



HIGH PRESSURE VALVES

General	108
Trunnion	
3 Piece	111
Floating Ball	
3 Piece	117



HIGH PRESSURE VALVES

General



Habonim's High Pressure product line valves are subject to the general Habonim valves design, materials, practices, methodologies and certifications – for more information, see Valves General chapter.



Habonim High Pressure valves are equipped with the Total HermetiX integrity package for superior sealing, safety and environmental care.

High Pressure Valves

Performing within high pressure systems is a significant part of our daily commitment over the last two decades. We design, manufacture and support our high-pressure ball valves and control packages that are specially built for safety, endurance and reliability to cover for gases and fluids control up to Class 2500 pressures rating and beyond.

Our customers trust allows us to offer a comprehensive standard catalogue product line alongside flexible tailor-made product offered to the most demanding applications.

Features

Materials

- Forged or rolled bars, sourced and stocked only from high quality mills.

Robust design

- High Δp (differential pressure)
- Up to 414bar (6,000psi) full Δp class 2500 depend on series and size.
- Series 28:
 - pressure containing parts are in compliance with ASME B16.34, for wall thickness.
 - A one-size-up stem made of high tensile material complies with ASME B16.34 and API 6D for drive train requirements provides sufficient safety factor during operation.

Hybrid seat design

- A special hybrid seat design provides a higher metal seat stiffness and bubble tight shut-off (Rate A) combined with lower operating torque compared to equivalent similar valve solutions.

Pressure tested

- Designs are burst-proof tested for 4 times the maximal working pressure.

Reference standards

- Designed and tested per EN 14432:2014
- Type test certified by DNV-GL (for part of the series)



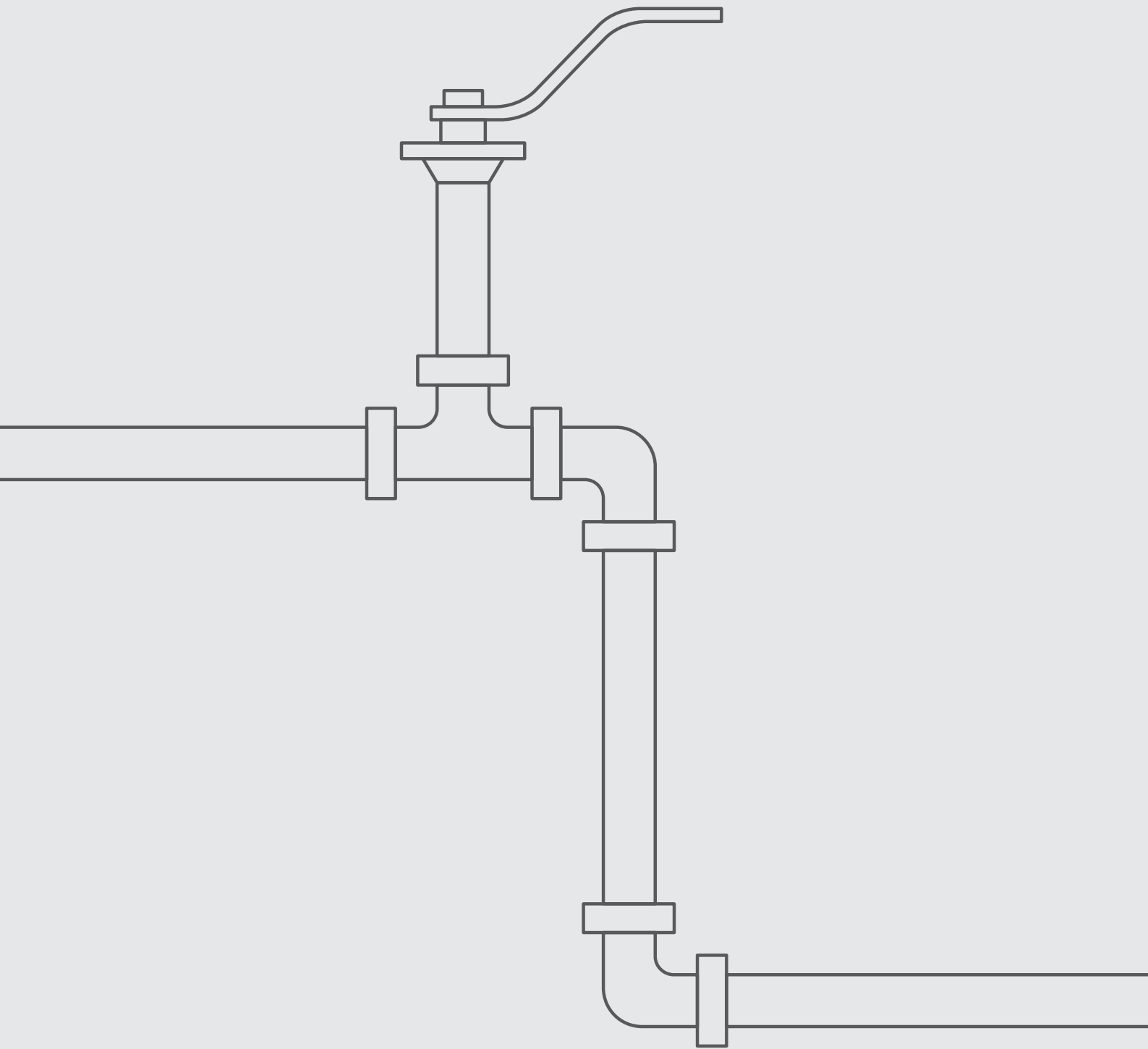
Quick Selection Table

Total Hermetix™ | Port: Standard Port Full Port Tube Size | End Connections: Threaded Flanged Welded
 Ordering Code

	Ball Valve	Design Type	OC	Series	TH	Port	End Con.	Valve Size (Inches)												MWP (ASME Class / DIN PN)											
								1/4	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12										
-60°C - +260°C (-76 °F - +500 °F)	Trunnion Mounted Ball	3 Piece	<input checked="" type="radio"/>	96	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	2500												2500											
			<input checked="" type="radio"/>	95	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>																								
	Floating Ball	3 Piece	<input checked="" type="radio"/>	28	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	2500						2500 (Δp up to 255bar/3700psi)						1500											
			<input checked="" type="radio"/>	27	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	2500						1500																	
			<input checked="" type="radio"/>	24W	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	2500 (Full Δp)						1500																	

ASME Class			150	300	600	900	1500	2500	6000	
Pressure Bar	-1	0	16	20	50	100	150	250	400	1000
Pressure psi	-14	0	290	290	725	1450	2175	3600	5800	15000





95

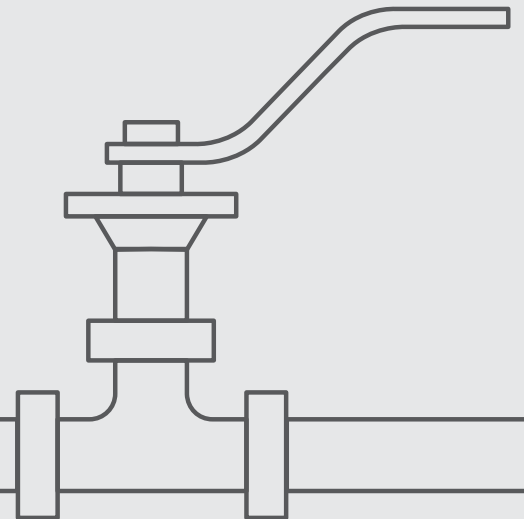
96



High Pressure

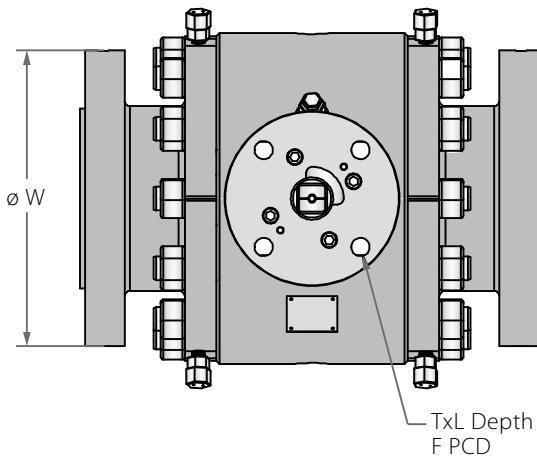
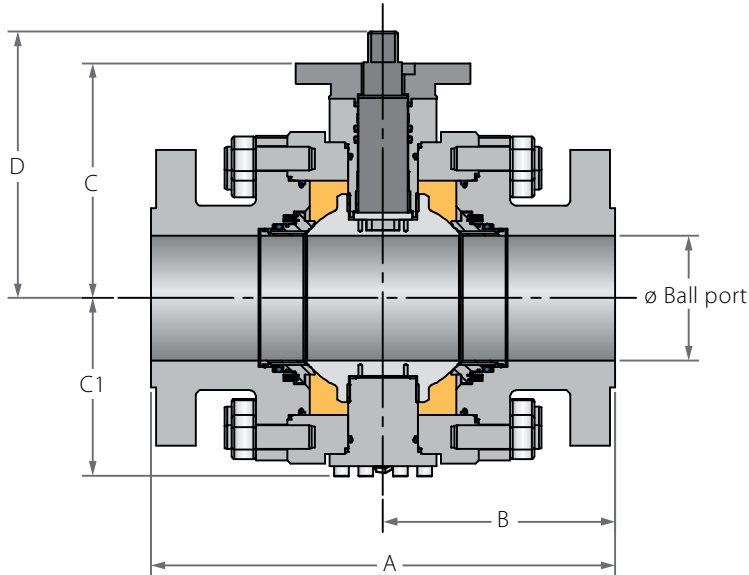
TRUNNIION

3 PIECE

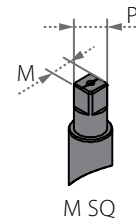


High Pressure Trunnion Mounted Ball 3 Piece

Valve dimensions



Preparation for actuation

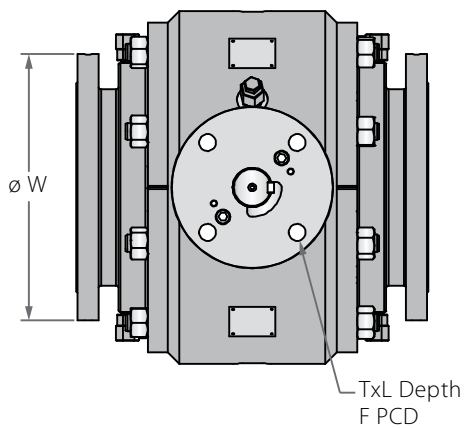
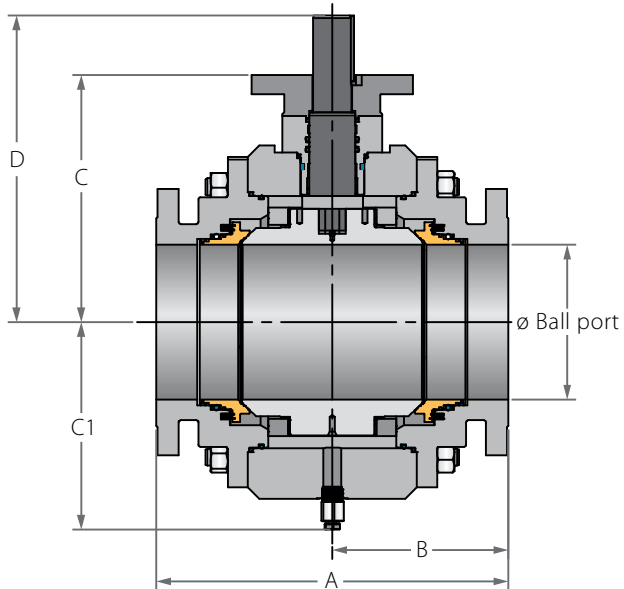


