


PBV[®] FORGED OILPATCH

FLOATING BALL VALVES

 +1 281 637 2000

 f-e-t.com/PVB

 ForumVS.PVB@f-e-t.com



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PBV® Forged Oilpatch Floating Ball Valves

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PBV Forged Oilpatch Floating Ball Valves

How to Order and Pressure Temperature Ratings

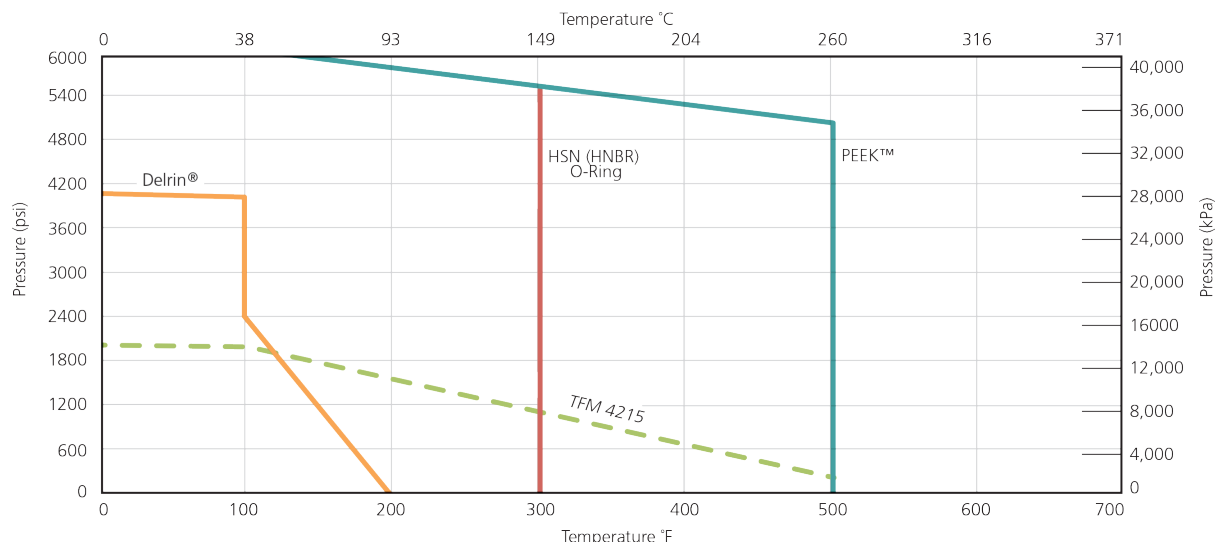
Specifying Series P134 / P234 / P334 and P135 / P235 / P335

Forged Oilpatch Floating Ball Valve Figure Numbers

Example: 2" P134 -3RH-SC — This number represents a 2" P Series with A105 Forged Steel Construction, 3-Piece Body Design in Reduced Port Configuration with Delrin® Seats, for 3000 WOG pressure, with HSN (HNBR) Stem Seals and Threaded End Connections, no modifications.

P	1	3	4	-	3	R	H	-	SC
Series	Material	Design	Port		Pressure	Seats	Stem Seal		End Connection
P Oilpatch	1 A105	3 3-Piece Body	4 Reduced Port		2 2000 WOG	R Delrin®	H HSN (HNBR)		SM Male x Female Threaded End
	2 CF8M		5 Full Port		3 3000 WOG	P PEEK™	L Graphite		SC Threaded End NPT
	3 LF2				4 4000 WOG	C TFM 4215			SW Socketweld End
					6 6000 WOG				SS Threaded End NPT x Socketweld End

Pressure Temperature



PBV Forged Oilpatch Floating Ball Valves

Design Features, Industry Standards, and Quality Commitment

Stem

- Blowout Proof Stem Design
- 17-4PH Stem for High-Pressure Service

Stem Seals

- Triple Stem Seals complete with Thrust Washer, O-Ring, and Packing

Seats and Seals

- Seats and Seals to your specifications
- Pressure Relief Grooves as standard for all seats
- O-Ring Backup Seal provides low torque for higher pressure valves during operation

Ball

- Precision Stainless Steel Floating Ball provides positive shutoff
- Designed with Pressure Equalizing Hole
- 17-4PH Balls for high-pressure service

Locking Device

Handle

- Heavy-duty Cast Handle with investment heavy-cast locking device as standard for all sizes

Body

- Heavy-duty Solid Forged 3-Piece Threaded Design allows for different end connections, full-port, and extended SW ends
- 100% Shell Hydro tested to 1.5 times working pressure

