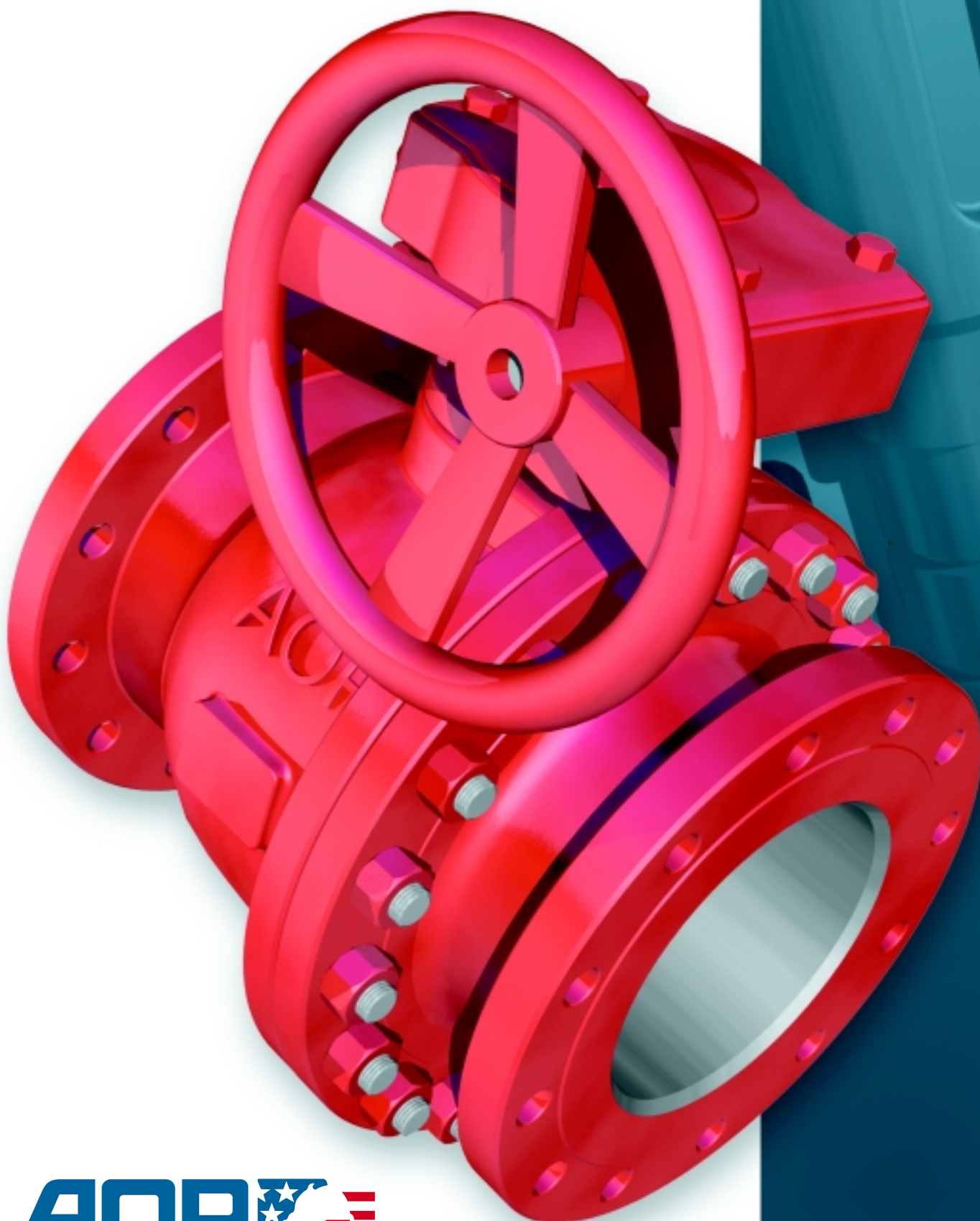


The World Standard in Quality Flow Management Products and Service

F Series Large Bore Floating Ball Valves





AOP Industries, Inc.

