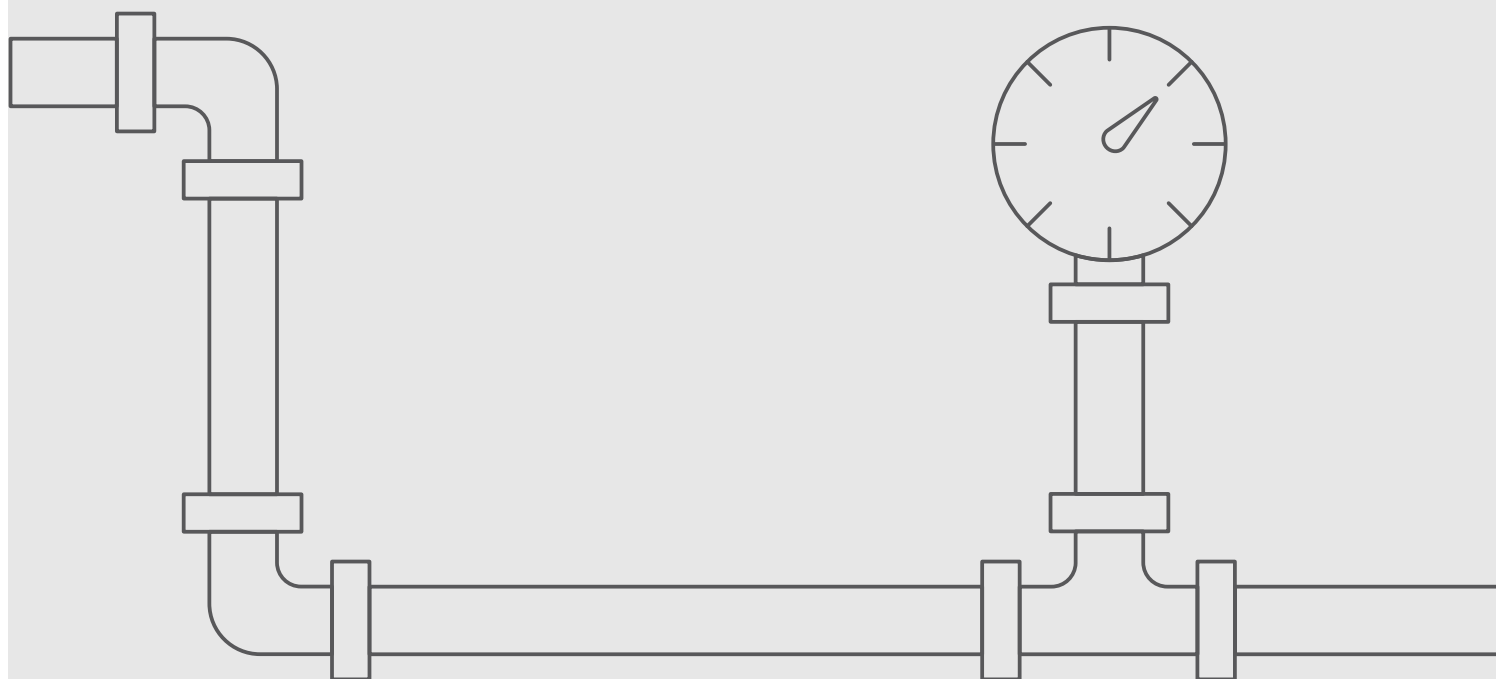




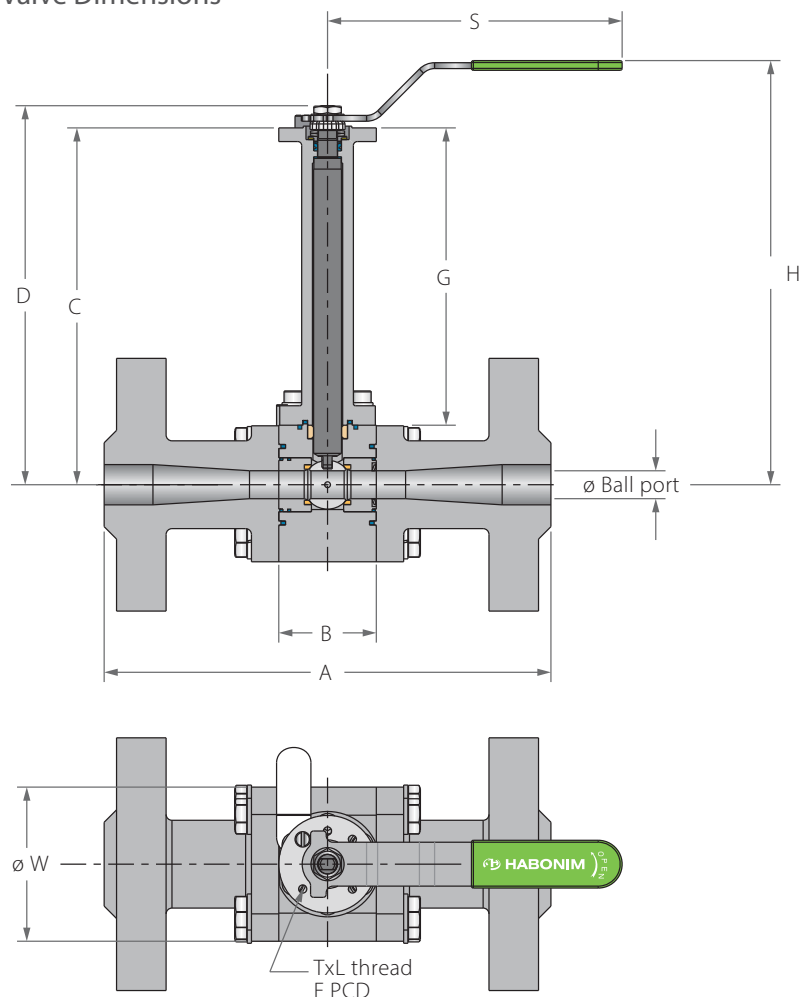
FLOATING BALL

HIGH PRESSURE
3 PIECE

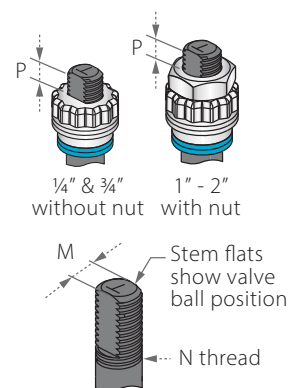


Cryogenic High Pressure Floating Ball 3 Piece

Valve Dimensions



Preparation for actuation

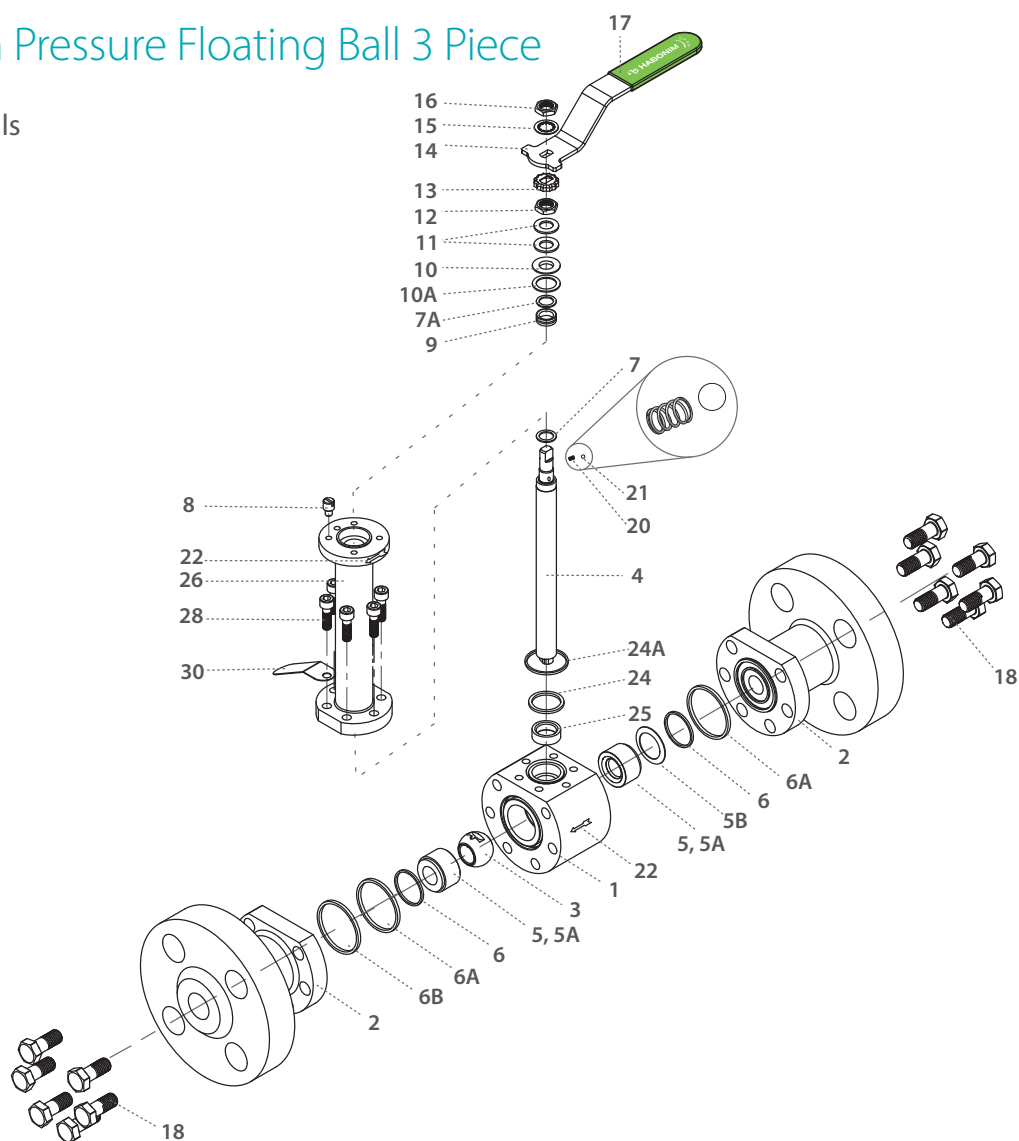


Std. port	Full port	Unit	Ball port	A				B	Standard design					6" bonnet				S	W	M	N	P	F	TxL	Kv Cv	Weight kg/lb
				Welded	Threaded	#1500	#2500		C	D	H	G	C	D	H	G										
