	6.86	7.06	10.97	0.25	8	1.00	8.50	28.00
6	150	6.00	8.50	11.00	1.00	15.50	8.27	8.75	10.91	0.06	8	0.88	9.50	20.00
	300	6.00	8.50	12.50	1.44	15.88	8.27	8.75	10.91	0.06	12	0.88	10.62	20.00
	600	6.00	8.50	14.00	2.13	22.00	8.27	8.75	10.91	0.25	12	1.13	11.50	20.00
8	150	8.00	10.62	13.50	1.12	18.00	10.38	11.92	14.05	0.06	8	0.88	11.75	24.00
	300	8.00	10.62	15.00	1.63	19.75	10.38	11.92	14.05	0.06	12	1.00	13.00	24.00
	600	8.00	10.62	16.50	2.25	26.00	10.38	11.92	14.05	0.25	12	1.25	13.75	24.00
10	150	10.00	12.75	16.00	1.18	21.00	12.05	13.76	15.89	0.06	12	1.00	14.25	24.00
	300	10.00	12.75	17.50	1.88	22.38	12.05	13.76	15.89	0.06	16	1.13	15.25	24.00
	600	10.00	12.75	20.00	2.75	31.00	12.05	13.76	15.89	0.25	16	1.38	17.00	24.00
12	150	12.00	15.00	19.00	1.25	24.00	14.17	16.34	22.91	0.06	12	1.00	17.00	30.00
	300	12.00	15.00	20.50	2.00	25.50	14.17	16.34	22.91	0.06	16	1.25	17.75	30.00
	600	12.00	15.00	22.00	2.88	33.00	14.17	16.34	22.91	0.25	20	1.38	19.25	30.00

