

Smart Solutions. Powerful Products.



## PBV<sup>®</sup> Forged Oilpatch Floating Ball Valves

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## PBV® Forged Oilpatch Floating Ball Valves

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## PBV® Forged Oilpatch Floating Ball Valves

### How To Order & Pressure Temperature Ratings

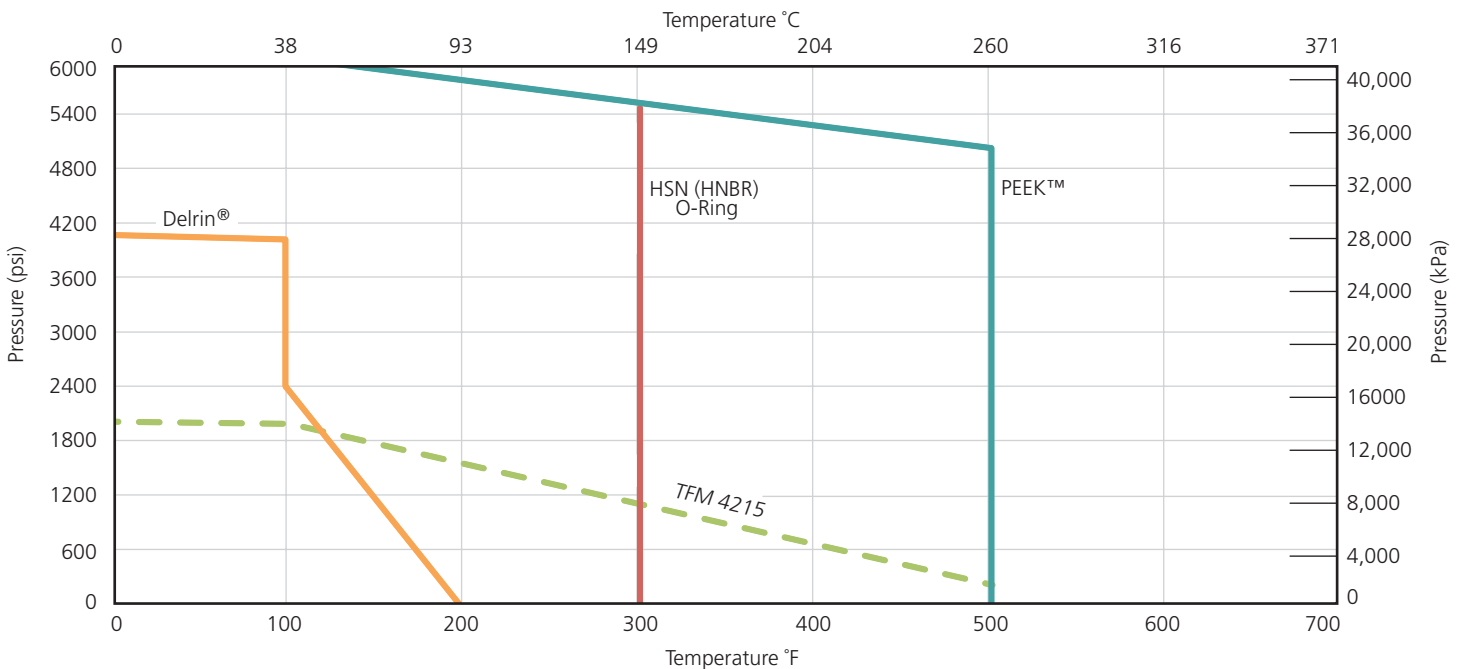
#### Specifying Series P134/P234/P334 & P135/P235/P335

#### 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 Conn.
<b>P</b> Oilpatch	<b>1</b> A105	<b>3</b> 3-Piece Body	<b>4</b> Reduced Port		<b>2</b> 2000 WOG	<b>R</b> Delrin®	<b>H</b> HSN (HNBR)		<b>SM</b> Male x Female Threaded End
	<b>2</b> CF8M		<b>5</b> Full Port		<b>3</b> 3000 WOG	<b>P</b> PEEK™	<b>L</b> Graphite		<b>SC</b> Threaded End NPT
	<b>3</b> LF2				<b>4</b> 4000 WOG	<b>C</b> TFM 4215			<b>SW</b> Socketweld End
					<b>6</b> 6000 WOG				<b>SS</b> Threaded End NPT x Socketweld End