2101 South Broadway
Moore, Oklahoma 73160
P.O. Box 6979
Moore, Oklahoma 73153-0979
Phone: 405-912-4446
Toll Free: 800-654-4493
Fax: 405-912-4440
E-Mail: sales@aopind.com
Web Address: www.aopind.com



YOU HAVE A CHOICE, WHY NOT SELECT THE BEST?

AOP Industries, Inc. offers a wide range of floating ball valves. The design has been developed based on our customers demands and requirements. When you specify an AOP ball valve, you have selected the premier equipment offered in the industry. With our state of the art manufacturing techniques, our valves are produced to unparalleled craftsmanship with superior performance. All AOP ball valves are manufactured and tested in conformance with the requirements of ANSI B16.34 and API 6D specifications. These industry standards dictate end-to-end dimensions, flange configurations, port sizes, materials of construction, quality control procedures and testing requirements. AOP ball valves are stocked by a network of authorized

distributors to service the petroleum producing and refinery areas in the U.S. and Canada.

AOP products are marketed worldwide by domestic and international representatives. Many of these representatives maintain local inventories for immediate delivery. AOP offers check valves, API 6A and 6D gate valves, production chokes, needle valves, in addition to our threaded end, grooved end, socket weld, butt weld and API 6D flanged end ball valves. Call AOP Industries, Inc., our field representatives, or local distributors today for more information on how AOP can provide solutions for your upstream wellhead and downstream production needs.

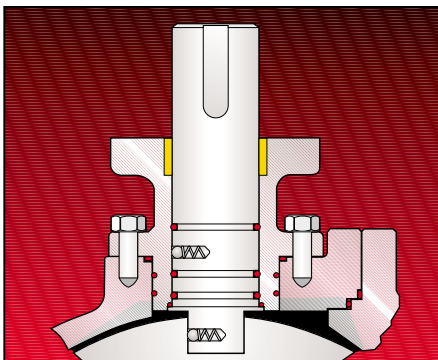
STANDARD FEATURES ON ALL F SERIES LARGE BORE (6" FP - 12" FP) BALL VALVES

AOP two-piece, bolted body flanged end valves are designed to meet or exceed today's abrasive and corrosive applications. All AOP F Series Large Bore (6" FP - 12" FP) Ball Valves incorporate the following standard features:

- *Stem is back-seated and positively retained; cannot be removed with the valve in service*
- *Antistatic Device (stem to body and stem to ball)*
- *Hard chrome plated ball for extended life and ease of operation*
- *Fire tested and certified to API 6FA and BS 6755 latest edition.*
- *RTFE seats standard in 6" FP - 12" FP class 150 and 300*
- *Conforms to NACE MR-01-75 standard with 316 stainless steel trim*
- *Available in both standard bore and full bore*
- *Ball includes pressure equalization hole to prevent trapped pressure in body cavity*

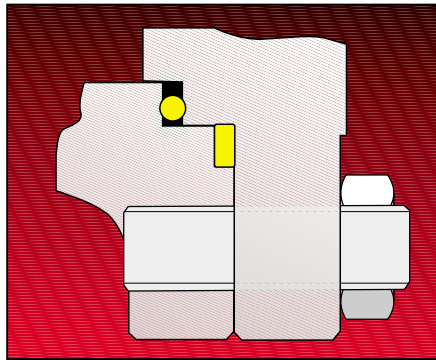
MULTI-SEAL STEM ANTISTATIC DEVICE

Multiple stem seals ensure a high degree of sealing. Antistatic devices are built in the valve stem to ensure electrical continuity between ball, stem and body, providing greater safety while handling volatile media.



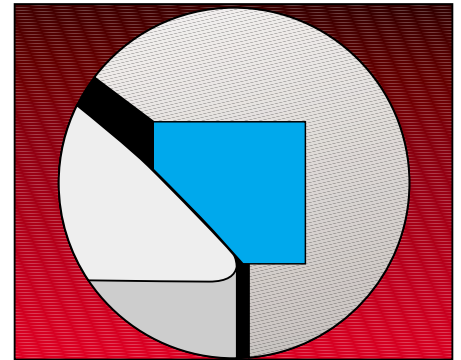
DOUBLE SEALING

AOP's double sealing on all envelope connections, stem, stem housing and body-joint gives maximum security for both above ground and buried installation.

