



SANITARY VALVES

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Floating Ball	
ASME BPE 3 Piece	257
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SANITARY VALVES

General



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



Habonim Sanitary valves are equipped (in some series) with the Total HermetiX integrity package for superior sealing, safety and environmental care.

Sanitary Valve

Habonim's line of Sanitary ball valves for the pharmaceutical, bioprocessing, food and beverage industries is in wide use in leading production and research facilities.

Features

Materials

- FDA and USP Class VI compliant polymers or elastomers are used in the series.
- Controlled ferrite cast or forged bar materials are used and polished (in some series) to avoid rouging on austenitic stainless-steel surfaces and corrosion attack on welding areas.
- Electro-polished surface finishes are available upon request for some series.
- EC 1935 - as an option

Design

- Purge and drain ports are available upon request to facilitate CIP/SIP operation.
- Diverter and various multiport configurations are available upon request.

Reference standards

- 48 and R48 series valves are designed and tested according to ASME BPE standard.
- EC 1935 compliance – as an option.



Quick Selection Table

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

		Valve Size (Inches)																	
		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6						
Temperature: -60°C - +260°C (-76 °F ÷ +500 °F)	Ball Valve	Design Type	OC	Series	TH	Port	End Con.		300										
			OC	Y47	<input checked="" type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	900				400						
		OC	Flush tank	R48		<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	300										

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

Polishing and Electro-polishing (for 48 / 48R Series)

To minimize contamination and to avoid corrosion/roughing problems, inner surfaces which come into direct or indirect contact with the flow media are polished and, upon request, electro-polished.

For cast/forged valves the body, ball, seat retainer (2" size and above) and the end connections are polished internally. For bar stock valves, additional polishing is carried out the body and end connections outer surfaces.

When requested, electro-polishing is carried out on the body, ball, seat retainer (2" size and above) and end connections.

The standard line polishing level is 0.625 μ-m (25 μ-in) Ra max. Higher levels of surface finish up to 0.375 μ-m (15 μ-in) Ra max are available, including internal and external electro-polishing.

Habonim does not use Animal Derived Ingredients (ADI's) in its surface finishing processes.

Ra Reading for Metallic Contact Surfaces				Mechanically Polished and Electropolished			
ASME BPE Surface designation	Ra Max.		Habonim	ASME BPE Surface designation	Ra Max.		Habonim
	μ-in.	μ-m	Code		μ-in.	μ-m	Code
SF1	20	0.51	G32	SF4	15	0.38	E32
SF2*	25	0.64	G24	SF5	20	0.51	E24
				SF6	25	0.64	E18