Body O-Ring

- O-Ring Seal prevents fluid contact with connection threads and external leakage

Firesafe Graphite Gasket

- NACE MR0175 Standard Design

Socket Weld Ends

- Allows for welding in-line without damaging seats

Tack Weld

- Ensures no removal of endpiece

Industry Standards

Valve Shell Pressure Temperature: ASME B16.34
 Seat Pressure Temperature: See PBV Pressure Temp Rating
 Shell Wall Thickness: ASME B16.34
 Face-to-Face Dimension: Manufacturer Standard
 End Dimension (Socketwelding End): ASME B16.11

End Dimension (Threaded End): ASME B2.1
 Pressure Test: API 598
 Design Standards: API 608, ASME B16.34, NACE MR0175
 Fire Test: API 607 5th Edition

Manufacturer of Quality Valve Products Worldwide

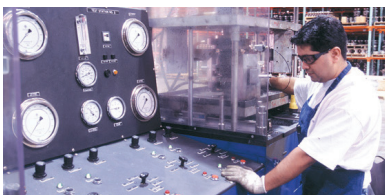
At FET, we are committed to improving our clients' operational and financial performance by supplying the industry's most comprehensive range of valve products through our family of trusted valve brands.

Quality Control

All FET valve brands manufacture quality products designed and tested to meet the standards of qualifying authorities worldwide. Advanced engineering and our quality management system ensure that our valve products exceed your performance expectations.

Customer Service

FET's customer service department is fully staffed with trained representatives ready to help you with ordering information, technical specifications, and logistics.



PBV Series PC / PCH / PCL / PCXH / PCSH Cast & SS Floating Ball Valves

The Cast Solution for Pressures from 1500 to 5000 psi and All Stainless Steel PCSH for Corrosive Applications

Standard Features

Series PC/PCL: 1" FP through 4" RP at 1500-2500 psi WOG

Series PCH: 1" FP through 2 1/2" RP at 3000 psi WOG

Series PCXH: 2" RP at 5000 psi WOG

Series PCSH: 2" RP and 2" FP at 3000 psi WOG

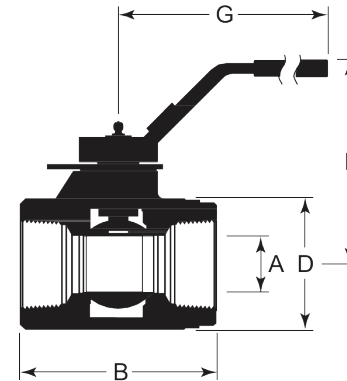
- 316 Stainless Steel Trim
- Locking Devices for Added Security
- Two-Piece Construction
- Rugged Handle and Superior Wall Thickness for Tough Oilpatch Applications
- Blowout-Proof, Backseated Stem Design for Added Safety
- Seats and Seals to Your Specifications
- Grease Fitting on Stem Allows Constant Lubrication and Protection Against Corrosion and Moisture
- Meets NACE MR0175 2002



Dimensional Data (in.)

Series PCL, ASTM A352 Gr. LCC | Series PC, ASTM A216 Gr. WCB

Size (in.)	Pressure (psi)	A	B	D	F	G	Weight (lbs.)	Valve Figure Numbers
1 x 1	2500	1	4	2 ^{27/64}	3 ^{9/64}	6 ^{19/64}	4	PC-NV/PCL-NR
1 1/2 x 1 1/2	2500	1 1/2	5 1/2	3 1/2	5 ^{17/32}	8 1/2	14	PC-NV/PCL-NR
2 x 1 1/2	2500	1 1/2	5 1/2	3 1/2	5 ^{17/32}	8 1/2	13	PC-NV/PCL-NR
2 x 2	2160	2	6	4 ^{19/64}	5 ^{29/32}	8 1/2	20	PC-NV/PCL-NR
2 1/2 x 2 1/2	2160	2 ^{9/16}	7	5 ^{13/64}	6 ^{19/32}	15	32	PC-NV/PCL-NR
3 x 2	2160	2	7 ^{19/64}	4 ^{29/64}	5 ^{29/32}	8 1/2	23	PC-NV/PCL-NR
3 x 3	1500	3	8 3/4	5 ^{5/8}	6 ^{7/8}	15	50	PC-NV/PCL-NR
4 x 3	1500	3	8 3/4	5 ^{5/8}	6 ^{7/8}	15	45	PC-NV/PCL-NR
4 x 4	750	4 ^{1/16}	9 3/8	7 1/2	7 ^{7/8}	18 ^{7/64}	71	PC-NV/PCL-NR