Std. port	Unit	Ball port	A		B		C	C1	D	W		Msq	Psq	F	TxL	Weight kg/lb		Kv / Cv		
			1500	2500	1500	2500				1500	2500					1500	2500	1500	2500	
DN50	mm	49.00	368.00	451.00	184.00	225.50	204.50	159.00	339.00	215.00	235.00	22.00	32.00	(F14)	140.00	18X12 (4 holes)	90	179	281	260
2"	inch	1.93	14.49	17.76	7.24	8.88	8.05	6.26	13.35	8.46	9.25	0.87	1.26	5.51			198	395	325	300
DN80	mm	74.00	470.00	578.00	235.00	289.00	262.00	201.50	342.50	265.00	305.00	27.00	35.00	F14	140.00	18x22 (4 holes)	175	340	735	649
3"	inch	2.91	18.50	22.76	9.25	11.38	10.31	7.93	13.48	10.43	12.01	1.06	1.38	5.51			386	750	850	750
DN100	mm	100.00	546.00	673.00	273.00	336.50	225.00	198.50	299.50	310.00	355.00	36.00	46.20	(F16)	165.00	22x25 (4 holes)	330	646	1384	1228
4"	inch	3.94	21.50	26.50	10.75	13.25	8.86	7.81	11.79	12.20	13.98	1.42	1.82	6.50			728	1424	1600	1420
DN150	mm	150.00	705.00	914.00	352.50	457.00	310.00	272.00	425.00	395.00	485.00	46.00	59.00	(F25)	254.00	22x30 (8 holes)	627	1227	3590	2206
6"	inch	5.91	27.76	35.98	13.88	17.99	12.20	10.71	16.73	15.55	19.09	1.81	2.32	10.00			1382	2705	4150	2550

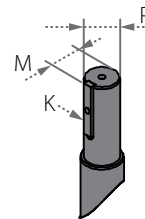


High Pressure Trunnion Mounted Ball 3 Piece

Valve dimensions



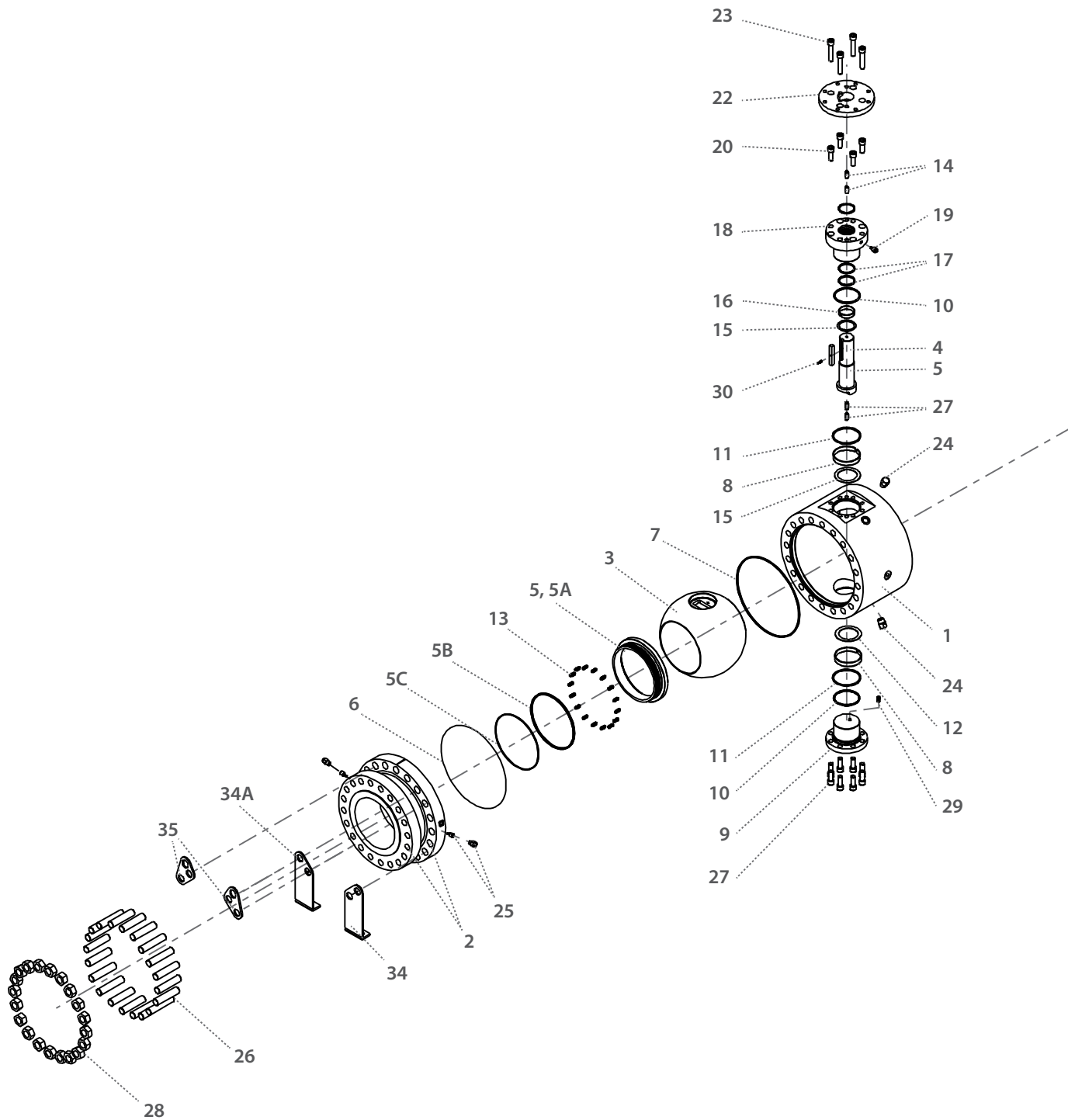
Preparation for actuation



Std. port	Unit	Ball port	A		B		C	C1	D	W		P	M	K	F	TxL	Weight kg/ib		Kv / Cv		
			1500	2500	1500	2500				1500	2500						1500	2500	1500	2500	
DN200	mm	201.00	832.00	1022.00	416.00	511.00	425.00	273.00	540.00	485.00	550.00	72.00	76.50	20.00	(F25)	254.00	18x25	1000	2330	6963	4758
8"	inch	7.91	32.76	40.24	16.38	20.12	16.73	10.75	21.26	19.09	21.65	2.83	3.01	0.79		10.00	(8 holes)	2205	5137	8050	5500
DN250	mm	252.00	991.00	1270.00	495.50	635.00	582.00	374.00	712.00	585.00	675.00	80.00	87.00	22.00	(F30)	298.00	22x30	1900	4427	11418	7526
10"	inch	9.92	39.02	50.00	19.51	25.00	22.91	14.72	28.03	23.03	26.57	3.15	3.43	0.87		11.73	(8 holes)	4189	9760	13200	8700
DN300	mm	303.00	1130.00	1422.00	565.00	711.00	797.00	512.00	927.00	675.00	760.00	80.00	87.00	22.00	(F30)	298.00	22x30	3610	8000	16868	10726
12"	inch	11.93	44.49	55.98	22.24	27.99	31.38	20.16	36.50	26.57	29.92	3.15	3.43	0.87		11.73	(8 holes)	7959	17637	19500	12400

High Pressure Trunnion Mounted Ball 3 Piece

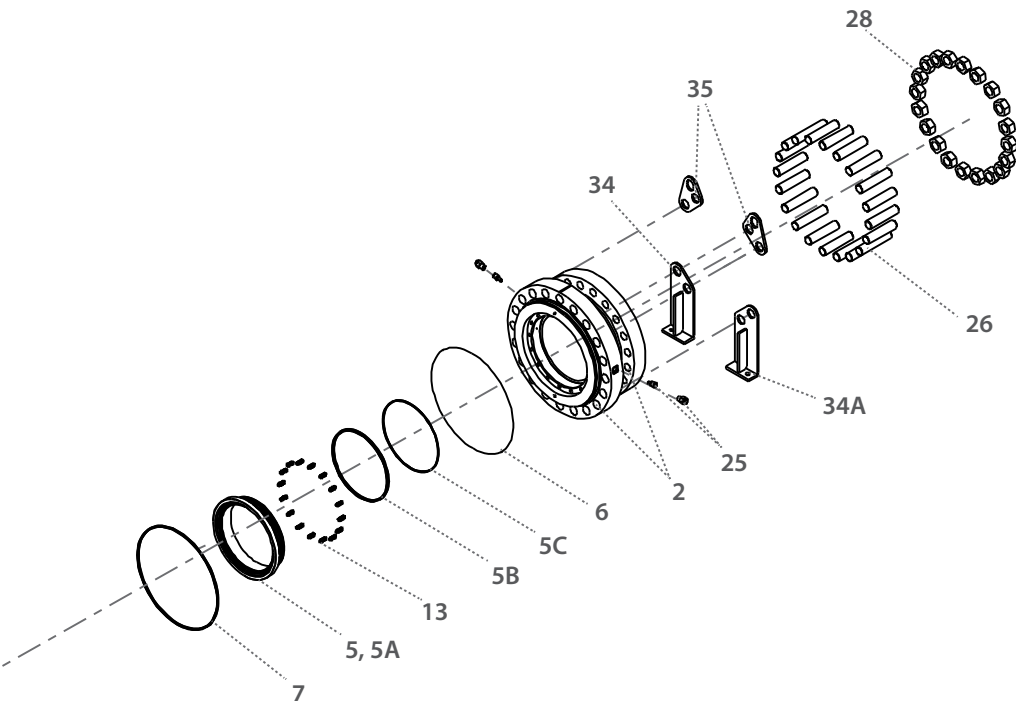
Components & materials





High Pressure Trunnion Mounted Ball 3 Piece

Components & materials



Item	Description	Material specification	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 insert	Acc. Ordering Code	2
5B	Seat seal	HNBR, VITON	2-4
5C	Seat fire safe seal	Graphite	2
6*	Body fire safe seal	Graphite	1
7*	Body seal	HNBR, VITON	1
8	Ball bearing	316L+PTFE	2
9	External trunnion	A350 LF2+ENP, A479 316L	1
10*	Gland plate & external trunnion fire safe seal	Graphite	2
11*	Gland plate & external trunnion seal	HNBR, VITON	2
12	Lower thrust washer	316L+PTFE	1
13	Seat spring	Inconel X750	10-26
14	Gland pin	C. Steel, S. Steel	4

Item	Description	Material specification	Qty.
15	Stem thrust seal	316L+PTFE	1
16	Gland plate bearing	316L+PTFE	1
17	Stem Seal	HNBR, VITON	2
18	Gland plate	A350 LF2+ENP, A479 316L, A105 +ENP	1
19	Stem grease fitting	S. Steel	1
20	Lower gland bolts	A320 L7, A193 B8M	2-6
21*	Stem gasket	Graphite	1
22	Iso plate	A350 LF2, A479 316L, A105	1
23	Upper gland bolts	A320 L7, A193 B8M	2-6
24	Plug drain valve	S. Steel	2
25**	Seat grease fitting + Check valve	S. Steel	4
26	Body stud	A320 L7, A193 B8M	4-20
27	External trunnion bolts	A320 L7, A193 B8M	4-12
28	Body nut	A194 GR-7, A193 GR-8M	4-20
29	Antistatic spring	Inconel X750	1
30	Stem key	H1150D 17-4PH	1