# PBV® Series 5800

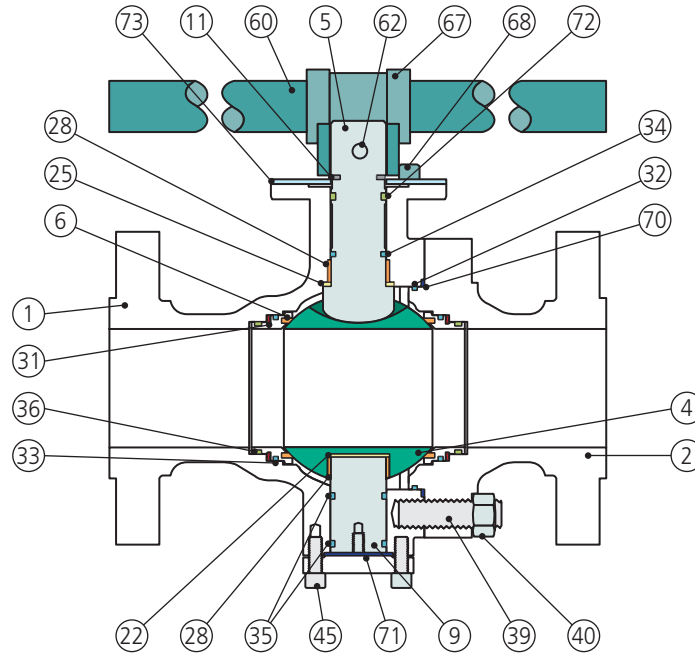
## Dimensional Data (in.), Reduced Port



Size (in.)	Class	A	B	C	D1	E	F	G	H	K	N	M	P	L
3 x 2	150	3 x 2	5.00	7.50	0.75	8.0	4.30	3.94	6.53	0.06	4	0.75	6.00	17.00
	300	3 x 2	5.00	8.25	1.12	11.1	4.30	3.94	6.53	0.06	8	0.88	6.62	17.00
	600	3 x 2	5.00	8.25	1.50	14.0	4.30	4.13	7.43	0.25	8	0.88	6.62	20.00
4 X 3	150	4 x 3	6.19	9.00	0.94	9.0	5.80	4.88	8.80	0.06	8	0.75	7.50	20.00
	300	4 x 3	6.19	10.00	1.25	12.0	5.80	4.88	8.19	0.06	8	0.88	7.88	20.00
	600	4 x 3	6.19	10.75	1.75	17.0	5.80	5.38	9.28	0.25	8	1.00	8.50	28.00
6 X 4	150	6 x 4	8.50	11.00	1.00	15.5	6.86	6.10	10.01	0.06	8	0.88	9.50	28.00
	300	6 x 4	8.50	12.50	1.44	15.9	6.86	7.06	10.97	0.06	12	0.88	10.63	28.00
	600	6 x 4	8.50	14.00	2.13	22.0	6.86	7.06	10.97	0.25	12	1.13	11.50	28.00
8 X 6	150	8 x 6	10.62	13.50	1.12	18.0	8.27	8.75	10.91	0.06	8	0.88	11.75	18.00
	300	8 x 6	10.62	15.00	1.63	19.8	8.27	8.75	10.91	0.06	12	1.00	13.00	18.00
	600	8 x 6	10.62	16.50	2.25	26.0	8.27	8.75	10.91	0.25	12	1.25	13.75	18.00
10 x 8	150	10 x 8	12.75	16.00	1.18	21.0	10.38	11.92	14.05	0.06	12	1.00	14.25	24.00
	300	10 x 8	12.75	17.50	1.88	22.4	10.38	11.92	14.05	0.06	16	1.13	15.25	24.00
	600	10 x 8	12.75	20.00	2.75	31.0	10.38	11.92	14.05	0.25	16	1.38	17.00	24.00
12 x 10	150	12 x 10	15.00	19.00	1.25	24.0	12.05	13.76	15.89	0.06	12	1.00	17.00	24.00
	300	12 x 10	15.00	20.50	2.00	25.5	12.05	13.76	15.89	0.06	16	1.25	17.75	24.00
	600	12 x 10	15.00	22.00	2.88	33.0	12.05	13.76	15.89	0.25	20	1.38	19.25	24.00

# PBV® Series 5800/6800

## Parts & Materials



### Parts & Materials • Typical 4" 6800 Steel Valve

No.	Qty.	Description	Material/Carbon Steel
1	1	Body	A216-WCB/WCC
2	1	Adapter Cap	A216-WCB/WCC
4	1	Ball	A105/A350 LF2 ENP
5**	1	Stem	A105/A350 LF2 ENP
6*	2	Seat Assembly	A105/A350 LF2 G/PTFE or Devlon®
9	1	Trunnion	A105/A350 LF2 ENP
10	1	Trunnion Plate	A352-LCC
11**	1	Snap Ring	Stainless Steel
22**	1	Bearing	TFMC
25*	1	Stem Thrust Bearing	TFMC
28*	2	Bearing Washer	Steel/PTFE
31**	2	Spring	Inconel® X-750
32*	1	O-Ring, Body	HNBR
33*	2	O-Ring, Seat	HNBR