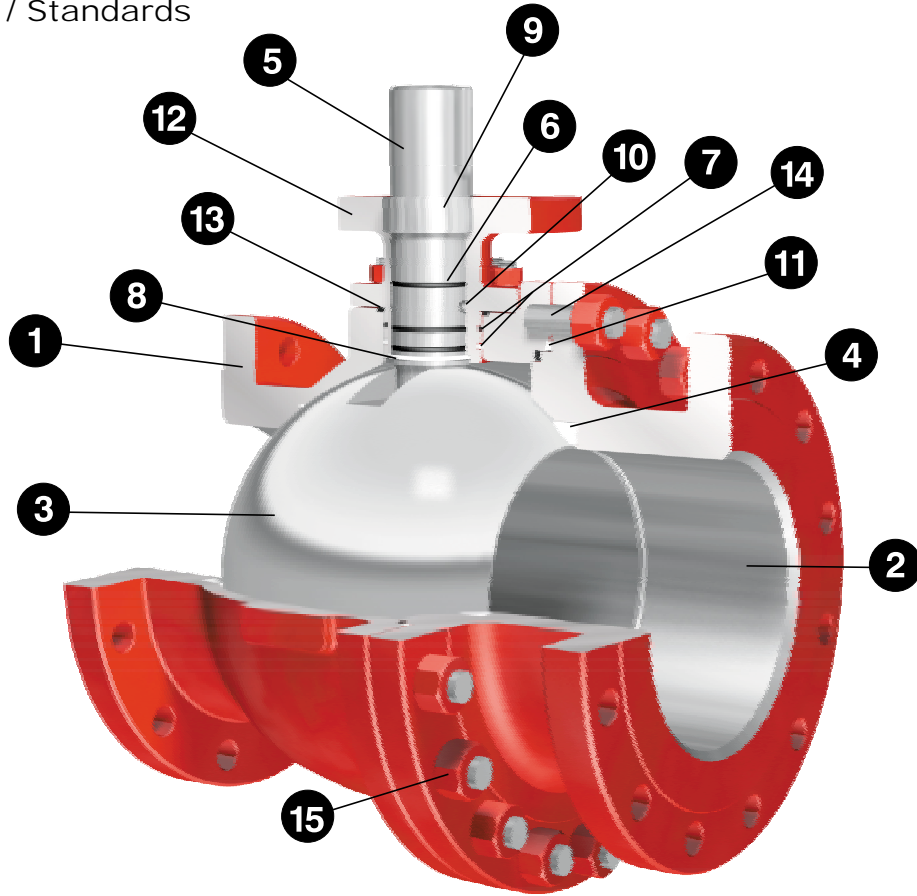


STANDARD REINFORCED TEFLON SEATS

AOP seats provide bubble-tight sealing at high and low pressures. In the event of seat damage (e.g., fire) the design incorporates metal-to-metal sealing. Optional seat materials include Nylon, PTFE, PEEK, Hostafion and Devlon.



F Series Large Bore (6" FP - 12" FP)
Materials List / Standards



AOP Quality Codes & Standards

API 6D	Pipeline Valves
ANSI B16.34	Valves, Flanges & Butt weld (when specified)
ANSI B16.10 / API 6D	Face-to-Face of Ferrous Valves
ANSI B16.5	Pipe Flanges
MSS-SP-6	Standard Finishes for Pipe Flanged Faces
MSS-SP-25	Standard Marking Systems for Valves
MSS-SP-55	Quality Standard for Steel Castings
MSS-SP-72	Flanged Ball Valves for General Services
API Q1 / ISO 9001	Quality Program Specification
MR-01-75	NACE Specification
API 6FA / BS 6755	Fire Safe Certification