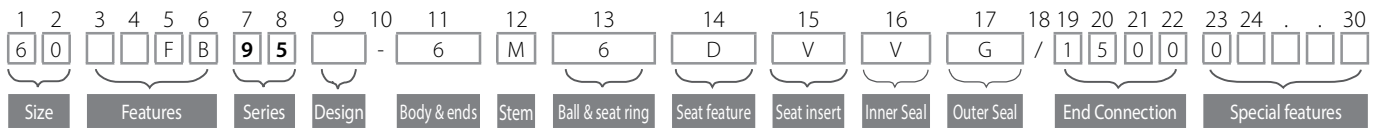
* Repair kit components

** Available from 6" size only



High Pressure Trunnion Mounted Ball Valve - Ordering Code System

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



Size (1-2)		
Code	inch	mm
20	2"	50
30	3"	75
40	4"	100
60	6"	150
80	8"	200
A0	10"	250
A2	12"	300

Features (3-6)	
F	Fire safe
B	Full port

Series- 3 Piece (7-8)	
95	ASME B16.5 #1500
96	ASME B16.5 #2500

Design (9)	
[]	Empty (Stands For future designs)

Body & ends (11)	
4	C. Steel A105
6	S. Steel A479 316
F	C. Steel A350 LF2

Stem (12)	
M	17-4PH A564 Gr 630 H1150D
Z	Inconel 718 B637 N07718

Ball (13)	
4	C. Steel A105+ENP
6	S. Steel A182 F316
F	C. Steel A350 LF2+ENP
M	17-4PH A564 Gr 630 H1150D

Seat feature (14)	
D	Double Piston Effect (DPE) (API 6D DIB-1)
S	Single Piston Effect (SPE) (API 6D DBB)
C	DPE & SPE combination (API 6D DIB-2)

Seat insert (15)	
V	Devlon
K	CF PEEK

Inner Seal (16)	
V	Viton
H	HNBR

Outer Seal (17)	
G	Graphite

End connections (19-22)	
Flanged	
1500	ASME B16.5 #1500
2500	ASME B16.5 #2500
PN250	DIN EN 1092-1 PN250
PN320	DIN EN 1092-1 PN320
PN400	DIN EN 1092-1 PN400

Flanged RTJ	
1500RTJ	ANSI B16.5 #1500 RTJ
2500RTJ	ANSI B16.5 #2500 RTJ

Welded	
XBW160	Extended butt weld sch 160

Special features (23-30)	
L*	seat greasing point
D*	Drain & Vent
Blank	Drain & vent is capped
H*	Drain ball valve & vent
PT**	Basic paint system
PTI**	Offshore, Temp Ambient up to 93°C (200°F)
PT2	Offshore, up to 537°C (1000°F)