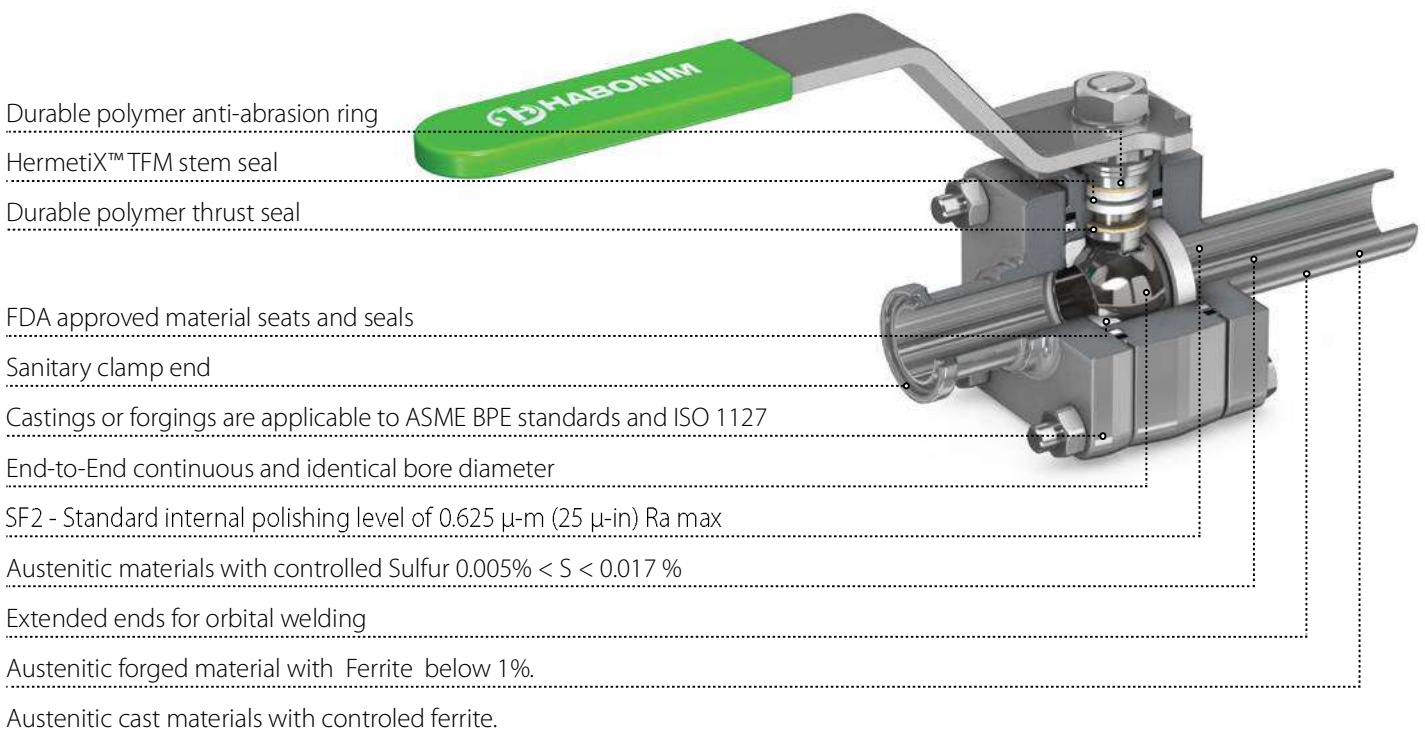
* SF2 is the 48/R48 series standard surface finish, no need to add 'G24' suffix

SANITARY VALVES

Cleaning and Assembling

Habonim's cleaning, assembly and inspection procedure for the Sanitary line ensures the cleanliness required by Bioprocessing, Pharmaceutical or Oxygen services.

Habonim uses a state of the art, environmentally friendly, alkaline-based automatic degreasing system with multiple stages of cleaning, rinsing and drying chambers to ensure that particles, grease, metal chips and other contamination hazards that can be introduced by a poor deburring process or shop dirt are removed thoroughly before the assembly process begins. Upon completion of the cleaning process, the valves are assembled in an oil free restricted area by qualified personnel who are specially trained to perform this task. The employees wear clean working clothes and latex gloves throughout the procedure. The equipment and tools are cleaned before use and the work surfaces are covered with a clean polyethylene sheet before performing the valve assembly.