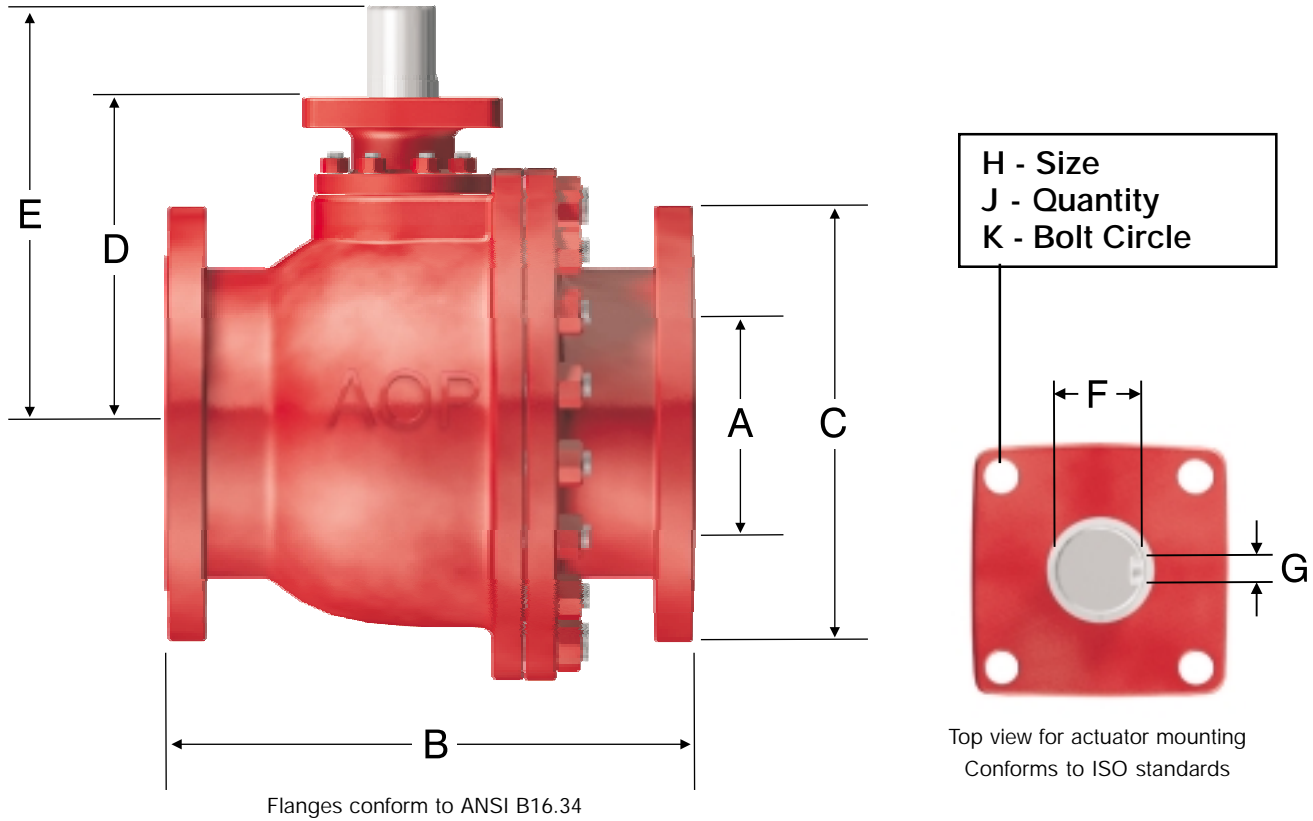
F Series Large Bore (6" FP - 12" FP) Materials List