* for 6" up

** color RAL 7038

28

27

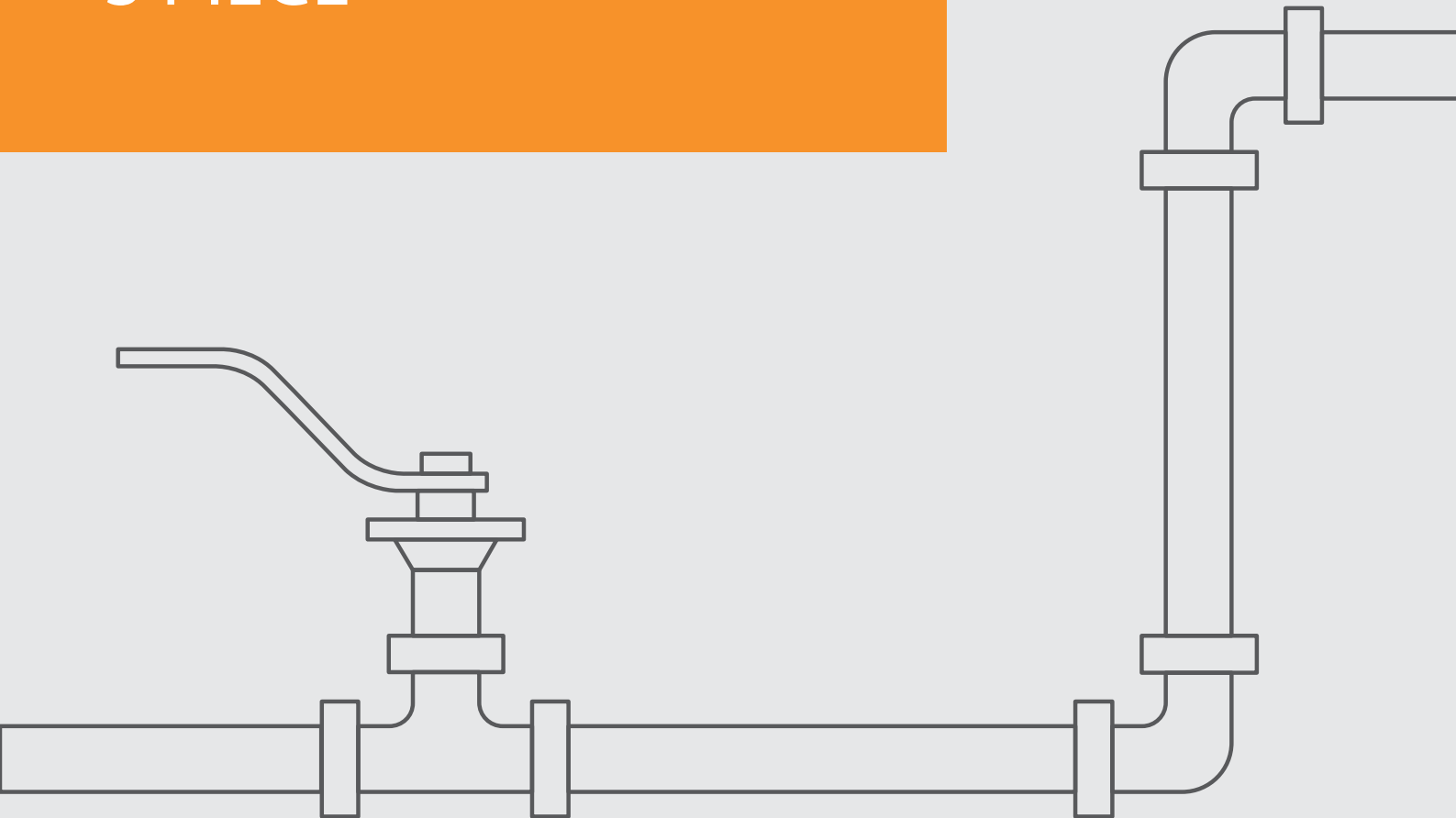
24



High Pressure

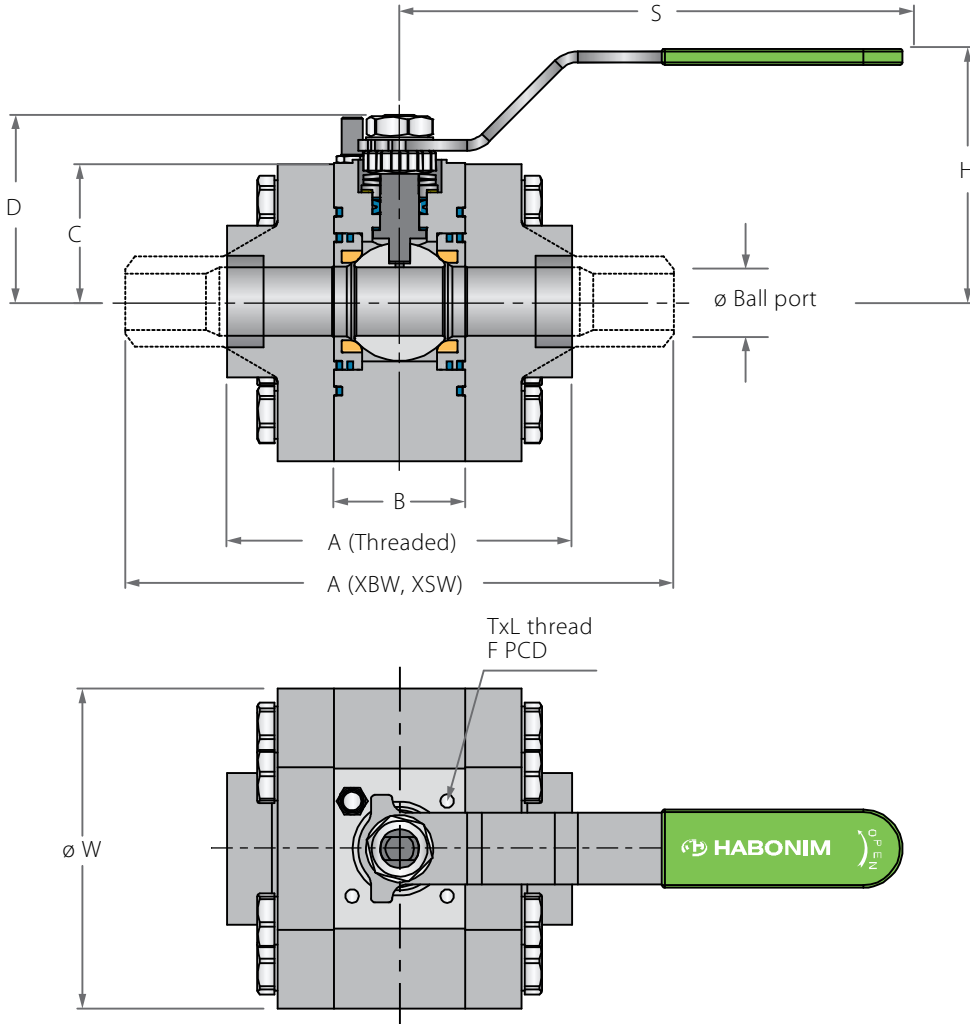
FLOATING BALL

3 PIECE

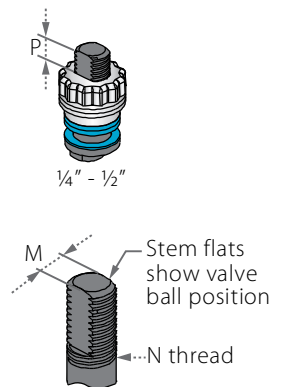


High Pressure Floating Ball 3 Piece

Valve dimensions



Preparation for actuation



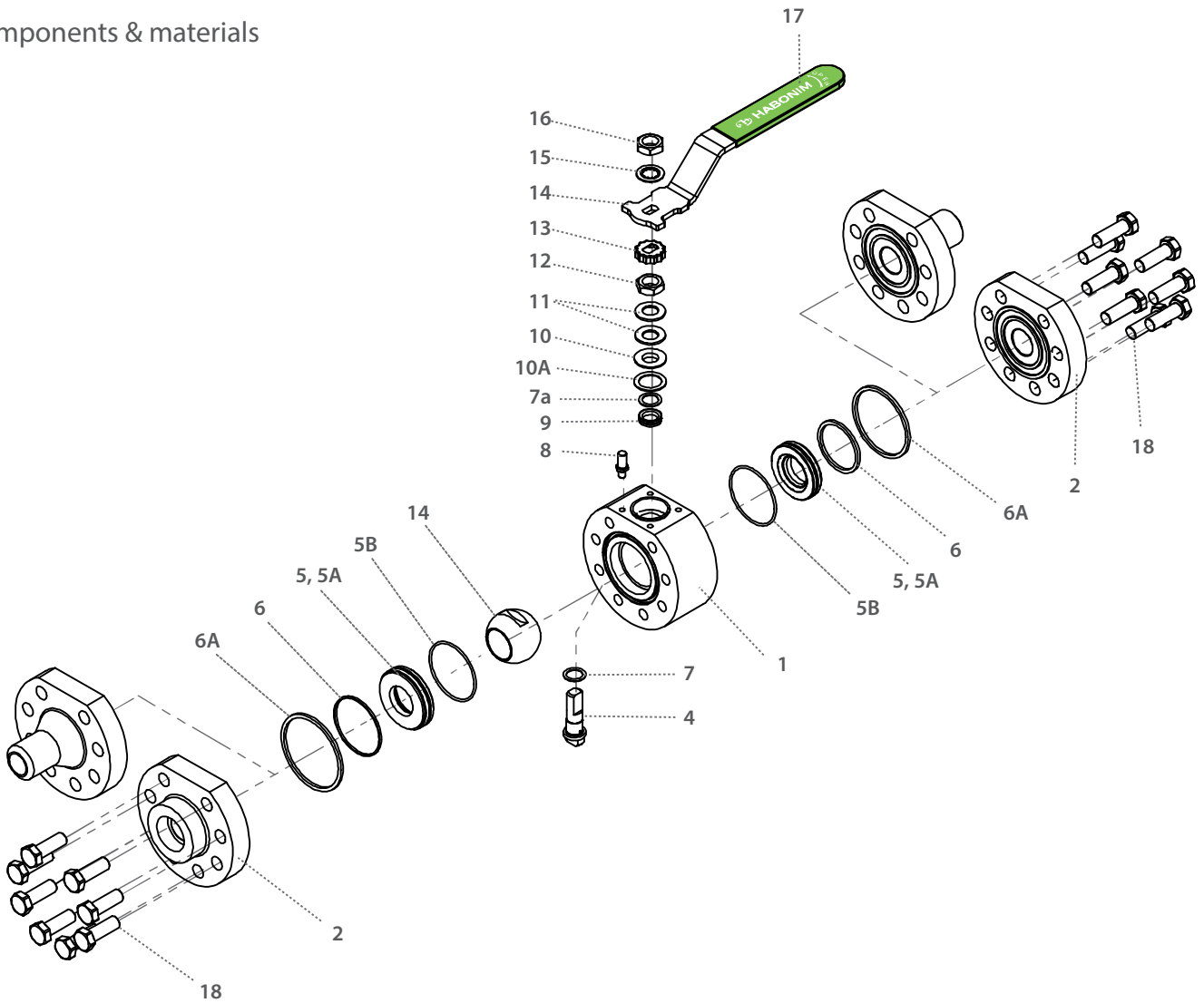
Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weald/Flanged/Tri-clamp end see Face To Face sizes page.

Std. port	Unit	Ball port	A THD	A XBW/XSW	B	C	D	ØW	H	M	N	P	S	ISO PCD	F	TxL	Weight		Kv
																	THD	XBW	
DN8	mm	11.10	92.00	159.00	35.00	29.00	38.00	69.00	63.00	5.50	1/8" UNF	6.70	150.00	(F03)	36.00	M5x8	2.00	2.75	2.6
1/4"	inch	0.44	3.62	6.26	1.38	1.14	1.50	2.72	2.48	0.22	1/8" UNF	0.26	5.91		1.42	M5x8	4.41	6.06	3.0
DN10	mm	11.10	92.00	159.00	35.00	29.00	38.00	69.00	63.00	5.50	1/8" UNF	6.70	150.00	(F03)	36.00	M5x8	2.00	2.75	4.3
3/8"	inch	0.44	3.62	6.26	1.38	1.14	1.50	2.72	2.48	0.22	1/8" UNF	0.26	5.91		1.42	M5x8	4.41	6.06	5.0
DN15	mm	11.10	92.00	159.00	35.00	29.00	38.00	69.00	63.00	5.50	1/8" UNF	6.70	150.00	(F03)	36.00	M5x8	2.00	2.75	6.9
1/2"	inch	0.44	3.62	6.26	1.38	1.14	1.50	2.72	2.48	0.22	1/8" UNF	0.26	5.91		1.42	M5x8	4.41	6.06	8.0
DN20	mm	13.00	100.00	169.00	40.00	34.10	52.40	89.00	82.20	7.50	1/16" UNF	11.30	172.60	(F04)	42.00	M5x8	3.50	4.30	10
3/4"	inch	0.51	3.94	6.65	1.57	1.34	2.06	3.50	3.24	0.30	1/16" UNF	0.44	6.80		1.65	M5x8	7.72	9.48	12
DN25	mm	20.60	125.00	190.00	49.00	43.70	66.00	104.00	92.50	8.70	9/16" UNF	14.30	230.00	(F05)	50.00	M6x8	6.00	6.80	28
1"	inch	0.81	4.92	7.48	1.93	1.72	2.60	4.09	3.64	0.34	9/16" UNF	0.56	9.06		1.97	M6x8	13.23	14.99	32
DN32	mm	25.40	133.00	193.00	49.00	51.50	69.50	119.00	96.00	8.70	1/16" UNF	14.30	237.00	(F05)	50.00	M6x8	8.50	9.50	49
1 1/4"	inch	1.00	5.24	7.60	1.93	2.03	2.74	4.69	3.78	0.34	1/16" UNF	0.56	9.33		1.97	M6x8	18.74	20.95	57



High Pressure Floating Ball 3 Piece

Components & materials



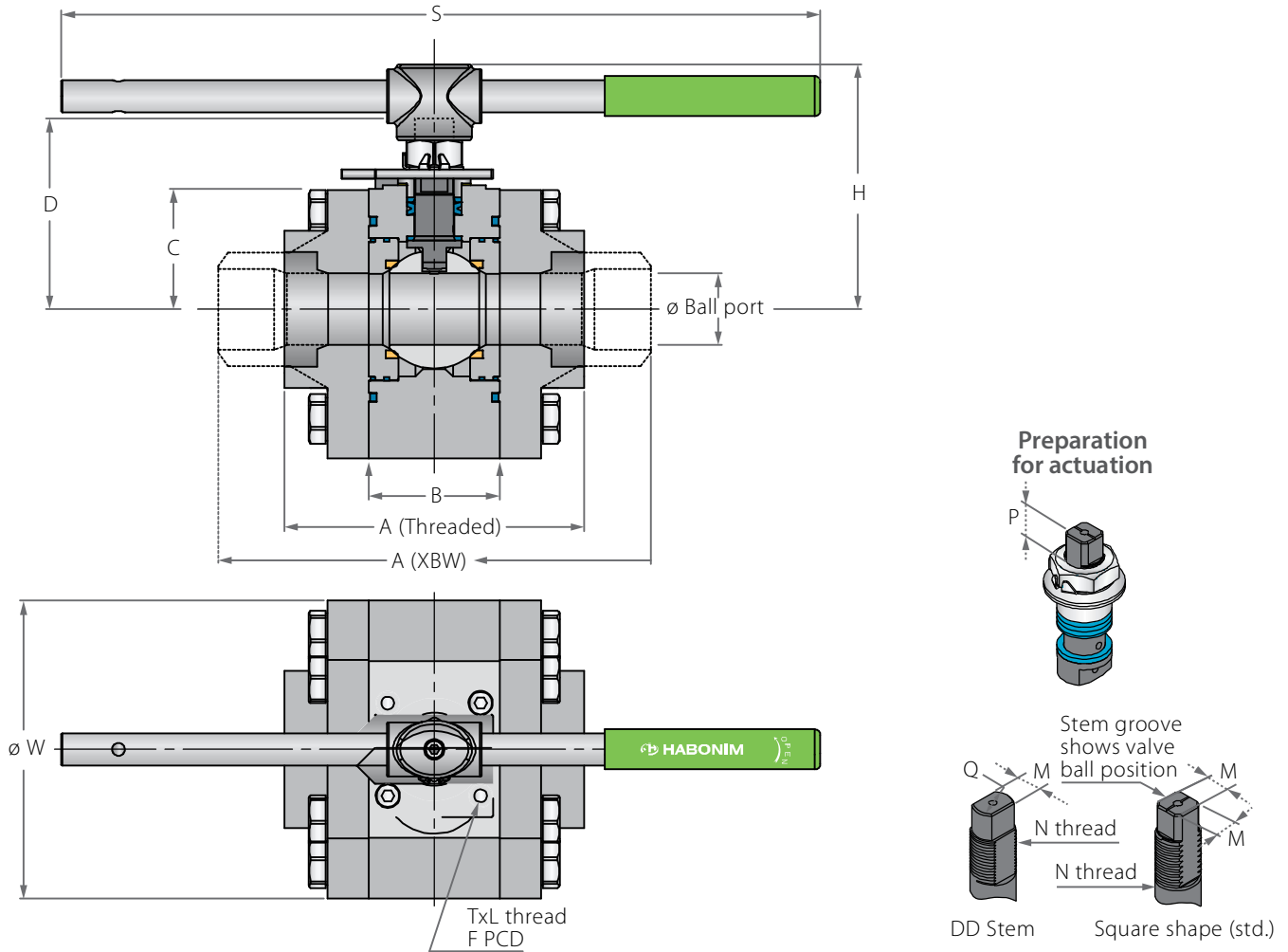
Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	2
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat insert	Acc. Ordering Code	2
5A*	Seat housing	S. Steel	2
5B*	Seat seal	Acc. Ordering Code	2
6*	Seat seal	Acc. Ordering Code	2
6A*	Body seal	Acc. Ordering Code	2
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE	1
7a**	Anti-abrasion ring	PEEK, CF PEEK, PCTFE	1
8	Stop pin	S. Steel	1
10	Follower	S. Steel	1

Item	Description	Material specification	Qty.
10A*	Slide bearing	S. Steel	1
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
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	12-16
20	Anti static spring	S. Steel	1
21	Anti static plunger	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Repair kit components