#### Pressure Temperature



**Note:** Consult ASME B16.34 for Body and Adapter Material Pressure / Temperature Ratings.

# PBV® Forged Oilpatch Floating Ball Valves

## Design Features, Industry Standards & Quality Commitment

### Stem

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

### Stem Seals

Triple Stem Seals Completed 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. All Balls Designed with Pressure Equalizing Hole. 17-4PH Balls for High Pressure Service.

### Tack Weld

Ensures Endpiece Cannot be Removed

### 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

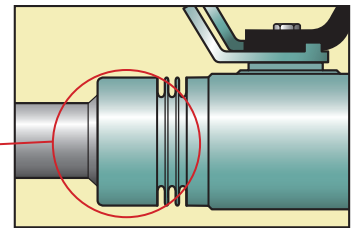
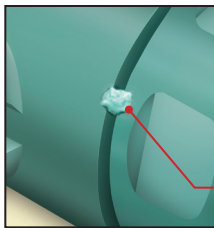
O-Ring Seal Prevents Fluid Contact with Connection Threads and External Leakage.

### Firesafe Graphite Gasket

NACE MR0175 Standard Design

### Socket Weld Ends

Allows for Welding In Line Without Damaging Seats.



### Industry Standards

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

End Dimension (Threaded End) • ASME B2.1  
 Pressure Test • API 598  
 Design Std. • API 608, ASME B16.34, NACE MR0175  
 Fire Test • API 607 5<sup>th</sup> Edition

### Manufacturer of Quality Valve Products Around the Globe

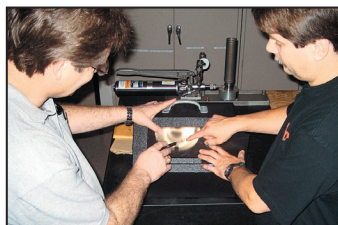
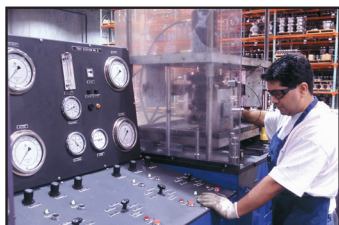
At Forum™ Energy Technologies we are committed to improving our clients' operational and financial performance by supplying the most comprehensive range of valve products in the industry through our family of trusted valve brands.

### Quality Control

All FET Valve Brands 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.

