

PBV® FORGED OILPATCH

FLOATING BALL VALVES

+1 281 637 2000

f-e-t.com/PVB

ForumVS.PVB@f-e-t.com



Contents

PBV® Forged Oilpatch Floating Ball Valves

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

How to Order and Pressure Temperature Ratings.....	2
Design Features, Industry Standards, and Quality Commitment.....	3
Dimensional Data and Break Torques.....	4-5
Parts, Materials, Topworks, and Flow Coefficients (C _v).....	6-7

PBV Forged Oilpatch Floating Ball Valves

How to Order and Pressure Temperature Ratings

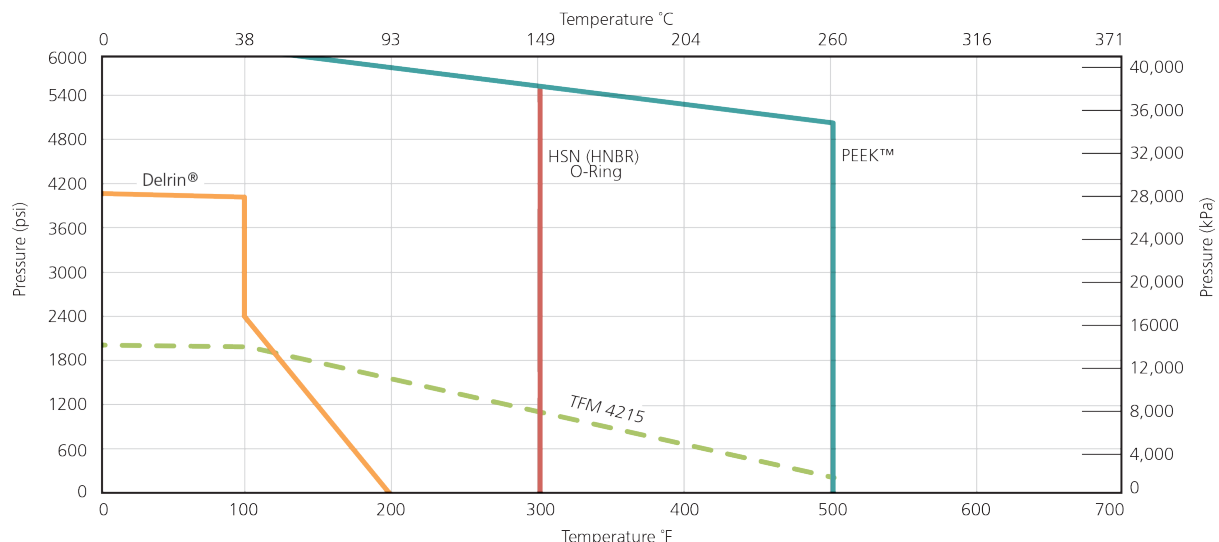
Specifying Series P134 / P234 / P334 and P135 / P235 / P335

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.