High Pressure Floating Ball 3 Piece

Valve dimensions



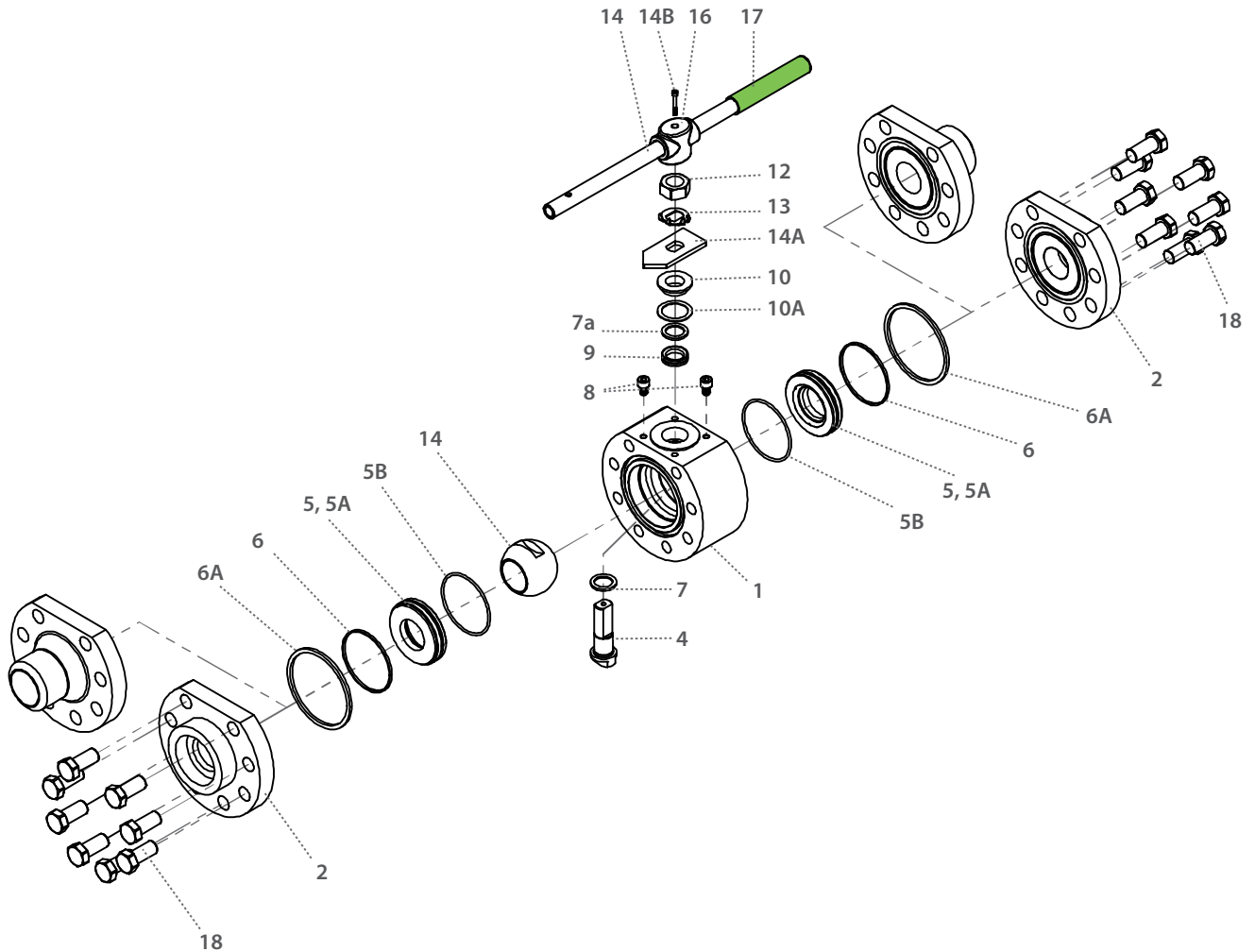
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Std. port	Unit	Ball port	A THD	A XBW/XSW	B	C	D	ØW	H	M	N	P	Q	S	ISO PCD	F	TxL	Weight		Kv
																		THD	XBW	
DN40	mm	31.80	154.00	237.00	70.00	53.00	94.60	134.00	123.30	13.90	M20x2.5	14.25	Full thread	400.00 (F07)	70.00	M8x10	12.50	14.50	69	
1½"	inch	1.25	6.06	9.49	2.76	2.09	3.72	5.28	4.85	0.55		0.56					15.75	2.76	27.56	31.97
DN50	mm	38.20	170.00	241.00	70.00	64.10	101.60	169.00	147.00	13.90	M20x2.5	13.80	Full thread	400.00 (F07)	70.00	M8x10	18.70	22.00	102	
2"	inch	1.50	6.18	9.49	2.76	2.52	4.00	6.65	5.79	0.55		0.54					15.75	2.76	41.23	48.51
DN65	mm	50.90	194.00	302.00	94.00	87.50	134.00	197.00	174.50	18.90	1 - 1/4" UNS-2A	20.00	22.70	610.00 (F10)	102.00	M10x13	34.00	36.00	208	
2½"	inch	2.00	7.64	11.89	3.70	3.44	5.28	7.76	6.87	0.74		0.79	0.89	24.02	4.02		74.97	79.38	241	
DN80	mm	63.75	254.00	378.00	115.00	110.00	167.60	249.00	229.50	28.50	1 - 1/2" UNF-2A	22.25	35.20	916.00 (F12)	125.00	M12x18	66.00	76.00	300	
3"	inch	2.51	10.00	14.88	4.53	4.33	6.60	9.80	9.04	1.12		0.88	1.39	36.06	4.92		145.53	167.58	348	
DN100	mm	82.80	N/A	410.00	130.00	136.00	203.00	298.00	263.00	28.50	1 - 1/2" UNF-2A	30.00	35.20	916.00 (F14)	140.00	M16x20	-	110.00	615	
4"	inch	3.26	N/A	16.14	5.12	5.35	7.99	11.73	10.35	1.12		1.18	1.39	36.06	5.51		-	242.55	713	
DN150	mm	111.10	N/A	510.00	175.00	177.00	281.00	389.00	-	35.90	2" UN-2A	40.00	43.50	- (F16)	165.00	M20x25	-	235.00	872	
6"	inch	4.37	N/A	20.08	6.89	6.97	11.06	15.31	-	1.41		1.57	1.71	-	6.50		-	518.18	1012	
DN200	mm	144.40	N/A	650.00	210.00	227.00	367.00	489.00	-	45.90	2-3/4" UN-2A	50.60	-	-	165.00	M24x25	-	490.00	1552	
8"	inch	5.69	N/A	25.59	8.27	8.94	14.45	19.25	-	1.81		1.99	-	-	6.50		-	1080.45	1800	



High Pressure Floating Ball 3 Piece

Components & materials



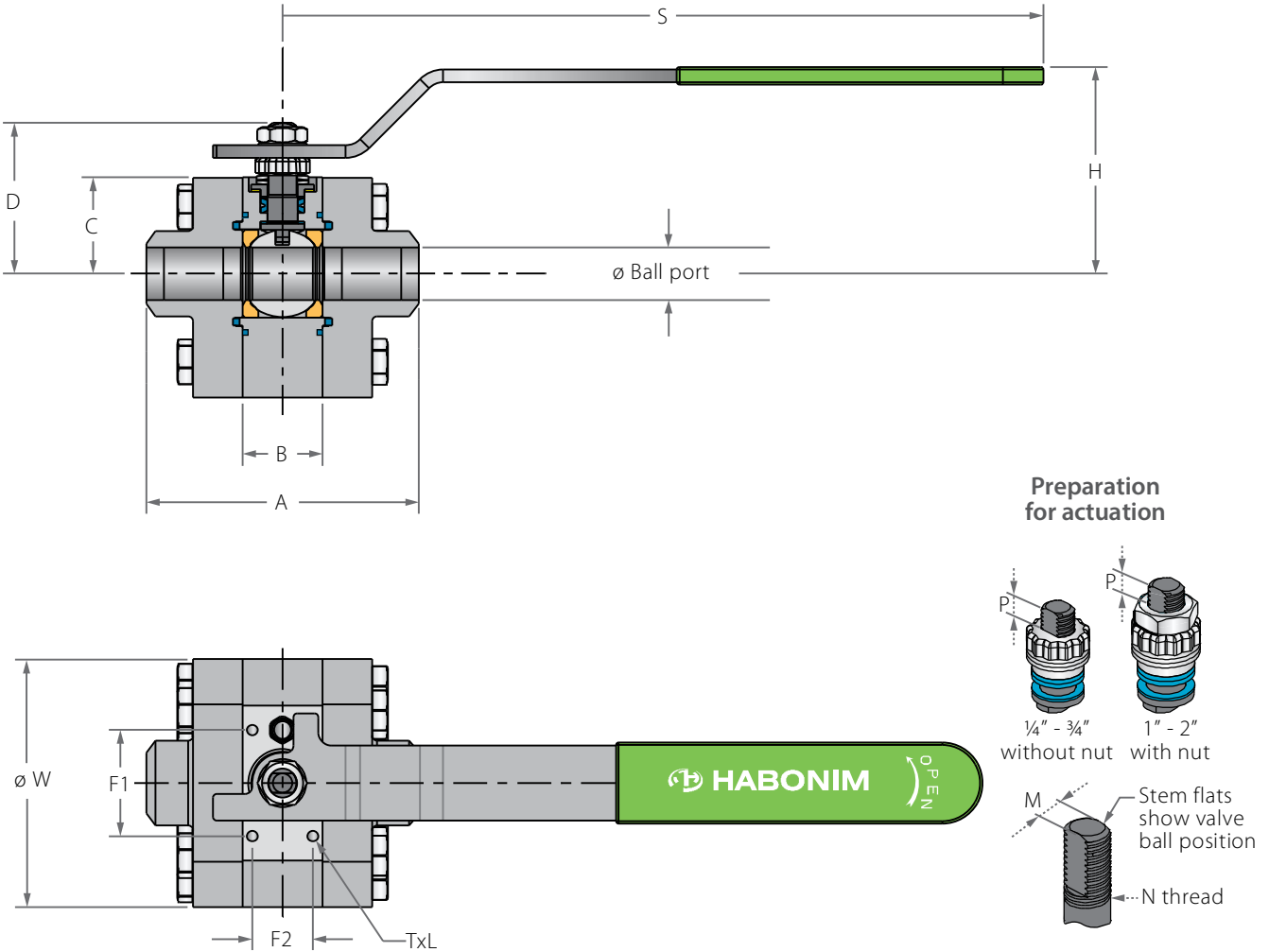
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3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat insert	Acc. Ordering Code	2
5A*	Seat housing	S. Steel	2
5B*	Seat seal	Acc. Ordering Code	2
6*	Seat seal	Acc. Ordering Code	2
6A*	Body seal	Acc. Ordering Code	2
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE	1
8	Stop pin	S. Steel	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	S. Steel	1

Item	Description	Material specification	Qty.
10A*	Slide bearing	S. Steel	1
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
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 bolts	S. Steel	12-16
20	Anti static spring	S. Steel	1
21	Anti static plunger	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Repair kit components

High Pressure Floating Ball 3 Piece

Valve dimensions



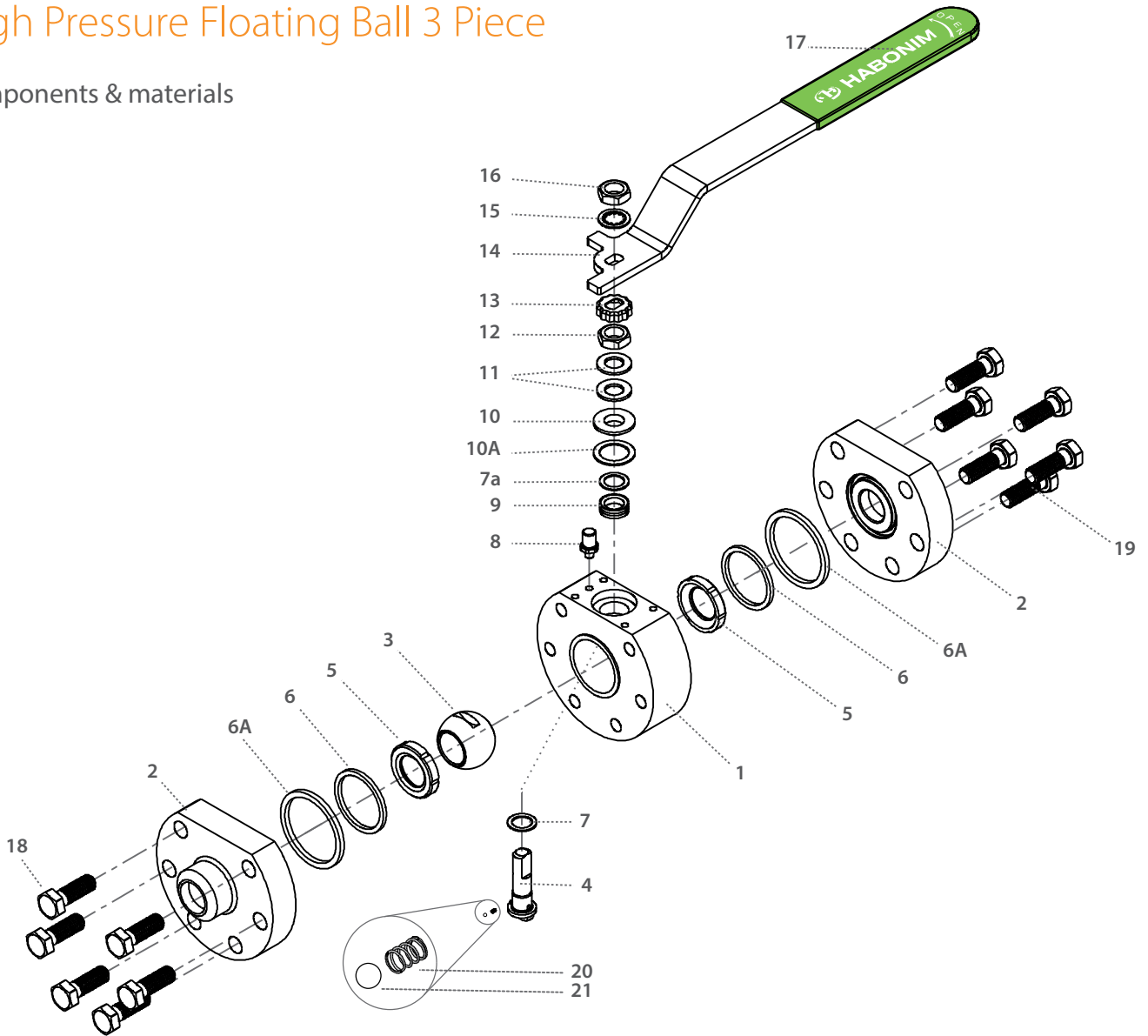
Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weald/Flanged/Tri-clamp end see Face To Face sizes page.