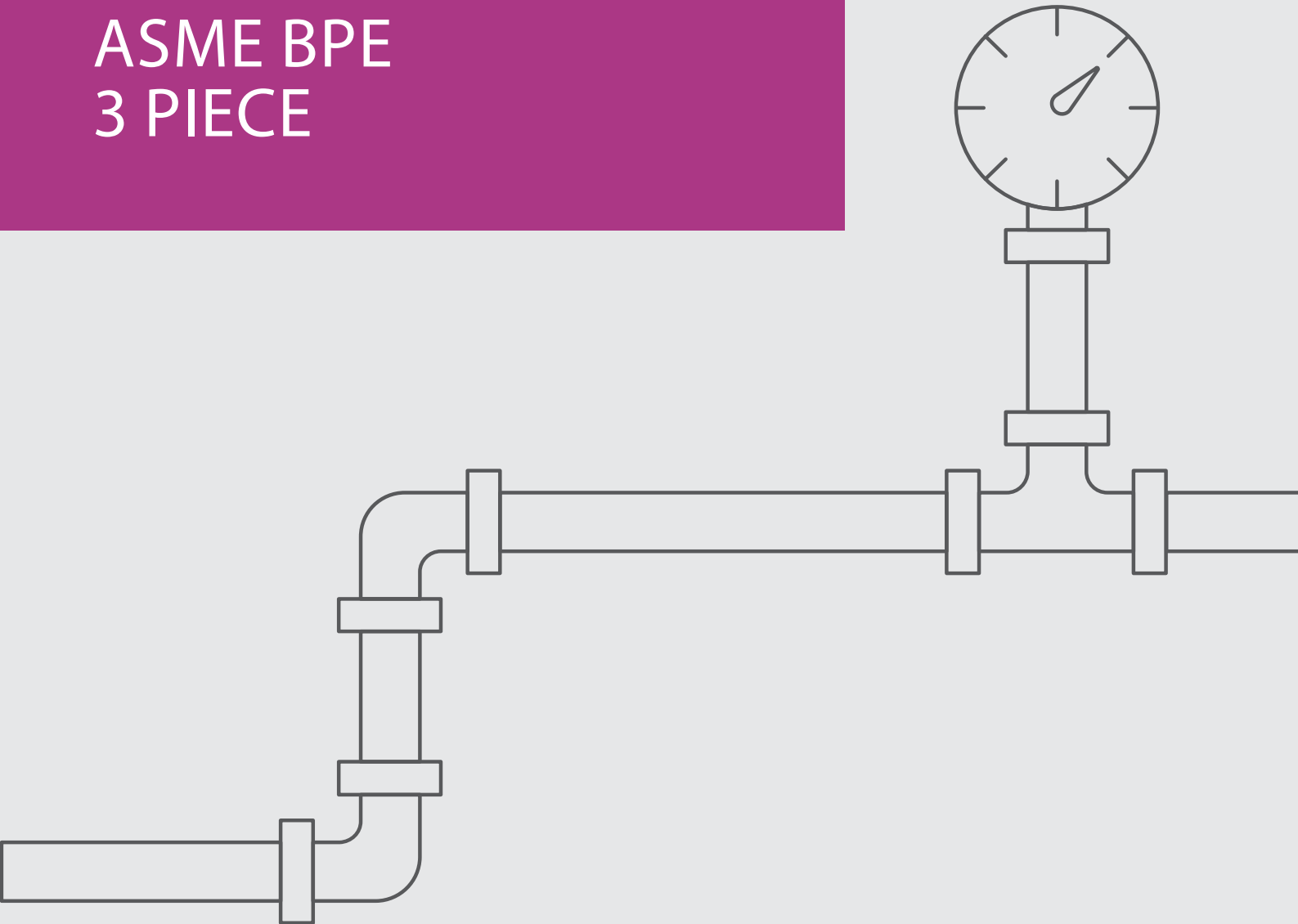




Sanitary Valves

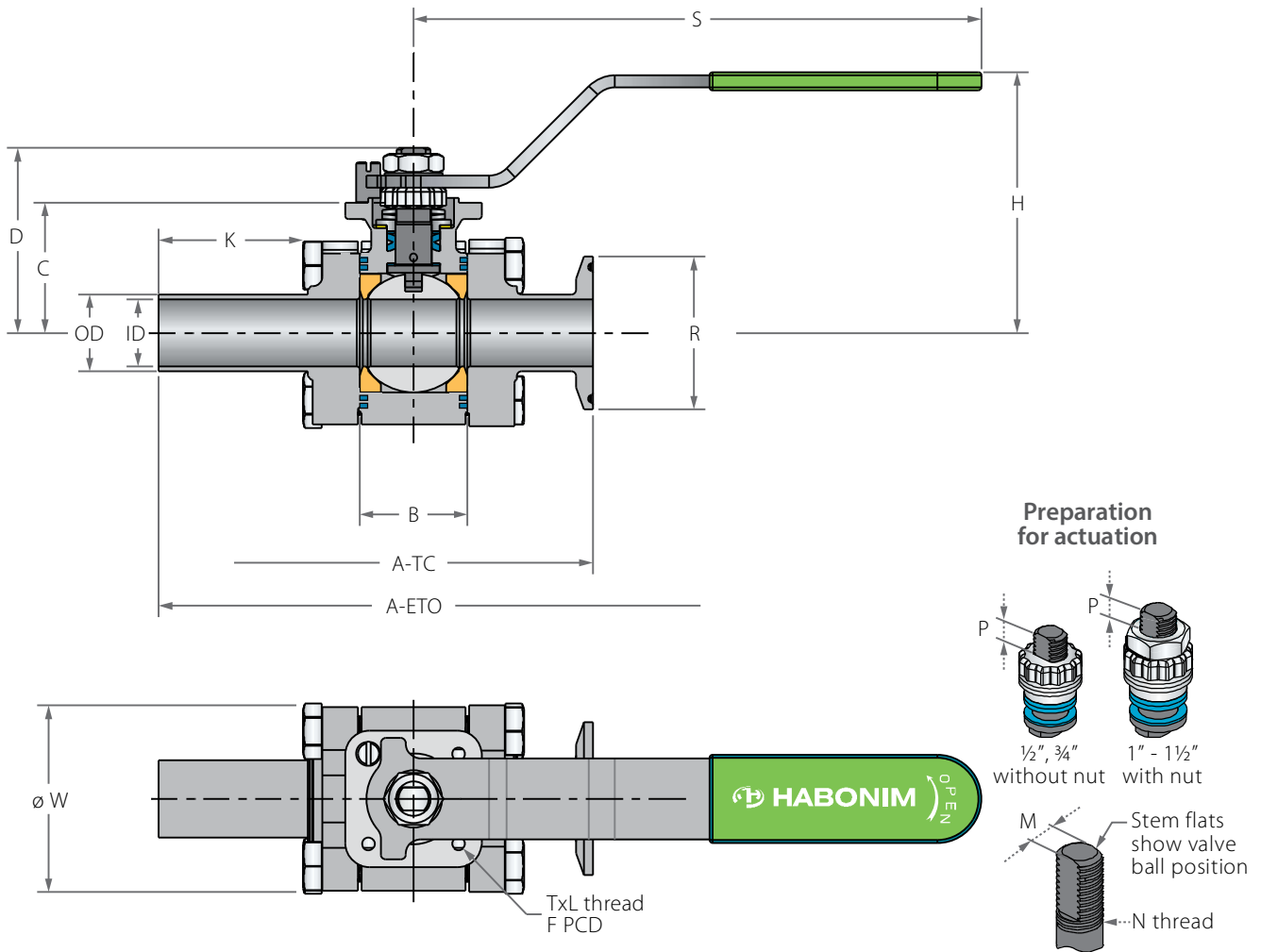
FLOATING BALL

ASME BPE
3 PIECE



ASME BPE Floating Ball 3 Piece

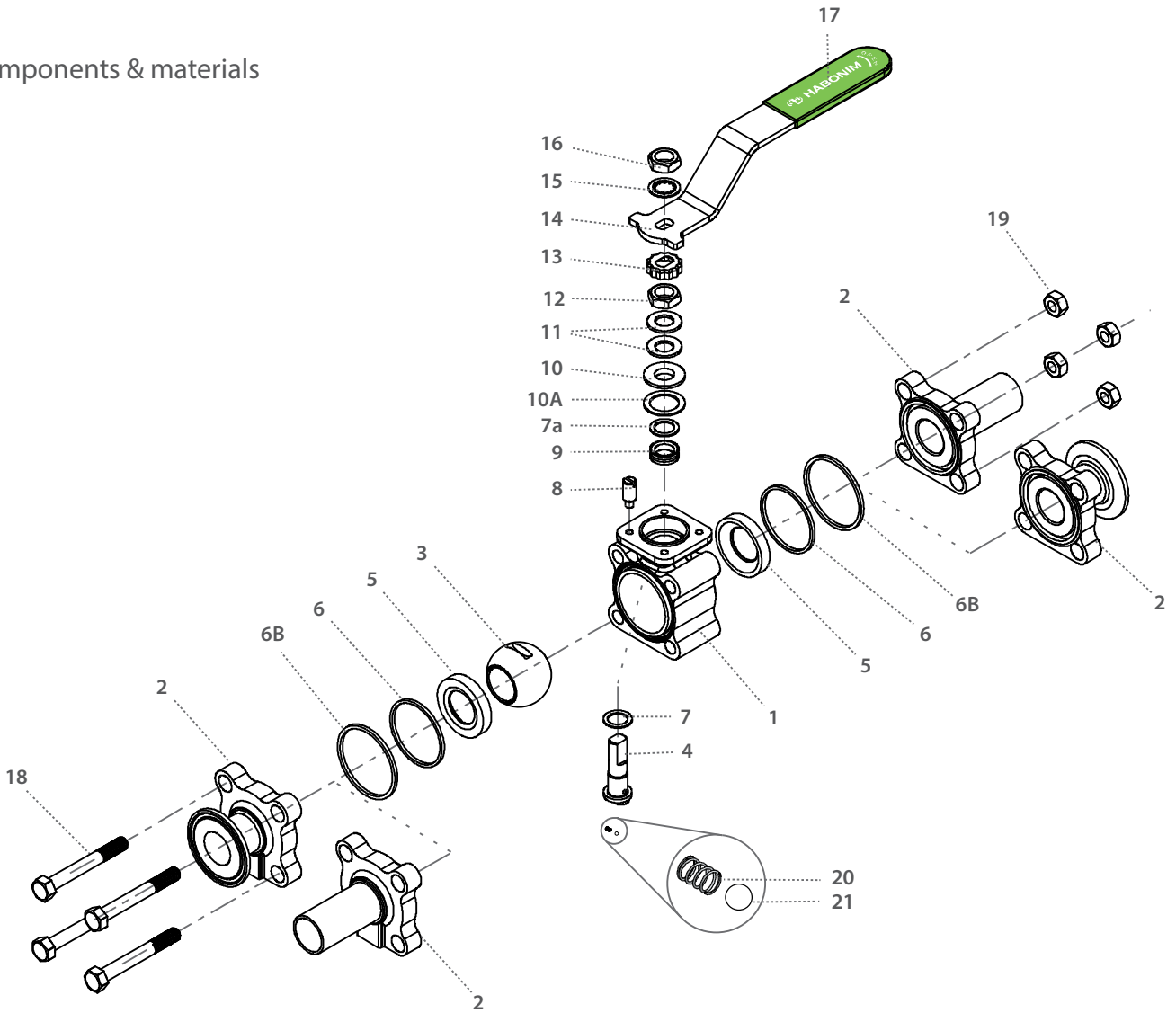
Valve dimensions



TuBore™ size	Unit	OD	ID	A ETO	A TC	B	C	D	H	K	S	W	RTC	M	N	P	F	TxL	Weight kg/lb	Kv Cv
DN15	mm	12.70	9.40	137.00	89.00	20.60	29.00	38.00	61.60	41.50	150.00	45.75	25.20	5.54	3/8"	6.65 (F03)	36.00	M5X10	0.90	8