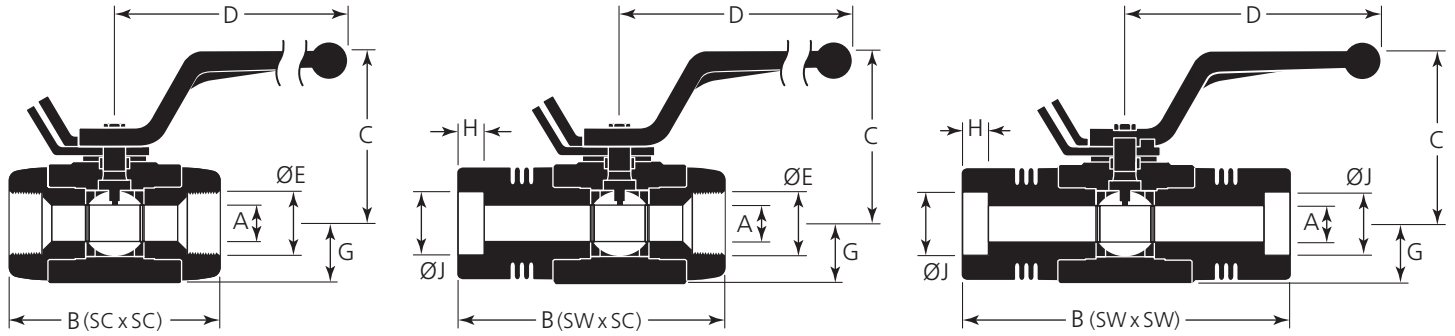
### Customer Service

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



# PBV® Series P134/P234/P334, 2000 - 6000 WOG

## Dimensional Data



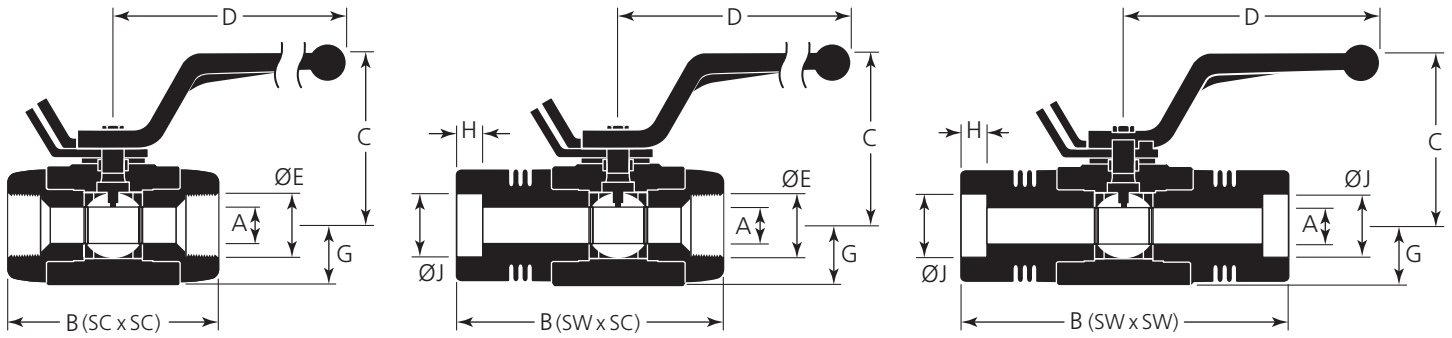
### Series P134/P234/P334, SC x SC, SW x SC & SW x SW, Reduced Port (in., mm)

Item														Weight (lbs.)			
NPS	Size (in.)	Press. (WOG)	A	B			C			D	ØE NPT	G	ØJ	H	SC x SC	SW x SC	SW x SW
				SC x SC	SW x SC	SW x SW	SC x SC	SW x SC	SW x SW								
DN20	¾	2000	0.50	3.98	4.49	5.00	3.43	3.29	3.29	5.71	¾	0.85	1.07	0.51	2.98	4.41	5.07
		3000		4.37	4.69	5.00	3.43	3.29	3.29						3.42	4.63	5.07
		4000		4.37	4.69	5.00	3.43	3.29	3.29						3.42	4.63	5.07
DN25	1	2000	0.75	4.33	5.53	6.73	4.17	3.57	3.57	5.71	1	1.20	1.33	0.51	5.16	7.27	7.93
		3000		5.24	5.98	6.73	4.17	3.57	3.57						6.04	7.71	7.93
		4000		5.24	5.98	6.73	4.17	3.57	3.57						6.04	7.71	7.93
DN32	1 ¼	ALL	1.00	5.98	6.89	7.36	3.91	3.91	3.91	6.77	1 ¼	1.46	1.68	0.51	12.12	13.66	14.33
DN40	1 ½	ALL	1.00	5.98	6.89	7.36	3.91	3.91	3.91	6.77	1 ½	1.46	1.68	0.51	11.90	13.44	13.89
DN50	2	2000	1.50	6.26	7.40	8.54	5.84	5.84	5.84	10.83	2	1.99	2.41	0.63	20.50	22.48	23.14
		3000		7.24	7.93	8.54	5.84	5.84	5.84						23.58	24.02	23.14
		4000		7.24	7.93	8.54	5.84	5.84	5.84						23.58	24.02	23.14
DN50	2	6000	1.50	7.24	7.93	8.54	5.84	5.84	5.84	10.83	2	1.99	2.41	0.63	23.58	24.02	23.14
DN80	3	ALL	2.00	9.69	10.28	10.55	7.44	7.44	7.44	11.89	3	2.52	3.54	0.63	48.49	48.93	59.95