Std. port	Unit	Ball port	A	B	C	D	øW	H	M	N	P	S	TxL	F1	F2	weight kg/lb	kv cv
DN8	mm	11.10	77.80	20.60	27.00	38.00	69.50	46.00	5.50	3/8" UNF	7.00	179.00	M5x8	34.00	0.00	1.60	2.6
1/4"	inch	0.44	3.06	0.81	1.06	1.50	2.74	1.81	0.22	3/8" UNF	0.28	7.05	M5x8	1.34	0.00	3.50	3.0
DN10	mm	11.10	77.80	20.60	27.00	38.00	69.50	46.00	5.50	3/8" UNF	7.00	179.00	M5x8	34.00	0.00	1.60	4.3
3/8"	inch	0.44	3.06	0.81	1.06	1.50	2.74	1.81	0.22	3/8" UNF	0.28	7.05	M5x8	1.34	0.00	3.50	5.0
DN15	mm	11.10	77.80	20.60	27.00	38.00	69.50	46.00	5.50	3/8" UNF	7.00	179.00	M5x8	34.00	0.00	1.60	6.9
1/2"	inch	0.44	3.06	0.81	1.06	1.50	2.74	1.81	0.22	3/8" UNF	0.28	7.05	M5x8	1.34	0.00	3.50	8.0
DN20	mm	14.30	85.00	24.60	29.40	40.40	79.00	48.00	5.50	3/8" UNF	7.00	179.00	M5x8	34.00	15.00	2.40	10
3/4"	inch	0.56	3.35	0.97	1.16	1.59	3.11	1.89	0.22	3/8" UNF	0.28	7.05	M5x8	1.34	0.59	5.30	12
DN25	mm	20.60	107.90	31.80	38.20	55.70	98.00	64.00	7.54	7/16" UNF	7.00	300.00	M5x8	42.00	24.00	4.50	28
1"	inch	0.81	4.25	1.25	1.50	2.19	3.86	2.52	0.30	7/16" UNF	0.28	11.81	M5x8	1.65	0.94	9.90	32
DN32	mm	25.40	120.70	41.20	38.20	60.30	109.00	68.70	7.54	1/2" UNF	7.00	300.00	M5x8	42.00	24.00	5.40	49
1 1/4"	inch	1.00	4.75	1.62	1.50	2.37	4.29	2.70	0.30	1/2" UNF	0.28	11.81	M5x8	1.65	0.94	11.90	57
DN40	mm	31.80	131.20	48.40	50.00	72.80	128.00	81.10	8.71	5/8" UNF	10.00	400.00	M6x8	40.00	36.00	9.50	69
1 1/2"	inch	1.25	5.17	1.91	1.97	2.87	5.04	3.19	0.34	5/8" UNF	0.39	15.75	M6x8	1.57	1.42	20.90	80
DN50	mm	38.20	142.90	56.30	55.00	77.80	145.00	81.10	8.71	3/4" UNF	10.00	400.00	M6x8	58.00	40.00	13.10	102
2"	inch	1.50	5.63	2.22	2.17	3.06	5.71	3.19	0.34	3/4" UNF	0.39	15.75	M6x8	2.28	1.57	28.90	118



High Pressure Floating Ball 3 Piece

Components & materials



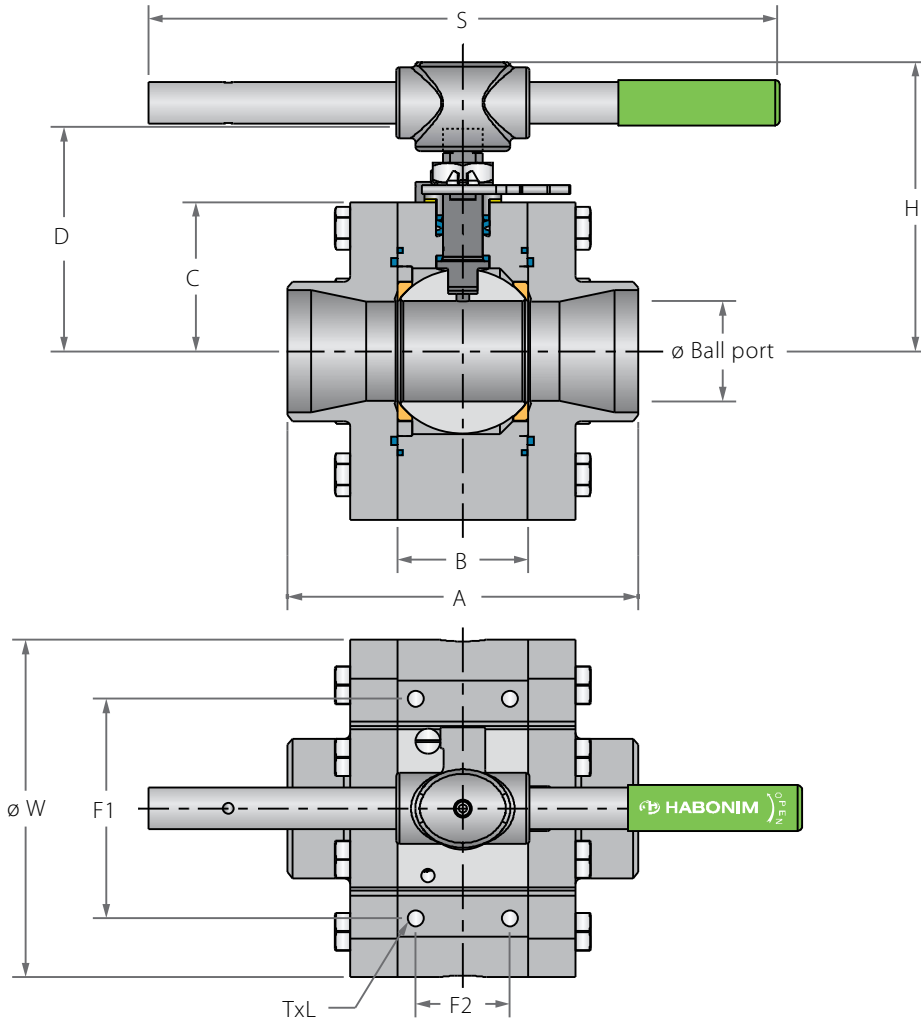
Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	2
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	2
6*	Inner seal	Acc. Ordering Code	2
6A*	Outer seal	Acc. Ordering Code	2
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE	1
8	Stop pin	S. Steel	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	S. Steel	1
10A*	Slide bearing	S. Steel	1

Item	Description	Material specification	Qty.
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
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	12-16
20	Anti static spring	S. Steel	1
21	Anti static plunger	S. Steel	1
23	Tag (not shown)	S. Steel	1

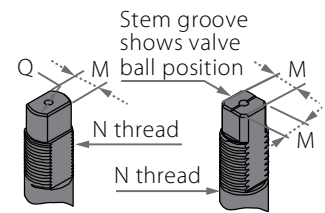
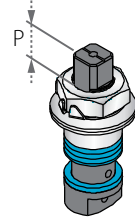
* Repair kit components

High Pressure Floating Ball 3 Piece

Valve dimensions



Preparation for actuation



Special shape add WR to description (when ordering the valve)
Standard shape

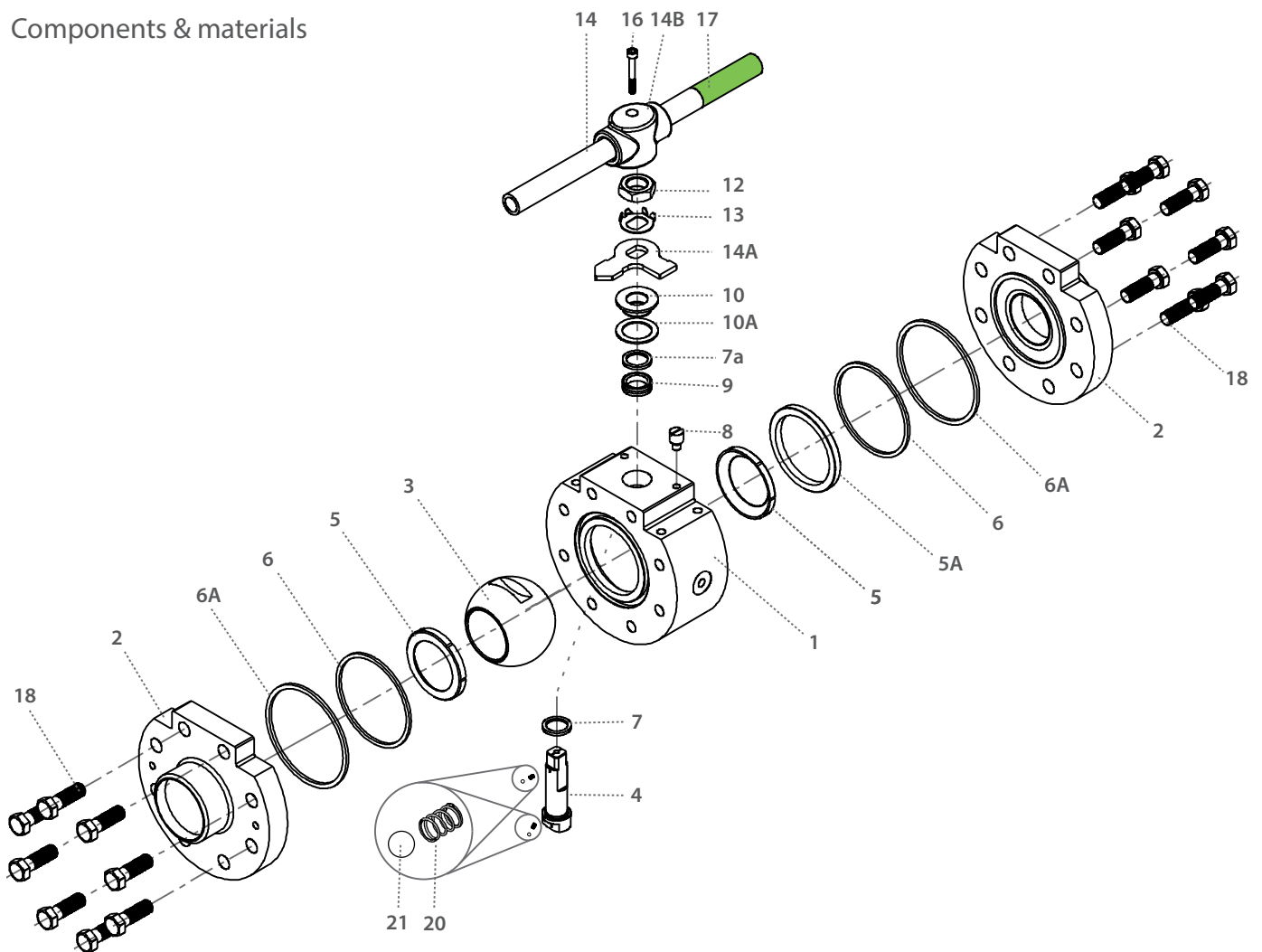
Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weald/Flanged/Tri-clamp end see Face To Face sizes page.