Series PCH, ASTM A216 Gr. WCB

Size (in.)	Pressure (psi)	A	B	D	F	G	Weight (lbs.)	Valve Figure Numbers
1 x 1	3000	1	4	2 ^{27/64}	3 ^{9/64}	6 ^{19/64}	4	PCH-NV
2 x 1 1/2	3000	1 1/2	5 1/2	3 1/2	5 ^{17/32}	8 1/2	13	PCH-NV
2 x 2	3000	2	6	4 ^{19/64}	5 ^{29/32}	8 1/2	20	PCH-NV

Series PCXH, ASTM A216 Gr. WCB

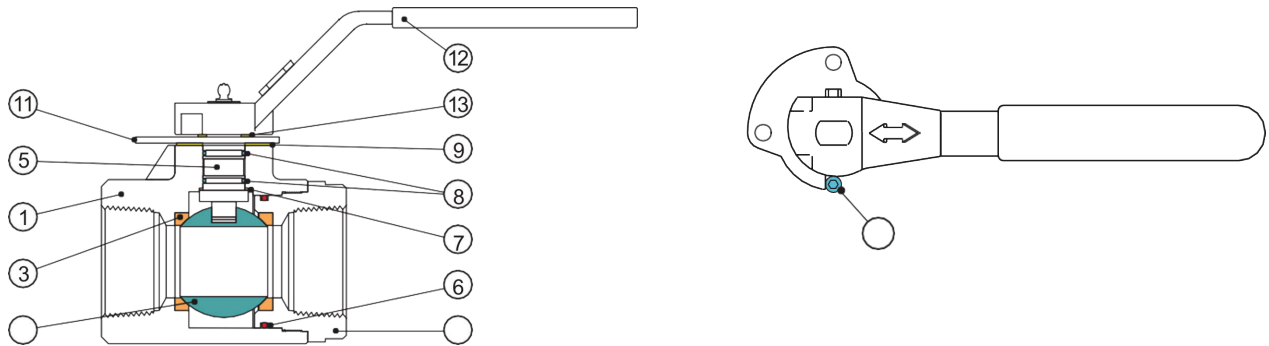
Size (in.)	Pressure (psi)	A	B	D	F	G	Weight (lbs.)	Valve Figure Numbers
2 x 1 1/2	5000	1 1/2	5 1/2	3 1/2	5 ^{17/32}	8 1/2	15	PCXH-PV

Series PCSH, Stainless Steel CF8M

Size (in.)	Pressure (psi)	A	B	D	F	G	Weight (lbs.)	Valve Figure Numbers
2 x 1 1/2	3000	1 1/2	5 1/2	3 1/2	5 ^{17/32}	8 1/2	14	PCSH-NV
2 x 2	3000	2	6	4 ^{19/64}	5 ^{29/32}	8 1/2	20	PCSH-NV

PBV Series PC / PCH / PCL / PCXH / PCSH Cast & SS Floating Ball Valves

Parts, Materials, & Engineering Data

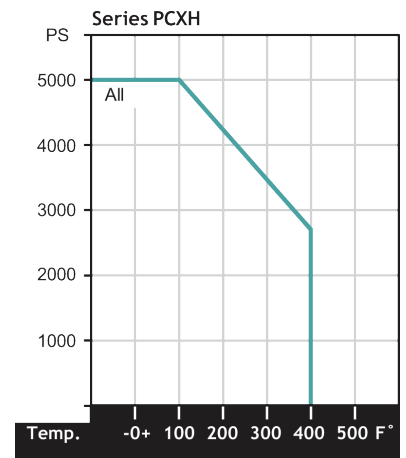
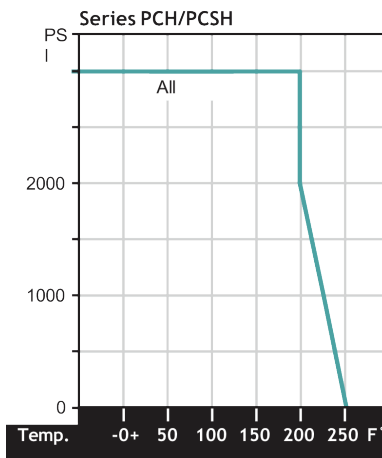
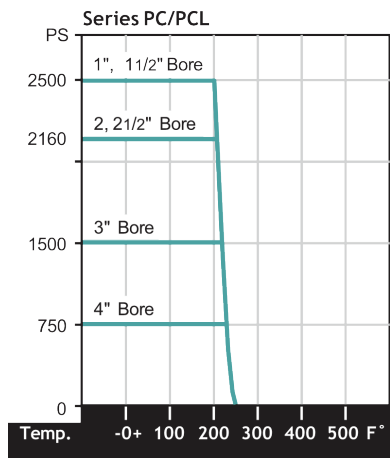