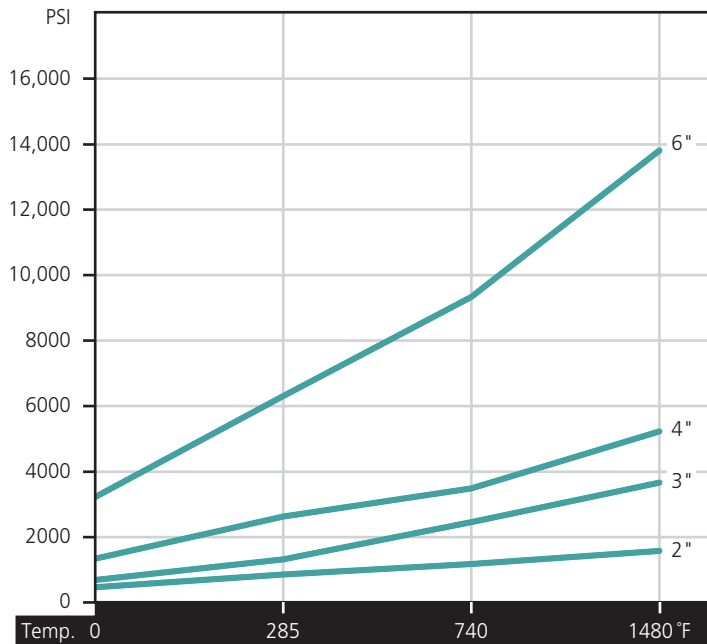
No.	Qty.	Description	Material/Carbon Steel
34*	2	O-Ring, Stem	HNBR
35*	2	O-Ring, Trunnion	HNBR
36*	—	Packing	Graphite
39	See Dim.	Stud	A193-B7M
40	See Dim.	Nut	A194-2HM
45	4	Cap Screw, Trunnion	A574 Modified
60	1	Handle	Carbon Steel
62	1	Handle Screw	F912
67	1	Handle Adapter	Ductile Iron
68	1	Cap Screw, Stop	A574 Modified
70*	1	Gasket, Body	Graphite
71*	1	Gasket, Trunnion	Graphite
72*	—	Packing, Stem	Graphite
73**	1	Stop Plate	Carbon Steel