Std. port	Unit	Ball port	A	B	C	D	ØW	H	M	M-DD	N	P	Q	S	TxL	F1	F2	Weight kg/lb	kv cv
DN65	mm	50.80	172.60	72.60	77.20	115.80	190.00	147.00	13.90	-	M20x2.5	16.50	-	256.00	M12x16	92.00	50.00	25.00	208
2½"	inch	2.00	6.80	2.86	3.04	4.56	7.48	5.79	0.55	-		0.65	-	10.08		3.62	1.97	55.10	241
DN80	mm	63.75	224.00	83.30	70.00	144.90	215.00	185.00	18.90	15.90	1"-14"	16.60	22.70	402.00	M10x12	140.00	60.00	39.00	300
3"	inch	2.51	8.82	3.28	2.76	5.70	8.46	7.28	0.74	0.62	UNS	0.65	0.89	15.83		5.51	2.36	85.98	348
DN100	mm	82.70	268.00	108.80	90.00	160.70	250.00	201.00	18.90	15.90	1"-14"	16.60	22.70	610.00	M10x12	150.00	70.00	64.00	615
4"	inch	3.26	10.55	4.28	3.54	6.33	9.84	7.91	0.74	0.62	UNS	0.65	0.89	24.02		5.91	2.76	141.10	713
DN150	mm	114.00	336.00	146.10	120.00	226.30	295.00	280.00	28.50	23.80	1½"-12"	26.20	35.20	916.00	M16x18	140.00	66.00	120.00	872
6"	inch	4.49	13.23	5.57	4.72	8.91	11.61	11.02	1.12	0.94	UNF	1.03	1.39	36.06		5.51	2.60	264.55	1012
DN200	mm	144.40	558.60	178.60	136.00	300.70	348.00	-	35.90	-	2"-8"	58.00	-	-	M20x25	170.00	96.00	225.00	1552
8"	inch	5.69	21.99	7.03	5.35	11.84	13.70	-	1.41	-	UN-2A	2.28	-	-		6.69	3.78	496.04	1800



High Pressure Floating Ball 3 Piece

Components & materials



Item	Description	Material specification	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	Support ring	S. Steel	1
6*	Inner seal	Acc. Ordering Code	2
6A*	Outer Seal	Acc. Ordering Code	2
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE	1
7a**	Anti-abrasion ring	PEEK, CF PEEK, PCTFE	1
8	Stop pin	S. Steel	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	S. Steel	1

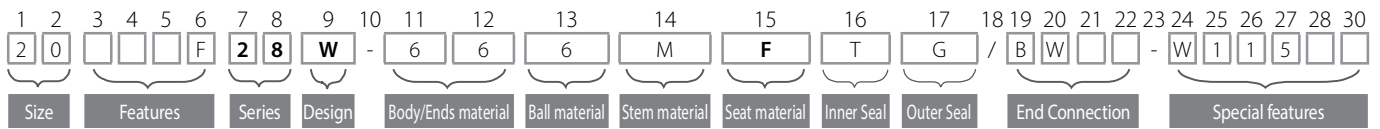
Item	Description	Material specification	Qty.
10A*	Slide bearing	S. Steel	1
12	Stem nut	S. Steel	1
13	Tab lock washer	S. Steel	1
14	Handle	S. Steel	1
14A	Stop plate	S. Steel	1
14B	Wrench head	S. Steel	1
16	Wrench bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body bolt	S. Steel	16-28
20	Anti static spring	S. Steel	2
21	Anti static plunger	S. Steel	2
23	Tag (not shown)	S. Steel	1

* Repair kit components



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**



Size (1-2)		
Code	inch	mm
02	¼"	8
03	⅜"	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

Features (3-6)	
F	Fire safe
B	Full port
O	Clean assembly for O2 service

Series (7-8)	
28	HP Float 3 piece

Design (9)	
W	Total HermetiX Integrity package

Body/Ends material (11-12)	
6	S. Steel 316L
4	C. steel A105
Z	Inconel 718 B637
7	Monel
A	Alloy-20 A351 CN7M
W	Alloy-C22 B574
D	Duplex
K	Super Duplex
S	254SMO
F	C. steel LF2

Ball material (13)	
6	S. Steel 316L
M	High Strength S. Steel
Z	Inconel 718 B637
7	Monel
A	Alloy-20 A351 CN7M
W	Alloy-C22 B574
D	Duplex A479
K	Super Duplex A479
S	254SMO A479

Stem material (14)	
M	High Strength S. Steel
Z	Inconel 718 B637
7	Inconel 718 B637
W	Alloy-C22 B574
D	Duplex A479
K	Super Duplex A479

Seat material (15)	
F	Hybrid Seat (info in special features)

Inner Seal Material (16)	
T	PTFE
G	Expanded graphite
V	Viton
B	NBR

Outer Seal Material (17)	
G	Expanded graphite
T	PTFE
V	Viton
B	NBR

End connections (19-22)	
Welded Ends	
XBW160*	Extended butt weld ends (sch160)
XSW	Extended socket weld ends
BW80	butt weld ends (sch80)
BW160*	butt weld ends (sch160)
SW	Socket weld ends
XBW80	Extended butt weld ends (sch80)
XBWXXS*	Extended butt weld ends (sch XXS)
Threaded Ends	
NPT	ASME B1.20.1 - National Pipe Taper thread
BSPT	EN 10226 - Pipe Taper thread
BSPP	ISO228-1, DIN3852 - Pipe Parallel thread
DIN3852	DIN3852 - Pipe Parallel thread
AS5202	AS 5202 on-face gasket sealing threaded connection
Flanged RF	
1500	ANSI B16.5 #1500 RF
2500	ANSI B16.5 #2500 RF
PN160-F3	EN1092 PN160, FTF F3
PN250-F3	EN1092 PN250, FTF F3
PN320-F3	EN1092 PN320, FTF F3
PN400-F3	EN1092 PN400, FTF F3
Flanged RTJ	
1500RTJ	ANSI B16.5 #1500 RTJ
2500RTJ	ANSI B16.5 #2500 RTJ
Flanged SAE J518 / ISO 6162 Threaded	
SAE3000	Code 61/ISO 6162-1 Flat face
SAE6000	Code 62/ISO 6162-2 Flat face

Hybrid Seats (24-27)

24	25	26	27
Insert material	Upstream / Downstream	Insert Shape	Seal Type
W PVDF	Hybrid seats on upstream and downstream, spring loaded	0 Scraper	5 L+PTFE+Graphite
K CF PEEK			
C PCTFE	Hybrid seats on upstream and downstream	1 Round	1 U+NBR
L Virgin PEEK			0 U+Viton
Y Delrin			6 L+PTFE

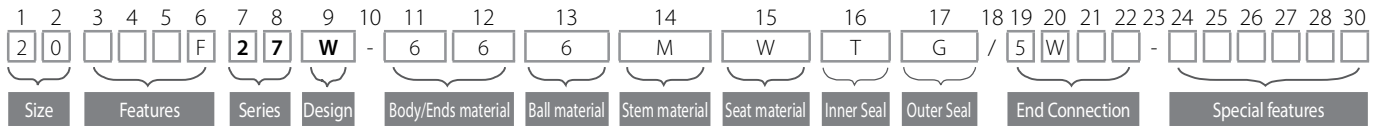
* St. Port only

Special Features (24-30)	
P250	Ball with upstream pressure relief hole
Valve Special Stem Seals	
HC	High Cycle service
HYD	Hydrogen service



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**



Size (1-2)		
Code	inch	mm
02	¼"	8
03	⅜"	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

Features (3-6)	
F	Fire safe
B	Full port
O	Clean assembly for O2 service

Series (7-8)	
27	HP Float 3 piece

Design (9)	
W	Total HermetiX Integrity package

Body/Ends material (11-12)	
6	S. Steel 316L
4	C. steel A105
Z	Inconel 718 B637
7	Monel
A	Alloy-20 A351 CN7M
W	Alloy-C22 B574
D	Duplex
K	Super Duplex
S	254SMO
F	C. steel LF2

Ball material (13) ¼"-¾"	
M	High Strength S. Steel

Ball material (13) 1" and up	
6	S. Steel 316L
M	High Strength S. Steel
Z	Inconel 718 B637
7	Monel
A	Alloy-20 A351 CN7M
W	Alloy-C22 B574
D	Duplex A479
K	Super Duplex A479
S	254SMO A479

Stem material (14)	
M	High Strength S. Steel
Z	Inconel 718 B637
7	Monel
W	Alloy-C22 B574
D	Duplex A479
K	Super Duplex A479

Seat material (15)	
W	PVDF
K	CF PEEK
Y	Delrin
L	Virgin PEEK
C	PCTFE
F	Hybrid seat

Inner Seal Material (16)	
B	NBR
T	PTFE
V	Viton
G	Expanded graphite

Outer Seal Material (17)	
G	Expanded graphite
T	PTFE
V	Viton
B	NBR

End connections (19-22)	
Welded Ends	
SW	Socket weld ends
BW80	butt weld ends (sch80)
BW160 *	butt weld ends (sch160)
XBW80	Extended butt weld ends (sch80)
XBW160 *	Extended butt weld ends (sch160)
XBWXS *	Extended butt weld ends (sch XXS)
XSW	Extended socket weld ends
Threaded Ends	
NPT	ASME B1.20.1 - National Pipe Taper thread
BSPT	EN 10226 - Pipe Taper thread
BSPP	ISO228-1, DIN3852 - Pipe Parallel thread
DIN3852	DIN3852 - Pipe Parallel thread
AS5202	AS 5202 on-face gasket sealing threaded connection
Flanged RF	
1500	ANSI B16.5 #1500 RF
2500	ANSI B16.5 #2500 RF
PN160-F3	EN1092 PN160, FTF F3
PN250-F3	EN1092 PN250, FTF F3
PN320-F3	EN1092 PN320, FTF F3
PN400-F3	EN1092 PN400, FTF F3
Flanged RTJ	
1500RTJ	ANSI B16.5 #1500 RTJ
2500RTJ	ANSI B16.5 #2500 RTJ
Flanged SAE J518 / ISO 6162 Threaded	
SAE3000	Code 61/ISO 6162-1 Flat face
SAE6000	Code 62/ISO 6162-2 Flat face