Parts & Materials

No.	Qty.	Description	Series PC / PCH	Series PCL	Series PCXH	Series PCSH
1	1	Body	ASTM A216 Gr. WCB	ASTM A352 Gr. LCC	ASTM A216 Gr. WCB	Stainless Steel CF8M
2	1	Adapter	ASTM A216 Gr. WCB	ASTM A352 Gr. LCC	ASTM A216 Gr. WCB	Stainless Steel CF8M
3	2	Seat	Nylon + MOS ₂	Nylon + MOS ₂	PEEK™	Nylon + MOS ₂
4	1	Ball	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel
5	1	Stem	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel
6	1	Body Seal	Viton	Low Temp Buna	Viton	Viton
7	1	Thrust Bearing	PTFE	PTFE	PTFE	PTFE
8	2	Stem Seal	Viton	Low Temp Buna	Viton	Viton
9	1	Spacer	PTFE	PTFE	PTFE	PTFE
10	1	Stop Screw	Steel	Steel	Steel	Steel
11	1	Stop Plate	Steel Cadmium Plated	Steel Cadmium Plated	Steel Cadmium Plated	Steel Cadmium Plated
12	1	Handle	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
13	1	Retainer	Spring Steel	Spring Steel	Spring Steel	Spring Steel

Note: Materials and specifications are subject to change without notice.

Pressure Temperature



Break Torques (ft.-lbs.)

Size (in.)								
1 x 1	1 1/2 x 1 1/2	2 x 1 1/2	2 x 2	2 1/2 x 2 1/2	3 x 2	3 x 3	4 x 3	4 x 4
29	50	50	94	94	94	152	152	250

PBV Series PE Cast Floating Ball Valves

The Economical Solution for Pressures from 750 to 1000 psi

Standard Features

Series PE: 2", 3", and 4" RP at 750-1000 psi WOG

- 316 Stainless Steel Trim
- Two-Piece Construction
- Blowout-Proof Stem Design
- Seats and Seals to Your Specifications
- Grease Fitting on Stem Allows Constant Lubrication and Protection Against Corrosion and Moisture
- Reinforced Second Generation High-Performance Teflon® TFM Seat
- Meets NACE MR0175 2002



Dual-locking devices are standard for material custody transfer applications.

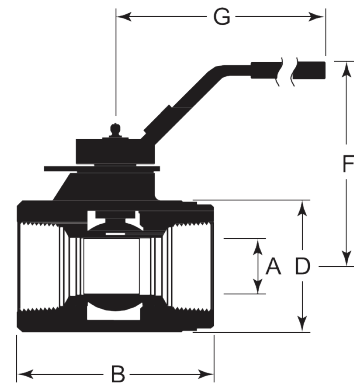


Ideally suited for tank battery and production lines replacing lubricated cast iron plug valves.

Dimensional Data (in.)

Series PE, ASTM A395 Ductile Iron

Size (in.)	Pressure (psi)	A	B	D	F	G	Weight (lbs.)	Valve Figure Numbers
2 x 1 1/2	1000	1 1/2	5 1/2	3 1/2	5 17/32	8 1/2	13	PE-CV
3 x 2	750	2	7 19/64	4 29/64	5 29/32	8 1/2	17	PE-CV
4 x 3	750	3	8 3/4	5 5/8	6 7/8	15	36	PE-CV