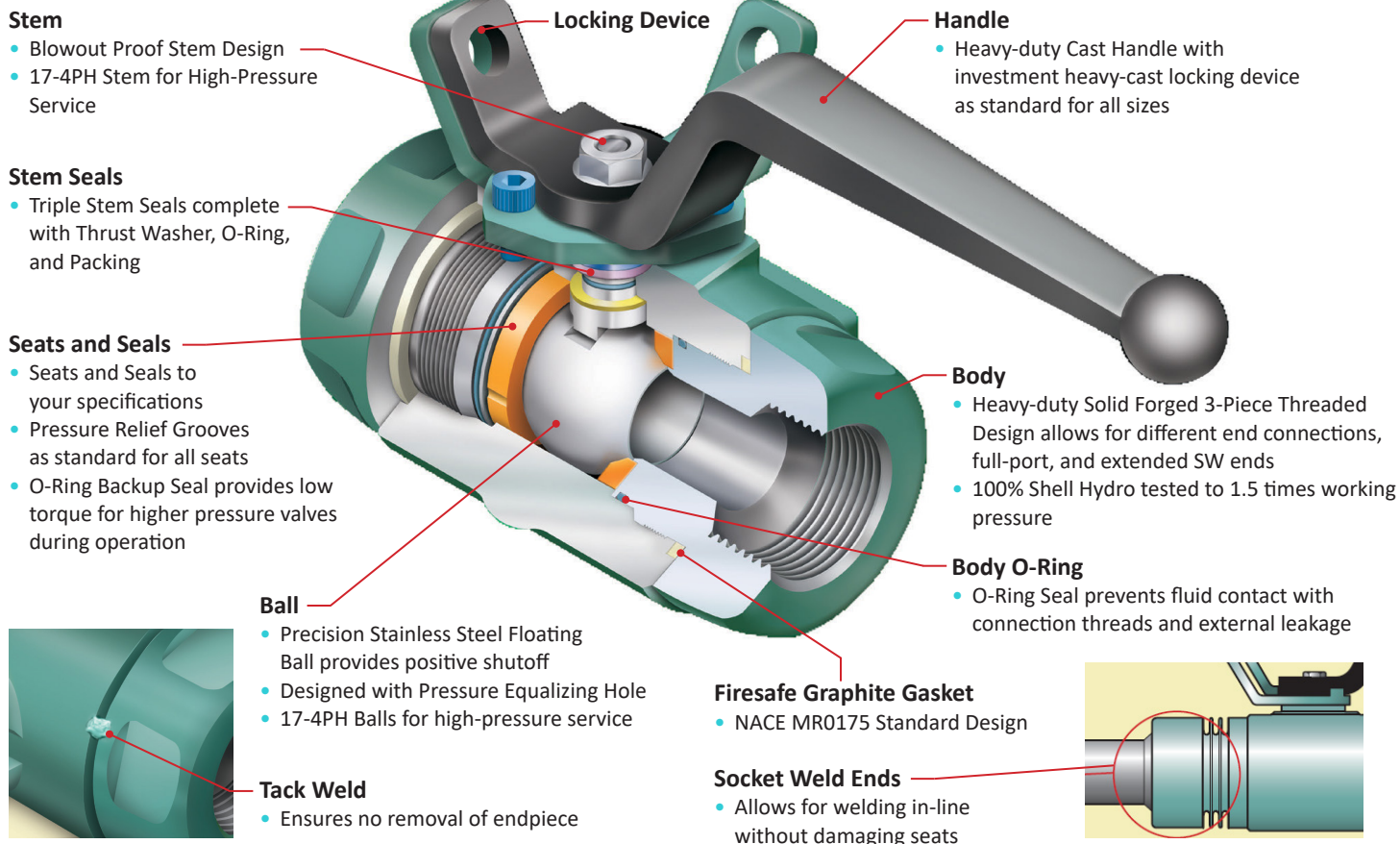
P	1	3	4	-	3	R	H	-	SC
Series	Material	Design	Port		Pressure	Seats	Stem Seal		End Connection
P Oilpatch	1 A105	3 3-Piece Body	4 Reduced Port		2 2000 WOG	R Delrin®	H HSN (HNBR)		SM Male x Female Threaded End
	2 CF8M		5 Full Port		3 3000 WOG	P PEEK™	L Graphite		SC Threaded End NPT
	3 LF2				4 4000 WOG	C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



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.