DN15	DN8, DN10	mm	11.15	173.6	107.2	216.0	264.0	50.0	333.0	341.9	380.6	304	181.4	190.3	229	152.4	150.0	78.0	5.50	3/8"	7.2	F03	36.0	M5X8	6.9	3.9
1/2"	1/4", 3/8"	inch	0.44	6.83	4.22	8.50	10.39	1.97	13.11	13.46	14.98	11.97	7.14	7.49	9.02	6.0	5.91	3.07	0.22	UNF	0.28		1.42		8	8.6
DN20	DN15	mm	13.0	188.6	120.0	229.0	273.0	60.0	338.1	355.6	386.6	304.0	186.5	204.0	235.0	152.4	187	98.0	7.5	7/16"	7.2	F04	42	M5X7	10	6.8
3/4"	1/2"	inch	0.51	7.43	4.72	9.02	10.75	2.36	13.31	14.0	15.22	11.97	7.34	8.03	9.25	6.0	7.36	3.86	0.3	UNF	0.28		1.65		12	15
DN25	DN20	mm	20.65	208.6	144.2	254.0	308.0	68.0	347.75	377.25	401.6	304.0	196.15	225.65	250.0	152.4	237.0	114.0	8.65	9/16"	7.2	F05	50.0	M6X8	28	10.6
1"	3/4"	inch	0.81	8.21	5.68	10.0	12.13	2.68	13.69	14.85	15.81	11.97	7.72	8.88	9.84	6.0	9.33	4.49	0.34	UNF	0.28		1.97		32	23.3
DN32	DN25	mm	25.5	211.6	152.0	279.0	349.0	68.0	355.5	385.0	410.0	304.0	203.9	233.4	258.4	152.4	237.0	124.0	8.65	9/16"	8.0	F05	50.0	M6X8	49	12.5
1 1/4"	1"	inch	1.0	8.33	5.98	10.98	13.74	2.68	14.0	15.16	16.14	11.97	8.03	9.19	10.17	6.0	9.33	4.88	0.34	UNF	0.31		1.97		57	27.5