* St. Port only

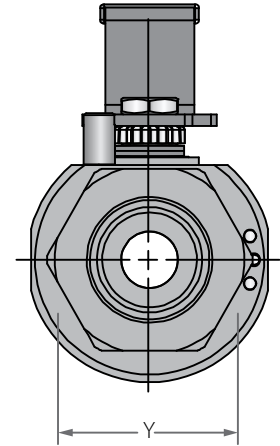
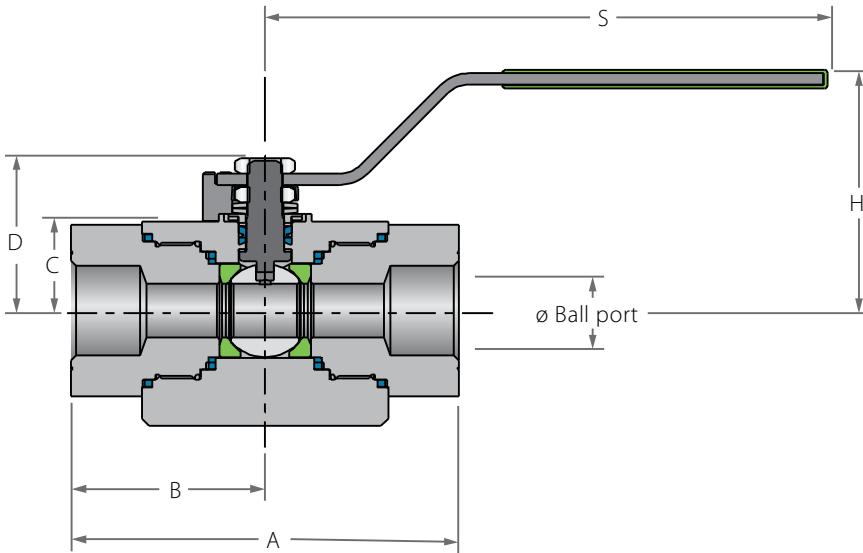
Hybrid Seats (24-27)

24	25	26	27
Insert material	Upstream / Downstream	Insert Shape	Seal Type
K CF PEEK	Hybrid seats on upstream and downstream, spring loaded	0 Scraper	8 U+NBR+graphite
W PVDF			7 U+Viton+graphite
C PCTFE	Hybrid seats on upstream and downstream	1 Round	1 U+NBR
Y Delrin			0 U+Viton
Y Delrin			

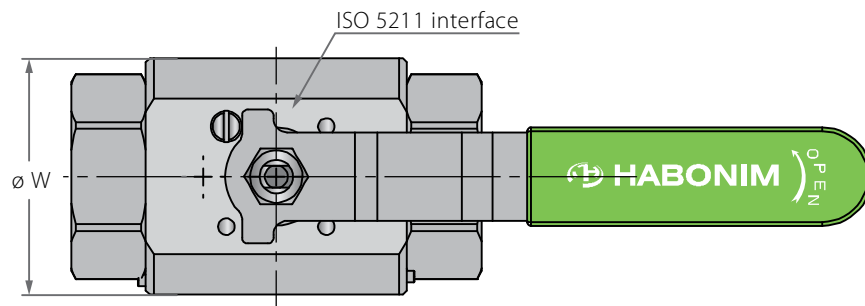
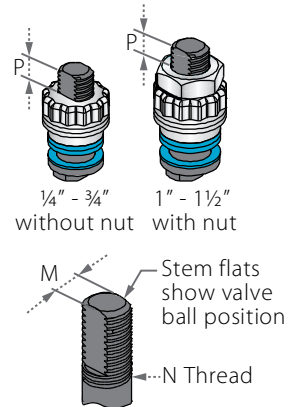
Special Features (24-30)	
P250	Ball with upstream pressure relief hole
Valve Special Stem Seals	
HC	High Cycle service
HYD	Hydrogen service

High Pressure Floating Ball 3 Piece

Valve dimensions



Preparation for actuation

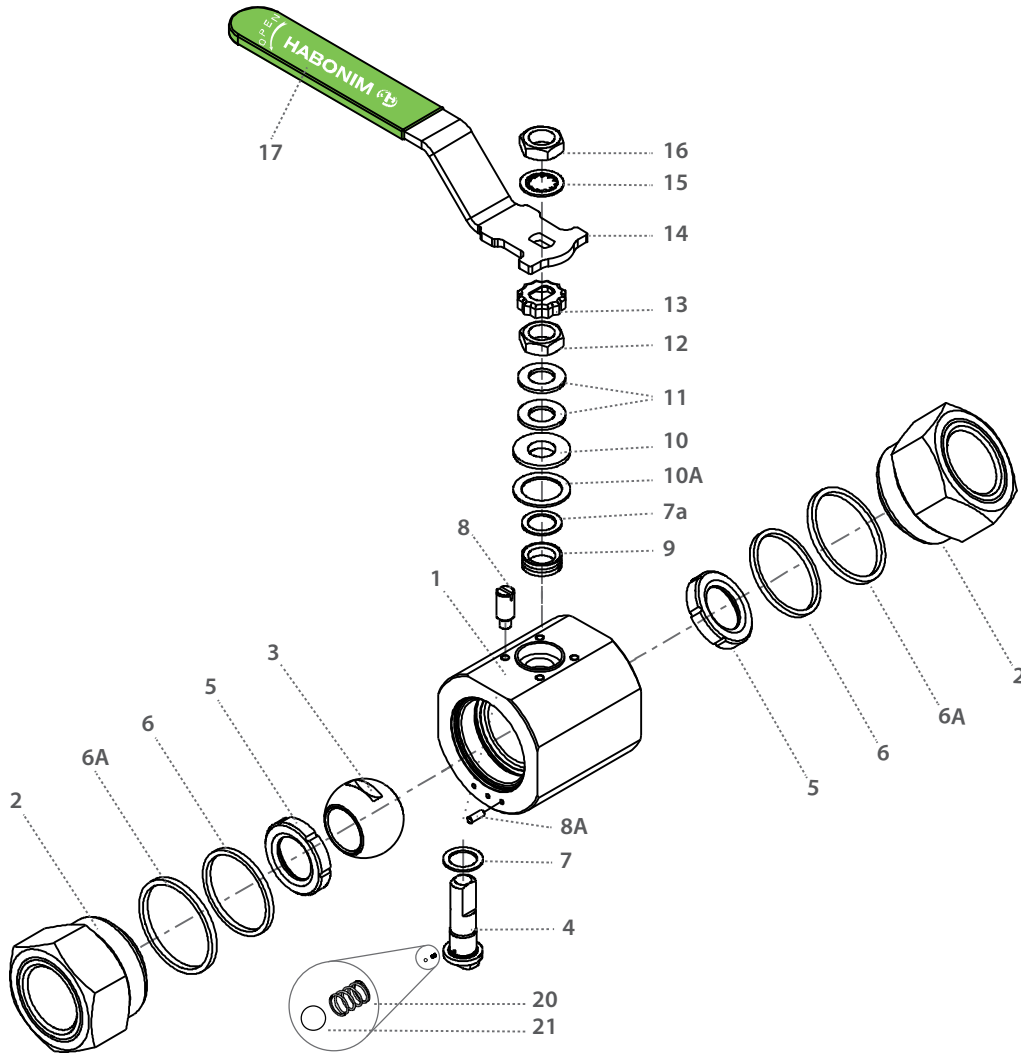


Std. port	Full port	Unit	Ball port	A	B	C	D	H	M	N	P	W	S	Y	weight kg/lb	kv cv
	DN8	mm	11.15	91	45.5	21.50	37.90	42.1	5.54	1/2" UNF	11.1	54	179	45	0.8	4.3
	1/4"	inch	0.44	3.58	1.79	0.84	1.49	1.66	0.22		0.43	2.12	7.05	1.77	1.76	5.00
DN15	DN10	mm	11.15	91	45.5	24.50	37.90	42.1	5.54	3/8" UNF	11.1	54	179	45	0.8	6.9
1/2"	3/8"	inch	0.44	3.58	1.79	0.84	1.49	1.66	0.22		0.43	2.12	7.05	1.77	1.76	8.00
DN20	DN15	mm	14.3	104.25	52.12	23.90	40.30	45	5.54	1/2" UNF	11.1	62	179	60	1.27	10
3/4"	1/2"	inch	0.56	4.10	2.05	0.94	1.59	1.77	0.22		0.43	2.44	7.05	2.36	2.79	12.00
DN25	DN20	mm	20.6	126.6	63.3	37.90	55.60	60.3	7.54	3/4" UNF	15.4	84.5	193	77	2.1	28
1"	3/4"	inch	0.81	4.98	2.49	1.49	2.19	2.37	0.29		0.60	3.32	7.60	3.03	4.63	32.00
DN32	DN25	mm	25.4	137.25	68.62	42.50	60.2	68.7	7.54	1/2" UNF	15.4	93	193	85	2.9	49
1 1/4"	1"	inch	1.00	5.40	2.70	1.67	2.37	2.70	0.29		0.90	3.66	7.60	3.34	6.39	57.00
DN40	DN32	mm	31.8	161.94	80.97	43.55	73.00	81.1	8.7	3/4" UNF	19.6	99	287	95	4.8	69
1 1/2"	1 1/4"	inch	1.50	6.37	3.18	1.71	2.87	3.19	3.19		0.77	3.89	11.30	3.74	10.58	80.00



High Pressure Floating Ball 3 Piece

Components & materials



Item	Description	Material specification	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
6*	Inner seal	Acc. Ordering Code	2
6A*	Outer seal	Acc. Ordering Code	2
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE	1
8	Stop pin	S. Steel	1
8A	Dowel Pin	S. Steel	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	S. Steel	1

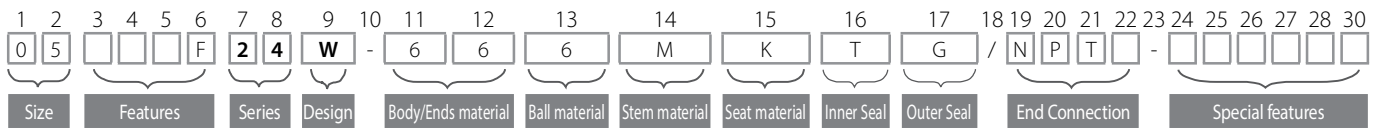
Item	Description	Material specification	Qty.
10A*	Slide bearing	S. Steel	1
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
13	Locking clip	S. Steel	1
14	Handle	S. Steel	1
15	Serrated washer	S. Steel	1
16	Handle nut	S. Steel	1
17	Sleeve	PVC	1
20	Anti static spring	S. Steel	1
21	Anti-static plunger	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Repair kit components



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**



Size (1-2)		
Code	inch	mm
02	¼"	8
03	⅜"	10
05	½"	15
07	¾"	20
10	1"	25
12	1¼"	32
15	1½"	40

Features (3-6)	
F	Fire safe
B	Full port
O	Clean assembly for O2 service

Series (7-8)	
24	HP Float 3 piece

Design (9)	
W	Total HermetiX Integrity package

Body/Ends material (11-12)	
6	S. Steel 316L
4	C. steel A105
F	C. steel LF2

Ball material (13)	
6	S. Steel 316L
M	High Strength S. Steel

Stem material (14)	
M	High Strength S. Steel
Z	Inconel 718 B637

Seat material (15)	
W	PVDF
K	CF PEEK
Y	Delrin
L	Virgin PEEK
C	PCTFE

Inner Seal Material (16)	
T	PTFE
G	Expanded graphite
V	Viton
B	NBR

Outer Seal Material (17)	
G	Expanded graphite
T	PTFE
V	Viton
B	NBR

End connections (19-22)	
Threaded Ends	
NPT	ASME B1.20.1 - National Pipe Taper thread
BSPP	ISO228-1 - Pipe Parallel thread
DIN3852	DIN3852 - Pipe Parallel thread
BSPT EN	10226 - Pipe Taper thread
AS5202	AS 5202 on-face gasket sealing threaded connection
MNPT	Male NPT
SAE J1926-A	SAE J1926-A
Clamp	
LL	Compression fitting (Imperial) - No nuts & Ferrules
LM	Compression fitting (metric) - No nuts & Ferrules
LL-NF	Compression fitting (Imperial) - with nuts & Ferrules
LM-NF	Compression fitting (metric) - with nuts & Ferrules
Welded	
XBW80	Extended butt weld ends (sch80)
Special Features (24-30)	
P250	Ball with upstream pressure relief hole
Valve Special Stem Seals	
HC	High Cycle service
HYD	Hydrogen service
LAX	FDA Compliant, Stem seal, Virgin Peek thrust and TFM, X shape, gasket