Item														Weight (kg)			
NPS	Size (in.)	Press. (WOG)	A	B			C			D	ØE NPT	G	ØJ	H	SC x SC	SW x SC	SW x SW
				SC x SC	SW x SC	SW x SW	SC x SC	SW x SC	SW x SW								
DN20	¾	2000	12.7	101	114.0	127	83.6	83.6	83.6	145	¾	21.5	27.2	13	1.35	2.0	2.3
		3000		111	119.0	127	83.6	83.6	83.6						1.55	2.1	2.3
		4000		111	119.0	127	83.6	83.6	83.6						1.55	2.1	2.3
DN25	1	2000	19.0	110	140.5	171	90.8	90.8	90.8	145	1	30.5	33.9	13	2.34	3.3	3.6
		3000		133	152.0	171	90.8	90.8	90.8						2.74	3.5	3.6
		4000		133	152.0	171	90.8	90.8	90.8						2.74	3.5	3.6
DN32	1 ¼	ALL	25.4	163	175.0	187	99.3	99.3	99.3	172	1 ¼	37.0	42.7	13	5.50	6.2	6.5
DN40	1 ½	ALL	25.4	163	175.0	187	99.3	99.3	99.3	172	1 ½	37.0	42.7	13	5.40	6.1	6.3
DN50	2	2000	38.1	159	188.0	217	148.3	148.3	148.3	275	2	50.5	61.2	16	9.30	10.2	10.5
		3000		184	201.5	217	148.3	148.3	148.3						10.70	10.9	10.5
		4000		184	201.5	217	148.3	148.3	148.3						10.70	10.9	10.5
DN50	2	6000	38.1	184	201.5	217	148.3	148.3	148.3	275	2	50.5	61.2	16	10.70	10.9	10.5
DN80	3	ALL	50.8	254	261.0	268	189.0	189.0	189.0	302	3	64.0	90.0	16	22.00	22.2	27.2

# PBV® Series P135/P235/P335, 2000 - 6000 WOG

## Dimensional Data & Break Torques



### Series P135/P235/P335, SCx SC, SWx SC & SWx SW, Full Port (in., mm)

Item			Dimension (in.)											Weight (lbs.)			
NPS	Size (in.)	Press. (WOG)	A	B			C			D	ØE NPT	G	ØJ	H	SC x SC	SW x SC	SW x SW
				SC x SC	SW x SC	SW x SW	SC x SC	SW x SC	SW x SW								
DN15	1/2	ALL	0.50	3.98	4.49	5.00	3.43	3.29	3.29	5.71	1/2	0.85	0.86	0.39	3.09	3.53	3.75
DN20	3/4	ALL	0.75	4.33	5.55	6.73	4.17	3.57	3.57	5.71	3/4	1.20	1.07	0.51	5.73	5.73	6.17
DN25	1	ALL	1.00	5.98	6.06	6.73	3.91	3.91	3.91	6.77	1	1.46	1.33	0.51	9.92	9.70	10.36
DN32	1 1/4	ALL	1.50	6.26	7.44	8.54	5.84	5.84	5.84	10.83	1 1/4	1.99	1.68	0.51	21.89	24.24	25.13
DN40	1 1/2	ALL	1.50	6.26	7.44	8.54	5.84	5.84	5.84	10.83	1 1/2	1.99	1.92	0.51	21.64	24.02	24.68
DN50	2	ALL	2.00	9.69	8.07	9.88	7.44	7.44	7.44	11.89	2	2.52	2.41	0.63	37.91	40.77	46.95