Cryogenic High Pressure Floating Ball 3 Piece

Components & Materials



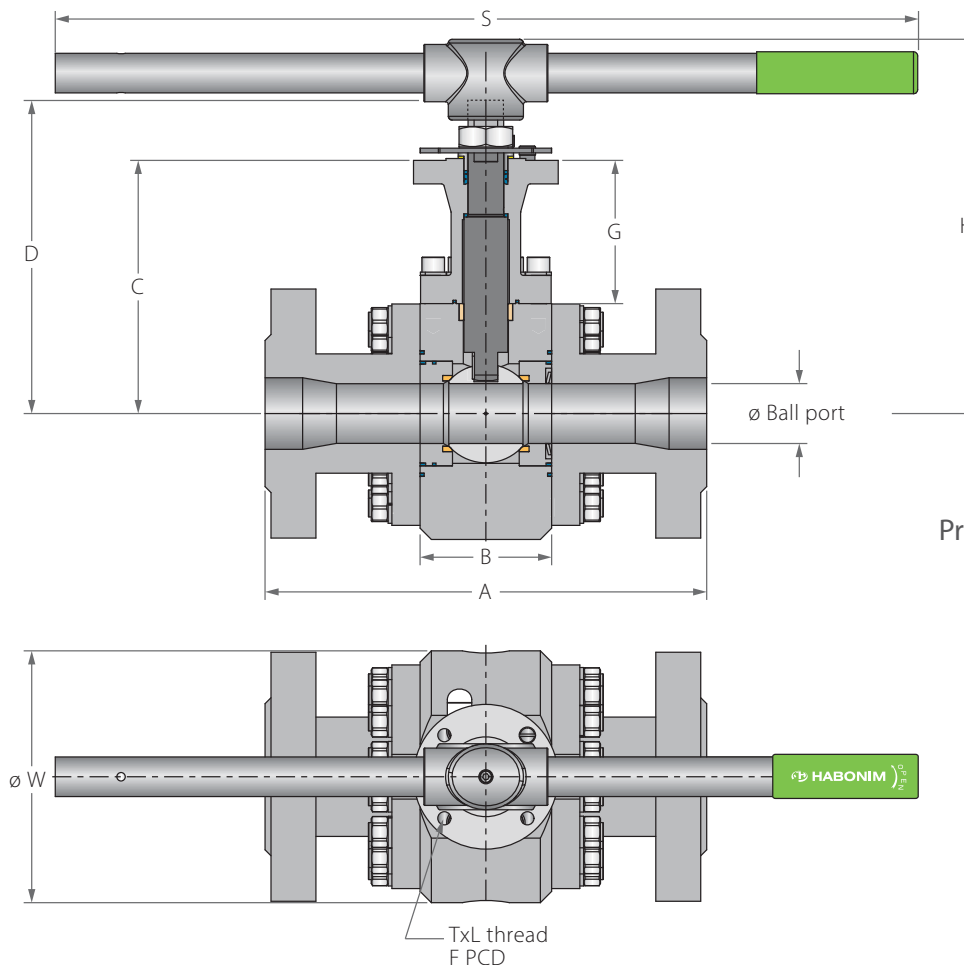
Item	Description	Material specifications	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	2
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	2
5A*	Seat Housing	S. Steel	2
5B	Upstream Seat Spring	Inconel 718	1
6*	Inner Seal	TFM	2
6A*	Outer Seal	Acc. Ordering Code	2
6B*	Graphite String	Graphite	1
7*	Stem Thrust Seal	PCTFE	1
7A*	Anti-Abrasion Ring	PCTFE	1
8	Stop Pin	S. Steel	1
9*	Stem Seal	TFM	1
10	Follower	S. Steel	1
10A*	Slide Bearing	S. Steel	1
11	Disc Spring	S. Steel	2
12	Stem Nut	S. Steel	2

Item	Description	Material specifications	Qty.
13	Locking Clip	S. Steel	1
14	Handle	S. Steel	1
15	Serrated Washer	S. Steel	1
16	Handle Nut	S. Steel	1
17	Sleeve	PVC	1
18	Body Bolt	S. Steel	8-16
20	Anti-Static Spring	S. Steel	2
21	Anti-Static Plunger	S. Steel	2
22	Arrow Flow	S. Steel	2
23	Tag (not shown)	S. Steel	1
24*	Bonnet Inner Seal	TFM	1
24A*	Bonnet Outer Seal	Acc. Ordering Code	1
25*	Stem Bearing	PTFE	1
26	Bonnet	S. Steel	1
28	Bolt	S. Steel	4-6
30	Dog Tag	S. Steel	1