INDEX	QTY REQD	DESCRIPTION	MATERIAL (Standard)
1	1	Body	ASTM A216 WCB Carbon Steel ASTM A351 CF8M Stainless Steel ASTM A352 LCC
2	1	Adapter	ASTM A216 WCB Carbon Steel ASTM A351 CF8M Stainless Steel ASTM A352 LCC
3	1	Ball	Hard Chrome Plated Ball 316 Stainless Steel (NACE)
4	2	Seat	PEEK Nylon Teflon
5	1	Stem	Hard Chrome Plated Carbon Steel 316 Stainless Steel (NACE)
6	3	Stem O-Ring	Viton
7	2	Bonnet O-Ring	Viton
8	1	Stem Thrust Bearing	Teflon
9	1	Bushing	Bronze/316 Stainless Steel (NACE)
10	2	Antistatic Device	304 Stainless Steel
11	2	Body Seals	Viton/ Graphite
12	1	Stem Bonnet	ASTM A216 WCB Carbon Steel ASTM A351 CF8M Stainless Steel
13	1	Bonnet Seal	Graphite
14	*	Stud	ASTM A193-B7 (B7M NACE) Carbon Steel ASTM A194 Gr. 8 Stainless Steel ASTM A320 -L7/L7M Low Temp Carbon Steel
15	*	Nut	Carbon Steel ASTM A194 Gr. 8 Stainless Steel ASTM A193-B7/B7M Low Temp Carbon Steel

*Quantity depends on valve size and pressure class

Note: All valves incorporating 316 Stainless Steel Trim conform to NACE MR-01-75. Teflon TM, Delrin TM, James Walker TM are copyrights of T.M. Dupont Co.; AFLAS TM is a copyright of ASAHI Glass Co.; Peek TM is a copyright of I.C.; Hostaffon TM is a copyright of Hoechst A.G.

F Series Large Bore (6" FP - 12"FP) Dimensions



F Series Large Bore (6" FP - 12" FP) Dimensional Data (in inches)

Size	ISO 5211 Flange	A	B	C	D	E	F	G	H	J	K	
FB #150	6"	F12	6.00	15.50	11.00	6.57	8.73	1.42	.94*	1/2"	4	4.92
FB #150	8"	F14	8.00	18.00	13.50	8.46	10.77	1.65	.47	5/8"	4	5.51
FB #150	10"	F16	10.00	21.00	16.00	11.57	14.15	2.60	.87	3/4"	4	6.50
FB #150	12"	F25	12.00	24.00	19.00	16.26	20.16	3.15	.87	5/8"	8	10.00
RB #150	8"	F12	8x6	11.50	13.50	6.57	8.25	1.42	.94*	1/2"	4	4.92
RB #150	10"	F14	10x8	13.00	16.00	8.21	10.45	1.65	.47	5/8"	4	5.51
RB #150	12"	F16	12x10	24.00	19.00	11.97	14.55	2.60	.87	3/4"	4	6.50
FB #300	6"	F14	6.00	15.88	12.50	6.95	9.27	1.65	.47	5/8"	4	5.51
FB #300	8"	F14	8.00	19.75	15.00	8.46	10.77	1.65	.47	5/8"	4	5.51
FB #300	10"	F16	10.00	22.38	17.50	11.97	14.55	2.60	.87	3/4"	4	6.50
FB #300	12"	F25	12.00	25.50	20.50	16.26	20.16	3.15	.87	5/8"	8	10.00
RB #300	8"	F14	8x6	16.50	15.00	7.11	9.11	1.65	.47	5/8"	4	5.51
RB #300	10"	F14	10x8	18.00	17.50	8.46	10.79	1.65	.47	5/8"	4	5.51
RB #300	12"	F16	12x10	19.75	20.50	11.97	14.55	2.60	.87	3/4"	4	6.50

*Dimension "G" on 6" FB and 8" RP CL 150 is width across flats on stem.

F Series Large Bore (6" FP - 12" FP) Base and Option Numbers

F Series Large Bore Assembly Base Numbers

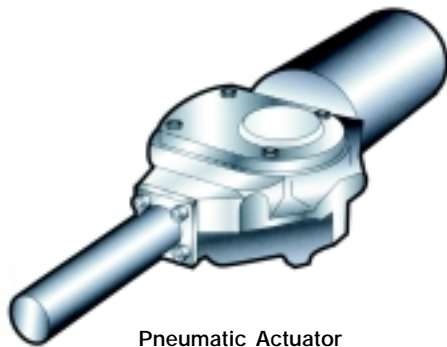
Size	Model	
	150 RF	300 RF
6" FP	6110	6310
8" RP	6111	6311
8" FP	6112	6312
10" RP	6113	6313
10" FP	6114	6314
12" RP	6115	6315
12" FP	6116	6316