**Note:** Recommended spare parts: \*after 2 yrs. service, \*\*after 5 yrs. service.

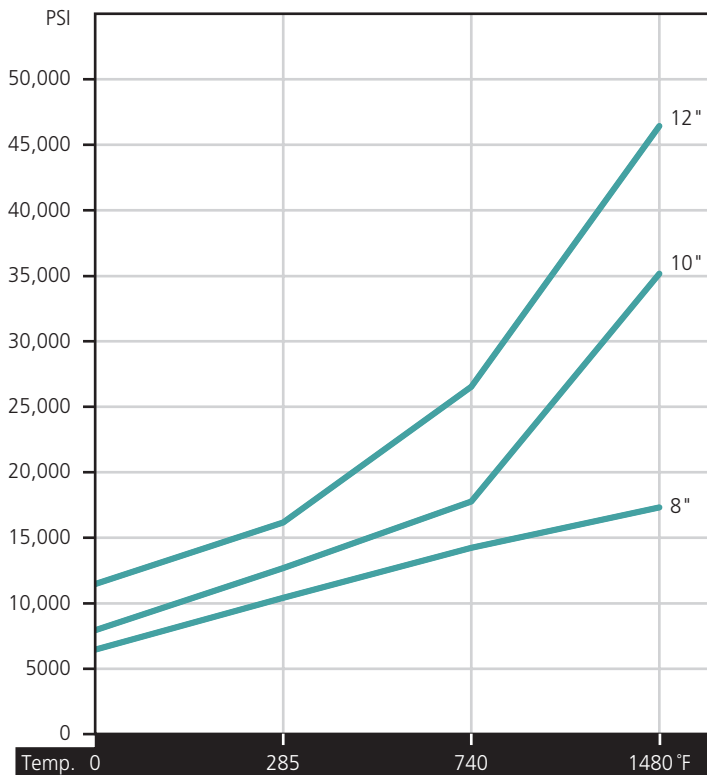
# PBV® Series 5800/6800

## Engineering Data

### Valve Break Torque • 2"-6" Port Size



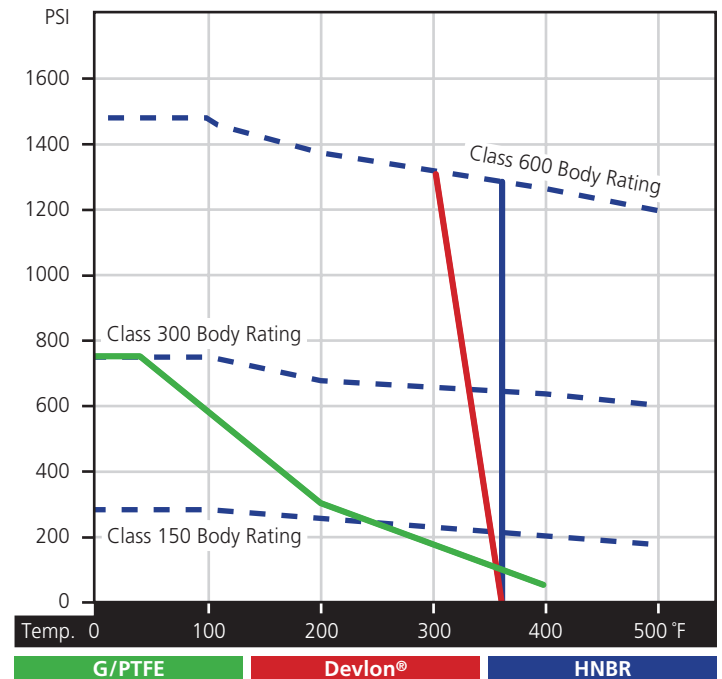
### Valve Break Torque • 8"-12" Port Size



#### Note:

Break to Open Torque values are for new valves with clean water. No additional safety factors have been added. For powered actuators it is recommended to add an additional 25% minimum. For dirty service add an additional 25% minimum. For dry gas service add 50% minimum. To prevent stem side loading and eliminate potential stem galling the following tolerances for mounting actuators are recommended. Actuator mounting bracket flanges must be parallel within .015". The max allowed runout on the stem coupling bores are .008".

### Pressure Temperature



### Product Range • 6800 Full Port, Flanged Ends

Shell Material	CL	Design Feature	End Connect.	Size (in.)						
				2	3	4	6	8	10	12
WCB/WCC	150	End Entry	RF/RTJ	X	X	X	X	X	X	X
	300	End Entry	RF/RTJ	X	X	X	X	X	X	X
	600	End Entry	RF/RTJ	X	X	X	X	X	X	X

### Product Range • 5800 Reduced Port, Flanged Ends

Shell Material	CL	Design Feature	End Connect.	Size (in.)					
				3	4	6	8	10	12
WCB/WCC	150	End Entry	RF/RTJ	X	X	X	X	X	X
	300	End Entry	RF/RTJ	X	X	X	X	X	X
	600	End Entry	RF/RTJ	X	X	X	X	X	X

### Maximum Valve Break Torques (in.-lbs.)

Press. psig	Port Size (in.)						
	2	3	4	6	8	10	12
0	540	720	1560	3180	6070	7530	11,230
285	900	1440	2580	6120	10,560	12,770	15,860
740	1320	2460	3600	9540	14,150	17,920	26,210
1480	1620	3720	5220	13,800	17,380	35,400	46,670

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Our experienced management team and employees are dedicated to solving our customers' problems. We invest in long term relationships and cooperate on product development with our clients, we consider them our partners.

## OUR CORE VALUES

**Integrity:** In everything we do, in every interaction, both internally and externally, we strive to operate with the upmost integrity and mutual respect.

**Long-term view:** We are building our company for the long-term, a company that we can be proud of.

**Open communication:** We believe partnerships with our customers and co-workers must be based on trust, professionalism and transparency.

**Customer focused:** Our products enhance our customer's performance and we listen to their needs and work with them to solve their challenges.

**Good place to work:** We are committed to creating a workplace that fosters innovation, teamwork and pride. Every team member is integral to our success and is treated equally and fairly.

**No one gets hurt:** The safety of our employees and customers is our first priority coupled with a healthy respect for the environment.

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12735 Dairy Ashford Road  
Stafford, Texas 77477  
281.637.2000 [m] 800.256.6193 [tf] 281.340.5499 [f]  
[www.f-e-t.com](http://www.f-e-t.com)