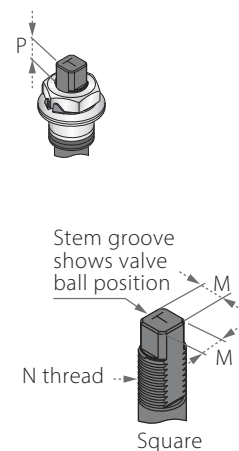
* Maintenance kit components

Cryogenic High Pressure Floating Ball 3 Piece

Valve Dimensions



Preparation for actuation



Std. port	Full port	Unit	Ball port	A				B	Standard design					6" bonnet				S	W	M	MDD	N	P	F	TxL	Kv Cv	Weight kg/lb
				Welded	Threaded	#1500	#2500		C	D	H	G	C	D	H	G											
DN40	DN32	mm	31.8	262.0	179.0	305.0	384.0	95.0	357.0	398.6	425.0	304.0	205.4	247.0	273.4	152.4	400.0	140.0	13.9	13.9	M20X2.5	8.0	F07	70.0	M8X7	69	21
1½"	1¼"	inch	1.25	10.31	7.05	12.01	15.12	3.74	14.06	15.69	16.73	11.97	8.09	9.72	10.76	6.0	15.75	5.51	0.55	0.55		0.31		2.76		80	46.2
DN50	DN40	mm	38.15	255.8	195.0	368.0	451.0	95.0	376.5	418.1	443.75	304.0	224.9	266.5	292.15	152.4	400.0	172.0	13.9	13.9	M20X2.5	15.75	F07	70.0	M8X10	102	30.8
2"	1½"	inch	1.5	10.07	7.68	14.49	17.76	3.74	14.82	16.46	17.47	11.97	8.85	10.49	11.5	6.0	15.75	6.77	0.55	0.55		0.62		2.76		118	67.8
DN65	DN50	mm	51.0	313.0	225.0	419.0	508.0	105.0	392.4	438.9	479.4	304.8	240.0	286.5	327.0	152.4	610.0	199.0	18.9	15.9	1"-14	16.7	F10	102.0	M10X15	208	43
2½"	2"	inch	2.01	12.32	8.86	16.5	20.0	4.13	15.45	17.28	18.87	12.0	9.45	11.28	12.87	6.0	24.02	7.83	0.74	0.63	UNS-2A	0.66		4.02		241	94.6
DN80	DN65	mm	63.75	343.2	-	470.0	578.0	140.0	421.0	490.1	-	304.0	269.4	338.5	-	152.4	-	268.0	28.45	23.75	1½" UNF-2A	26.2	F12	125.0	M16X25	300	94.7
3"	2½"	inch	2.51	13.51	-	18.5	22.76	5.51	16.57	19.3	-	11.97	10.61	13.33	-	6.0	-	10.55	1.12	0.94		1.03		4.92		348	208.4
DN100	DN80	mm	82.8	419.2	-	546.0	673.0	140.0	438.0	550.65	-	304.0	286.4	399.05	-	152.4	-	298.0	28.45	23.75	1½" UNF-2A	26.2	F12	125.0	M16X25	615	122.5
4"	3"	inch	3.26	16.5	-	21.5	26.5	5.51	17.24	21.68	-	11.97	11.28	15.71	-	6.0	-	11.73	1.12	0.94		1.03		4.92		713	269.5
DN150	DN100	mm	100.0	510.0	-	705.0	914.0	175.0	451.0	563.65	-	304.0	299.4	412.05	-	152.4	-	339.0	35.9	35.9	2" UNF-2A	40.0	F16	165.0	M20X25	872	266
6"	4"	inch	3.94	20.08	-	27.76	35.98	6.89	17.76	22.19	-	11.97	11.79	16.22	-	6.0	-	13.35	1.41	1.41		1.57		6.5		1012	585
DN200	DN150	mm	144.4	680.0	-	832.0	1022.0	210.0	496.0	637.0	-	304.0	344.4	485.4	-	152.4	-	423.0	45.9	45.9	2¾" UN-2A	40.0	F16	165.0	M20X25	1552	509
8"	6"	inch	5.69	26.77	-	32.76	40.24	8.27	19.53	25.08	-	11.97	13.56	19.11	-	6.0	-	16.65	1.81	1.81		1.57		6.5		1800	1120

Parts & Materials

This exploded view diagram illustrates the assembly of a mechanical component. The parts are numbered as follows:

- 1: Main housing or base
- 2: Flange or mounting plate
- 3: Seal or gasket
- 4: Pin or shaft
- 5, 5A: Washers or spacers
- 6, 6A, 6B: O-rings or seals
- 7: Spring
- 8: Small cylindrical component
- 9: Small ring or washer
- 10, 10A: Washers or spacers
- 12, 13: Small rings or washers
- 14, 14A, 14B: Pin or shaft
- 16: Small pin or screw
- 17: Green handle or lever
- 18: Ring of fasteners or pins
- 19: Ring of fasteners or pins
- 20, 21: Small pins or screws
- 22: Small ring or washer
- 24, 24A: Washers or spacers
- 25: Small ring or washer
- 26, 28, 28A, 30: Small components, possibly screws or pins