ACTUATORS / GEAR OPERATOR

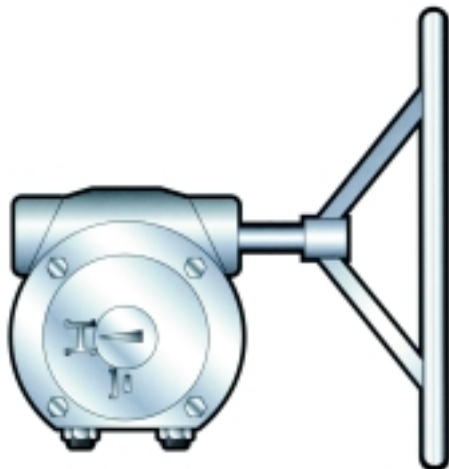
Pneumatic actuators, electric actuators, gear operators and accessories are available for mounting on AOP F Series Large Bore (6" FP - 12" FP) Ball Valves. Actuator mounting holes in the stem boss surface are standard with all F Series Ball Valves. Factory-mounted valve actuator packages mean single-source efficiency, responsibility and warranty. Consult AOP for actuator sizing and selection information.

ENDURO-BOND COATING

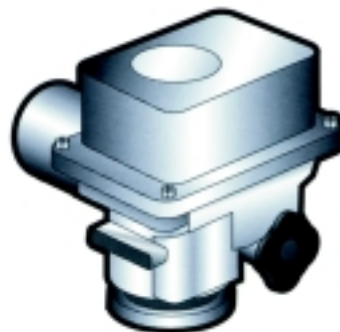
Enduro-Bond coating available for increased life span comparable to stainless steel or aluminum bronze.



Pneumatic Actuator



Gear Operator



Electric Actuator

Assembly / Option Numbers

Base No.	Suffix Codes							
XXXX	-	X	X	X	X	X	XX	XX
								Options 99 None
								Pipe Size 99 Standard
								Actuation 1 Handle 2 Square Nut 3 Gear Operator 4 Gear Operator w/ Locking Device 9 Bare Stem
								Seals 1 Buna-N 2 Viton 3 LT Buna-N 4 EPDM 5 Aflas 7 James Walker 8 PC Buna-N 9 HSN
								Seats 1 Delrin 2 PTFE 3 RTFE 4 Nylon 5 PEEK 6 FFM (Hostafion) 7 Devlon
								End Connection 6 Flanged RF 7 Flanged RTJ 8 Butt weld 9 RF x BW 0 RTJ x BW
								Trim Material (Ball / Stem) 1 CS / CS Standard (CS Trim Non-NACE) 2 316 SS / 316 SS (NACE SS Trim Only)
								Body / Adapter Material 1 Carbon Steel 2 CF8M 4 Low Temp Carbon Steel (LCC) 6 Coated Carbon Steel

Torque Values in-Lbs

Pressure	Bore Size			
	6" FP	8" FP	10" FP	12" FP
285	3540	7,965	13,275	23,895
740	5310	11,505	20,355	33,630