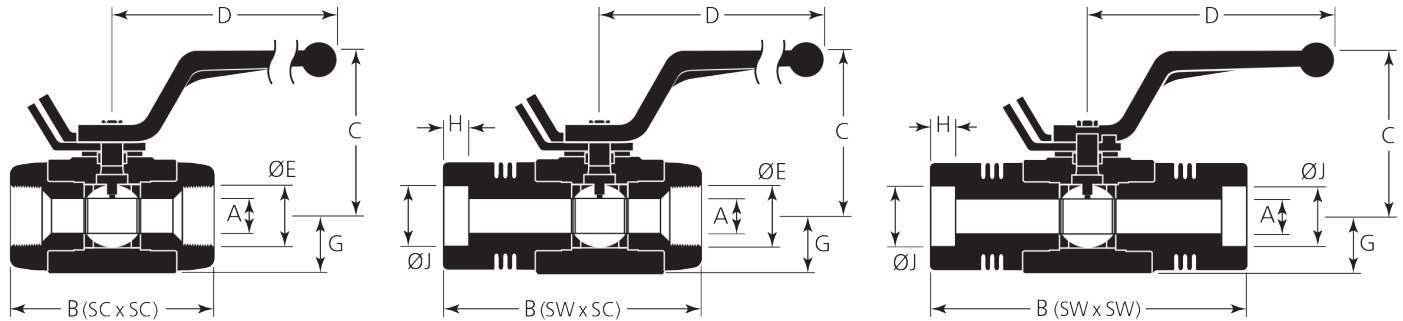
Customer Service

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



PBV® SERIES P134/P234/P334, 2000-6000 WOG

Dimensional Data



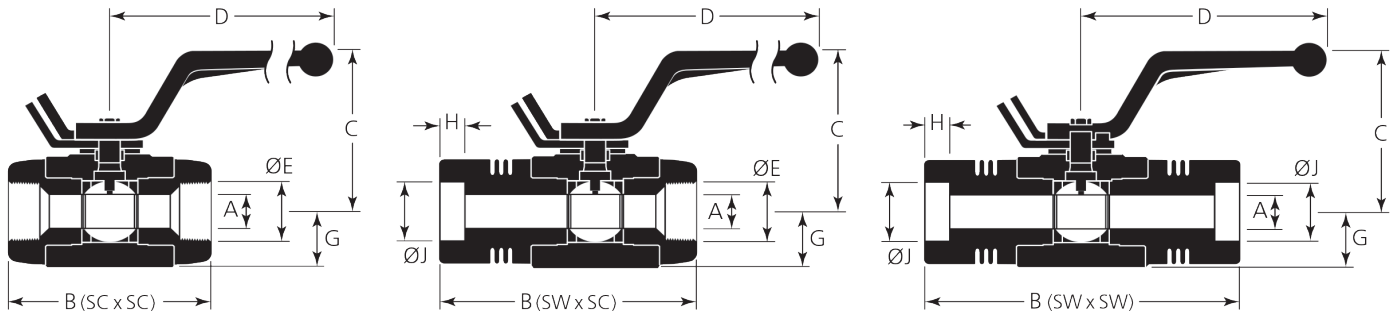
Series P134/P234/P334, SCxSC, SWxSC & SWxSW, Reduced Port (in., mm)

Item			A	B			C			D	Ø E NPT	G	ØJ	H	Weight (lbs.)		
NPS	Size (in.)	Press. (WOG)		SCxSC	SWxSC	SWxSW	SCxSC	SWxSC	SWxSW						SC x SC	SW x SC	SW x SW
DN20	3/4	2000 3000 4000	0.50	3.98	4.49	5.00	3.43	3.29	3.29	5.71	3/4	0.85	1.07	0.51	2.98	4.41	5.07
DN20	3/4	6000	0.50	4.37	4.69	5.00	3.43	3.29	3.29	5.71	3/4	0.85	1.07	0.51	3.42	4.63	5.07
DN25	1	2000 3000 4000	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
DN25	1	6000	0.75	5.24	5.98	6.73	4.17	3.57	3.57	5.71	1	1.20	1.33	0.51	6.04	7.71	7.93
DN32	1 1/4	ALL	1.00	5.98	6.89	7.36	3.91	3.91	3.91	6.77	1 1/4	1.46	1.68	0.51	12.12	13.66	14.33
DN40	1 1/2	ALL	1.00	5.98	6.89	7.36	3.91	3.91	3.91	6.77	1 1/2	1.46	1.68	0.51	11.90	13.44	13.89
DN50	2	2000 3000 4000	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
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			A	B			C			D	Ø E NPT	G	ØJ	H	Weight (kg)		
NPS	Size (in.)	Press. (WOG)		SCxSC	SWxSC	SWxSW	SCxSC	SWxSC	SWxSW						SC x SC	SW x SC	SW x SW
DN20	3/4	2000 3000 4000	12.7	101	114	127	83.6	83.6	83.6	145	3/4	21.5	27.2	13	1.35	2.0	2.3
DN20	3/4	6000	12.7	111	119	127	83.6	83.6	83.6	145	3/4	21.5	27.2	13	1.55	2.1	2.3
DN25	1	2000 3000 4000	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
DN25	1	6000	19.0	133	152	171	90.8	90.8	90.8	145	1	30.5	33.9	13	2.74	3.5	3.6
DN32	1 1/4	ALL	25.4	163	175	187	99.3	99.3	99.3	172	1 1/4	37	42.7	13	5.50	6.2	6.5
DN40	1 1/2	ALL	25.4	163	175	187	99.3	99.3	99.3	172	1 1/2	37	42.7	13	5.40	6.1	6.3
DN50	2	2000 3000 4000	38.1	159	188	217	148.3	148.3	148.3	275	2	50.5	61.2	16	9.30	10.2	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	268	189	189	189	302	3	64	90	16	22	22.2	27.2