Item			Dimension (mm)											Weight (kg)			
NPS	Size (in.)	Press. (WOG)	A	B			C			D	ØE NPT	G	ØJ	H	SC x SC	SW x SC	SW x SW
				SC x SC	SW x SC	SW x SW	SC x SC	SW x SC	SW x SW								
DN15	1/2	ALL	12.7	101	114	127	83.6	83.6	83.6	145	1/2	21.5	21.8	10	1.40	1.6	1.7
DN20	3/4	ALL	19.0	110	141	171	90.8	90.8	90.8	145	3/4	30.5	27.2	13	2.60	2.6	2.8
DN25	1	ALL	25.4	137	154	171	99.3	99.3	99.3	172	1	37.0	33.9	13	4.50	4.4	4.7
DN32	1 1/4	ALL	38.1	159	189	217	148.3	148.3	148.3	275	1 1/4	50.5	42.7	13	9.93	11.0	11.4
DN40	1 1/2	ALL	38.1	159	189	217	148.3	148.3	148.3	275	1 1/2	50.5	48.8	13	9.82	10.9	11.2
DN50	2	ALL	50.8	159	205	251	189.0	189.0	189.0	302	2	64.0	61.2	16	17.20	18.5	21.3

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

#### Series P134/P234/P334, Delrin® Seats

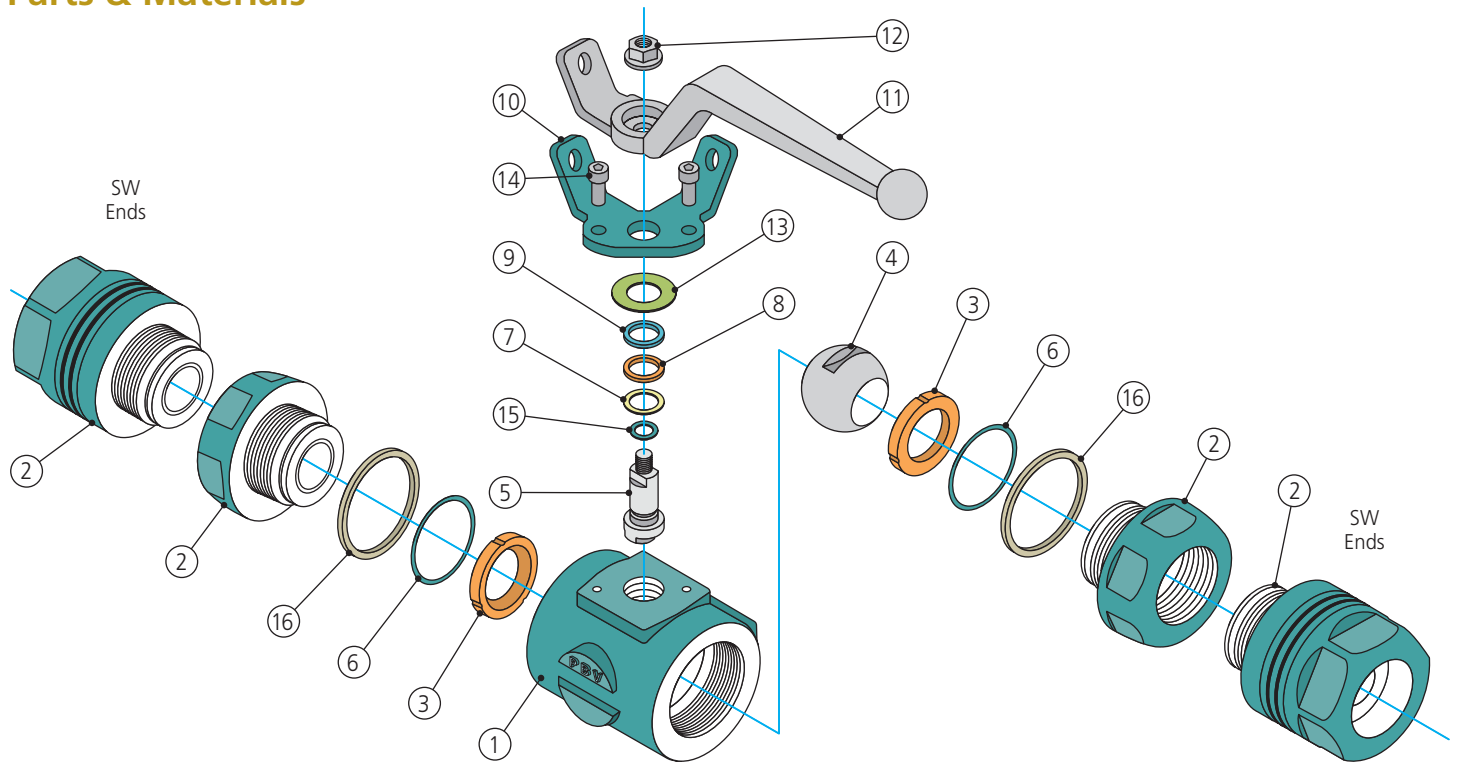
Item		Pressure (psi)			
NPS	Size (in.)	0	2000	3000	4000
DN20	3/4	68	129	124	120
DN25	1	198	146	150	135
DN32	1 1/4	330	245	239	261
DN40	1 1/2	330	245	239	261
DN50	2	644	534	554	584
DN80	3	660	630	691	716