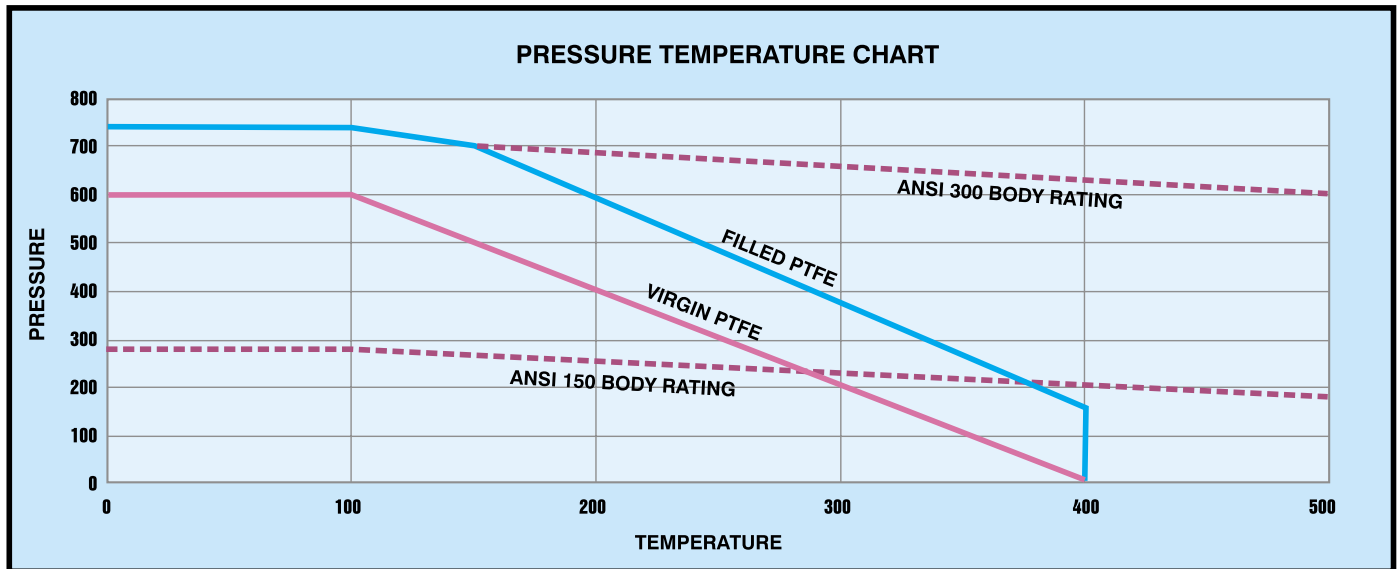
Torques are based on clean wet service. If other conditions exist, a service factor should be applied. Consult AOP for specific service.

Flanged Valve CV Values

Class	Size						
	6" FP	8" RP	8" FP	10" RP	10" FP	12" RP	12" FP
150	5350	2500	10,750	5000	17,750	8400	26,030
300	5300	2400	10,500	4600	17,250	7800	25,000

Flow in US gallons of water per minute with a 1 psi pressure drop across the valve. Use this value in the flow formulas.

Pressure/Temperature



WARRANTY

AOP Industries products are guaranteed against defects of material workmanship for one (1) year from date of invoice, provided such products are used normally and within the service and pressure range for which they were manufactured. Claims for breach of the Warranty shall be limited to replacement, free of charge. F.O.B. Moore, Oklahoma, of any part or product that proves defective in material or workmanship, upon written notice of such defect given in thirty (30) days and return of such item to AOP Industries, Inc., Moore, Oklahoma. Costs of labor, freight, drayage, or other similar charges shall be at the customer's expense. This Warranty is limited in extent to the Warranty, if any, which the user receives from the manufacturers of any component parts. All other warranties or liabilities expressed, implied, oral or statutory, including any warranty of merchantability or fitness for a particular purpose are expressly denied. In no event shall AOP, its agents or employees be liable for injury or damage to any person or property whatsoever or for any special, indirect, secondary, or consequential damage of any nature however arising.

ORDERS POLICY

All orders are subject to acceptance by AOP Industries, Inc. home office. Prices are subject to change without notice and any errors in published prices are subject to correction. No materials may be returned for credit without written authorization from AOP. Credit will not be issued for materials after one (1) year from date of purchase. AOP reserves the right to deduct reconditioning and handling charges when issuing credits for returned material. Products of special design will not be accepted for credit.



2101 South Broadway, Moore, Oklahoma 73160
 P.O. Box 6979, Moore, Oklahoma 73153-0979
 Phone: 405-912-4446 Toll Free: 800-654-4493 Fax: 405-912-4440
 E-Mail: sales@aopind.com
 Web Address: www.aopind.com



AOP Industries, Inc.

2101 South Broadway

Moore, Oklahoma 73160

P.O. Box 6979

Moore, Oklahoma 73153-0979

Phone: 405-912-4446

Toll Free: 800-654-4493

Fax: 405-912-4440

E-Mail: sales@aopind.com

Web Address: www.aopind.com