Item	Description	Material specifications	Qty.
14A	Stop Plate	S. Steel	1
14B	Wrench Head	S. Steel	1
16	Wrench Bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body Bolt	S. Steel	8-16
18A	Spring Washer	S. Steel	8-16
19	Body Bolt	S. Steel	8-16
20	Anti-Static Spring	S. Steel	2
21	Anti-Static Plunger	S. Steel	2
22	Arrow Flow	S. Steel	2
23	Tag (not shown)	S. Steel	1
24*	Bonnet Inner Seal	Graphite, TFM	1
24A*	Bonnet Outer Seal	Acc. Ordering Code	1
25*	Stem Bearing	PTFE	1
26	Bonnet	S. Steel	1
28	Bolt	S. Steel	6-8
30	Dog Tag	S. Steel	1

** Gear operator should be used for size 3" DN80 (handle components are not included)



Cryogenic High Pressure Floating Ball 3 Piece - Ordering Code System

"Mandatory option" options are marked with **green background** | "Standard offer" options are marked with **light green background**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	.	.	30
4	0			F	C	2	8	W	-	6	6	6	M	F	A	G	/	X	B	W	80	-	C	0	0	5
Size		Features				Series		Design		Body/End material		Ball/Stem material		Seat material	Inner Seal	Outer Seal	End connection				Special features					

Size (1-2)		
Code	inch	mm
02	¼"	8
03	¾"	10
05	½"	15
07	¾"	20
10	1"	25
12	1¼"	32
15	1½"	40
20	2"	50
25	2½"	65
30	3"	80
40	4"	100
60	6"	150
80	8"	200
Features (3-6)		
C	Cryogenic	
F	Fire safe	
B	Full port	
N	Control	

Series (7-8)	
28	HP Float 3 piece.
Design (9)	
W	Total HermetiX Integrity package
Body material (11)	
6	S. Steel 316/316L
End material (12)	
6	S. Steel 316/316L
Ball material (13) ¼"-¾"	
M	High Strength S. Steel
Ball material (13) 1" and up	
6	S. Steel 316/316L
M	High Strength S. Steel
Stem material (14)	
M	High Strength S. Steel

Seat material (15)	
F	Hybrid Seat (info in special features)
Inner Seal Material (16)	
A	TFM
G	Expanded graphite
Outer Seal Material (17)	
G	Expanded graphite
A	TFM

End connections (19-22)	
Welded	
XBW80	Extended butt weld schd. 80
XBW160*	Extended butt weld schd. 160
XBWXXS	Extended butt weld schd. XXS
XSW	Extended socket weld
* Std. port only	
Threaded	
NPT	ASME B1.20.1 - National Pipe Taper thread
BSPT	EN 10226-2 - British Standard Pipe Taper thread
BSPP	ISO228-1, DIN3852 - Pipe parallel thread
DIN3852	DIN3852 EN 10226-1 - Pipe parallel thread
AS5202	SAE internal straight thread
Flanged	
600	ASME B16.5 #600 RF
900	ASME B16.5 #900 RF
1500	ASME B16.5 #1500 RF
2500	ASME B16.5 #2500 RF
PN100	EN1092 PN100 RF
PN160	EN1092 PN160 RF
PN250	EN 1092-1 PN250 RF
PN400	EN 1092-1 PN400 RF
Flanged RTJ	
600RTJ	ASME B16.5 #600 RTJ
900RTJ	ASME B16.5 #900 RTJ
1500RTJ	ASME B16.5 #1500 RTJ
2500RTJ	ASME B16.5 #2500 RTJ
Clamp	
GR*	Grayloc® compatible hub (Grayloc® is a registered trademark of Grayloc Products, L.L.C.)

Hybrid Seats (24-27)

24	25-26	27
Insert material	Seat Configuration	Seal Type
C	PCTFE	00
	Unidirectional Spring-Loaded Hybrid Seats	5
		6
		Seal 1: TFM; Seal 2: Expanded graphite
		Seal 1: TFM

Special Features (24-30)	
Vxx	V port
VBxx	Characterized control ball
6.0	Short bonnet

* Not available for 1¼" (DN32) Valves