#### Series P135/P235/P335, Delrin® Seats

Item		Pressure (psi)			
NPS	Size (in.)	0	2000	3000	4000
DN15	1/2	68	129	124	120
DN20	3/4	198	146	150	135
DN25	1	330	245	239	261
DN32	1 1/4	644	534	554	584
DN40	1 1/2	644	534	554	584
DN50	2	660	630	691	716

# PBV® Series P134/P234/P334 and Series P135/P235/P335

## Parts & Materials



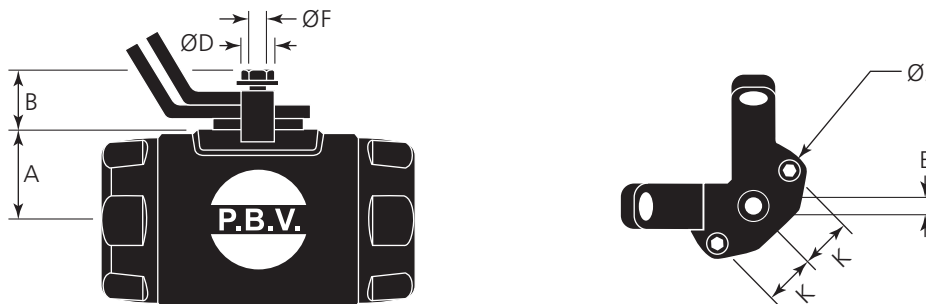
### Parts & Materials

No.	Description	Pressure Class Available	Material		
			P134/135	P234/235	P334/335
1	Body	Up to 3000	A105	CF8M	LF2
		ALL	A105	—	LF2
2	End Caps	ALL	A105	CF8M	LF2
3	Seats	2000	TFM 4215	TFM 4215	TFM 4215
		3000/4000	Delrin®	Delrin®	Delrin®
		6000	PEEK™ + 15% C.F.	—	PEEK™ + 15% C.F.
4	Ball	2000	CF8M	CF8M	CF8M
		3000/4000			
		6000	17-4PH	—	17-4PH
5	Stem	2000/3000	17-4PH	17-4PH	17-4PH
		4000/6000			
6	Body O-Ring	ALL	HSN (HNBR)	HSN (HNBR)	HSN (HNBR)
7	Thrust Washer	2000	PTFE + 15% G.F.	PTFE + 15% G.F.	PTFE + 15% G.F.
		3000/4000	Delrin®	Delrin®	Delrin®
		6000	PEEK™ + 15% C.F.	—	PEEK™ + 15% C.F.
8	Packing	ALL	PTFE + 15% G.F.	PTFE + 15% G.F.	PTFE + 15% G.F.
		6000	Graphite	—	Graphite
9	Packing Follower	ALL	304	304	304
10	Gland Flange	ALL	CS Plated	CS Plated	CS Plated
11	Handle	ALL	CS Plated	CS Plated	CS Plated
12	Self Locking Nut	ALL	CS Plated	CS Plated	CS Plated
13	Belleville Washer	ALL	Stainless Steel	Stainless Steel	Stainless Steel
14	Stop Screw	ALL	Stainless Steel	Stainless Steel	Stainless Steel
15	Stem O-Ring	ALL	HSN (HNBR)	HSN (HNBR)	HSN (HNBR)
16	Body Gasket	ALL	Graphite	Graphite	Graphite