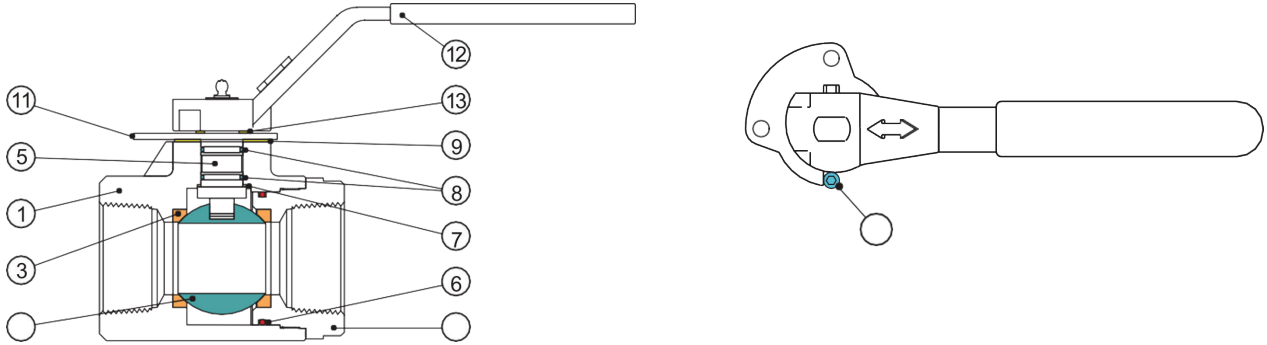


All PBV valves are manufactured in strict conformance with the following industry standards:

- ISO 9001 Quality System
- NACE MR0175 2002 sulfide stress cracking resistant metallic materials for oilfield equipment
- Canadian Registration Number (CRN) products registered in all provinces and territories

PBV Series PE Cast Floating Ball Valves

Parts, Materials, & Engineering Data



Parts & Materials

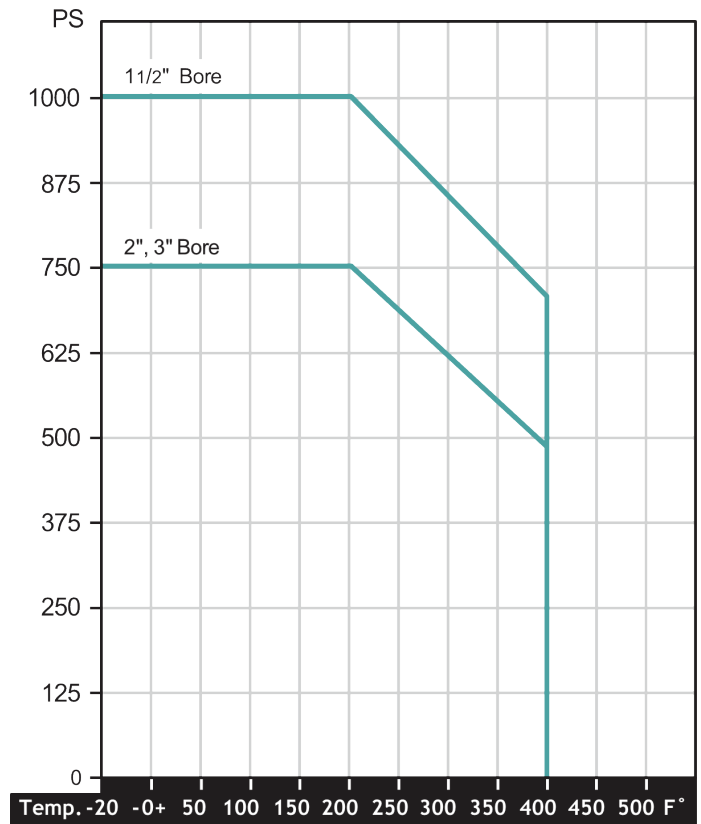
No.	Qty.	Description	Materials, Series PE
1	1	Body	ASTM A395 Ductile Iron
2	1	Adapter	ASTM A395 Ductile Iron
3	2	Seat	TFMC
4	1	Ball	316 Stainless Steel
5	1	Stem	316 Stainless Steel
6	1	Body Seal	Viton
7	1	Thrust Bearing	PTFE
8	2	Stem Seal	Viton
9	1	Spacer	PTFE
10	1	Stop Screw	Steel
11	1	Stop Plate	Steel Cadmium Plated
12	1	Handle	Carbon Steel
13	1	Retainer	Spring Steel
14	1	Chain	Carbon Steel
15	1	Ribbon Lock	Copper Tube

Note: Materials and specifications are subject to change without notice.

Break Torques (ft.-lbs.)

Size (in.)		
2 x 1 1/2	3 x 2	4 x 3
50	94	152

Pressure Temperature





OUR CORE VALUES

No One Gets Hurt

The safety of our employees and customers is our first priority coupled with a healthy respect for the environment.

Integrity

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

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.

FORUM ENERGY TECHNOLOGIES



12735 Dairy Ashford Road
Stafford, TX 77477



+1 281 637 2000 (General)
+1 281 637 2097 (Sales)



f-e-t.com/valve-solutions



ForumVS.Sales@f-e-t.com

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