PBV® SERIES P135/P235/P335, 2000-6000 WOG

Dimensional Data & Break Torques



Series P135/P235/P335, SCxSC, SWxSC & SWxSW, Full Port (in., mm)

Item			Dimension (in.)												Weight (lbs.)		
NPS	Size (in.)	Press. (WOG)	A	B			C			D	Ø E NPT	G	ØJ	H	SC x SC	SW x SC	SW x SW
				SCxSC	SWxSC	SWxSW	SCxSC	SWxSC	SWxSW								
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	11/4	ALL	1.50	6.26	7.44	8.54	5.84	5.84	5.84	10.83	11/4	1.99	1.68	0.51	21.89	24.24	25.13
DN40	11/2	ALL	1.50	6.26	7.44	8.54	5.84	5.84	5.84	10.83	11/2	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 (in.)											Weight (kg)			
NPS	Size (in.)	Press. (WOG)	A	B			C			D	Ø E NPT	G	ØJ	H	SC x SC	SW x SC	SW x SW
				SCxSC	SWxSC	SWxSW	SCxSC	SWxSC	SWxSW								
DN15	1/2	ALL	12.7	101	114	127	83.6	83.6	83.6	145	1/2	21.5	21.8	10	1.4	1.6	1.7
DN20	3/4	ALL	19	110	141	171	90.8	90.8	90.8	145	3/4	30.5	27.2	13	2.6	2.6	2.8
DN25	1	ALL	25.4	137	154	171	99.3	99.3	99.3	172	1	37	33.9	13	4.5	4.4	4.7
DN32	11/4	ALL	38.1	159	189	217	148.3	148.3	148.3	275	11/4	50.5	42.7	13	9.93	11	11.4
DN40	11/2	ALL	38.1	159	189	217	148.3	148.3	148.3	275	11/2	50.5	48.8	13	9.82	10.9	11.2
DN50	2	ALL	50.8	159	205	251	189	189	189	302	2	64.0	61.2	16	17.20	18.5	21.3

Break Torques (in.-lbs.)