**Note:** We reserve the right to change materials and specifications. Item 8 & 15: Firesafe Design

# PBV® Series P134/P234/P334 & Series P135/P235/P335

## Topworks & Flow Coefficients (C<sub>v</sub>)



### Series P134/P234/P334, Reduced Port (in.,mm)

Item		Dimension (in.)						
NPS	Size (in.)	A	B	ØD	E	ØF	ØJ	K
DN20	¾	1.06	0.73	0.45	0.27	1/4-20 UNC	0.31	0.71
DN25	1	1.26	0.81	0.45	0.27	1/4-20 UNC	0.31	0.71
DN32	1¼	1.57	0.94	0.56	0.33	5/16-18 UNC	0.39	0.83
DN40	1½	1.57	0.94	0.56	0.33	5/16-18 UNC	0.39	0.83
DN50	2	2.31	1.36	0.75	0.45	7/16-14 UNC	0.46	1.05
DN80	3	3.00	1.82	1.00	0.63	5/8-11 UNC	0.56	1.25
Item		Dimension (mm)						
DN20	¾	26.80	18.60	11.4	6.8	1/4-20 UNC	7.80	18.0
DN25	1	31.95	20.60	11.4	6.8	1/4-20 UNC	7.80	18.0
DN32	1¼	39.80	24.00	14.3	8.5	5/16-18 UNC	9.80	21.0
DN40	1½	39.80	24.00	14.3	8.5	5/16-18 UNC	9.80	21.0
DN50	2	58.65	34.65	19.1	11.4	7/16-14 UNC	11.65	26.6
DN80	3	76.20	46.30	25.4	16.0	5/8-11 UNC	14.10	31.8

### Series P135/P235/P335, Full Port (in.,mm)

Item		Dimension (in.)						
NPS	Size (in.)	A	B	ØD	E	ØF	ØJ	K
DN15	½	1.06	0.73	0.45	0.27	1/4-20 UNC	0.31	0.71
DN20	¾	1.26	0.81	0.45	0.27	1/4-20 UNC	0.31	0.71
DN25	1	1.57	0.94	0.56	0.33	5/16-18 UNC	0.38	0.83
DN32	1¼	2.31	1.36	0.75	0.45	7/16-14 UNC	0.46	1.05
DN40	1½	2.31	1.36	0.75	0.45	7/16-14 UNC	0.46	1.05
DN50	2	3.00	1.82	1.00	0.63	5/8-11 UNC	0.56	1.25
Item		Dimension (mm)						
DN15	½	26.80	18.60	11.4	6.8	1/4-20 UNC	7.80	18.0
DN20	¾	31.95	20.60	11.4	6.8	1/4-20 UNC	7.80	18.0
DN25	1	39.80	24.00	14.3	8.5	5/16-18 UNC	9.80	21.0
DN32	1¼	58.65	34.65	19.1	11.4	7/16-14 UNC	11.65	26.6
DN40	1½	58.65	34.65	19.1	11.4	7/16-14 UNC	11.65	26.6
DN50	2	76.20	46.30	25.4	16.0	5/8-11 UNC	14.10	31.8

### Flow Coefficients (C<sub>v</sub>)

#### Series P134/P234/P334, Reduced Port & Series P135/P235/P335, Full Port

Series/End Connection	Size (in.)/Flow Coefficients (C <sub>v</sub> )						
	½	¾	1	1¼	1½	2	3
P134/234/334: SC x SC	—	9	25	50	38	100	350
SW x SC/SC x SC	—	12	32	67	49	130	420
P135/235/335: All	26	50	110	170	260	480	—

Our goal is to become the leading provider of mission critical oilfield products and related services in terms of customer satisfaction, safety and financial performance.

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.

**For more information about our products and full Terms & Conditions please visit [www.f-e-t.com](http://www.f-e-t.com).**



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