Series P134/P234/P334, Delrin® Seats

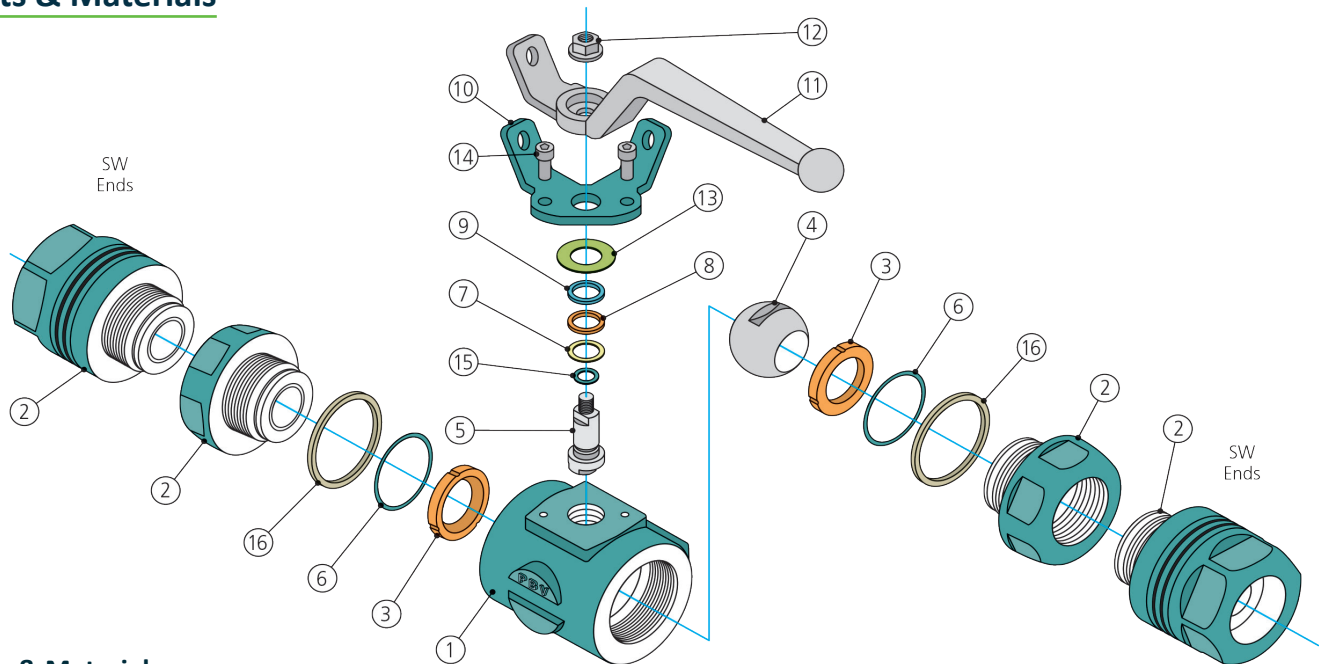
Item		Pressure (psi)			
NPS	Size (in.)	0	2000	3000	4000
DN20	3/4	68	129	124	120
DN25	1	198	146	150	135
DN32	1 1/4	330	245	239	261
DN40	1 1/2	330	245	239	261
DN50	2	644	534	554	584
DN80	3	660	630	691	716

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



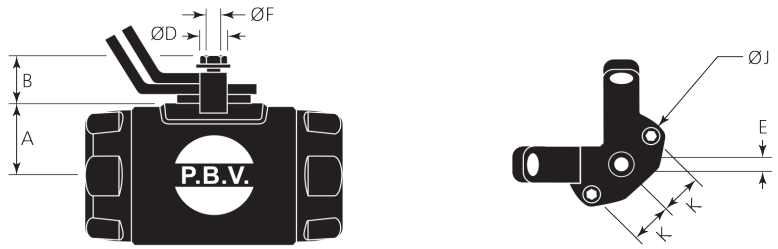
Parts & Materials

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 (Cv)



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

Item		Dimension (in.)						
NPS	Size (in.)	A	B	ØD	E	ØF	ØJ	K
DN20	3/4	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	1 1/4	1.57	0.94	0.56	0.33	5/16-18 UNC	0.39	0.83
DN40	1 1/2	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	3/4	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	1 1/4	39.80	24.00	14.3	8.5	5/16-18 UNC	9.80	21.0
DN40	1 1/2	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	1/2	1.06	0.73	0.45	0.27	1/4-20 UNC	0.31	0.71
DN20	3/4	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	1 1/4	2.31	1.36	0.75	0.45	7/16-14 UNC	0.46	1.05
DN40	1 1/2	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
		Dimension (mm)						
DN15	1/2	26.80	18.60	11.4	6.8	1/4-20 UNC	7.80	18.0
DN20	3/4	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	1 1/4	58.65	34.65	19.1	11.4	7/16-14 UNC	11.65	26.6
DN40	1 1/2	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 (Cv)

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

Series/End Connection	Size (in.)/Flow Coefficients (Cv)						
	1/2	3/4	1	1 1/4	1 1/2	2	3
P134/234/334: SCxSC	—	9	25	50	38	100	350
SWxSC/SCxSC	—	12	32	67	49	130	420
P135/235/335: All	26	50	110	170	260	480	—

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

The information provided in this brochure is intended for informational purposes only. While we strive to maintain accuracy, please know that the content may change without prior notification. We do not guarantee the information's completeness, timeliness, or reliability. Any reliance on the content is at your discretion, and we assume no responsibility for errors, omissions, or inaccuracies that may occur.

Copyright © FORUM ENERGY TECHNOLOGIES, INC. All rights reserved. • PBV is a registered trademark of Forum US, Inc. • Delrin® is a registered Trademark of Dupont • PEEK™ is a Trademark of Victrex Plc.

PBV_FRGD_OP_FLTG_BV_0425