1/2"	inch	0.50	0.37	5.39	3.50	0.81	1.14	1.50	2.42	1.63	5.91	1.80	0.99	0.22	UNF	0.26	1.42	M5X10	2.00	9
DN20	mm	19.05	15.75	147.00	102.00	24.60	36.00	45.00	67.90	43.90	150.00	52.10	25.20	5.54	3/8"	6.65 (F03)	36.00	M5X10	1.00	29
3/4"	inch	0.75	0.62	5.79	4.00	0.97	1.42	1.77	2.67	1.73	5.91	2.05	0.99	0.22	UNF	0.26	1.42	M5X10	2.10	34
DN25	mm	25.40	22.10	168.00	118.00	35.50	43.50	61.00	84.80	43.90	187.00	60.45	50.40	7.54	7/16"	7.40 (F04)	42.00	M5X10	1.70	53
1"	inch	1.00	0.87	6.61	4.65	1.40	1.71	2.41	3.34	1.73	7.36	2.38	1.98	0.30	UNF	0.29	1.65	M5X10	3.80	62
DN40	mm	38.10	34.80	186.00	141.00	50.00	55.50	85.00	107.10	44.00	236.00	79.15	50.40	8.71	1/16"	8.50 (F05)	50.00	M6X12	3.50	150
1 1/2"	inch	1.50	1.37	7.31	5.57	1.97	2.19	3.35	4.22	1.73	9.29	3.12	1.98	0.34	UNF	0.33	1.97	M6X12	7.70	175



Components & materials



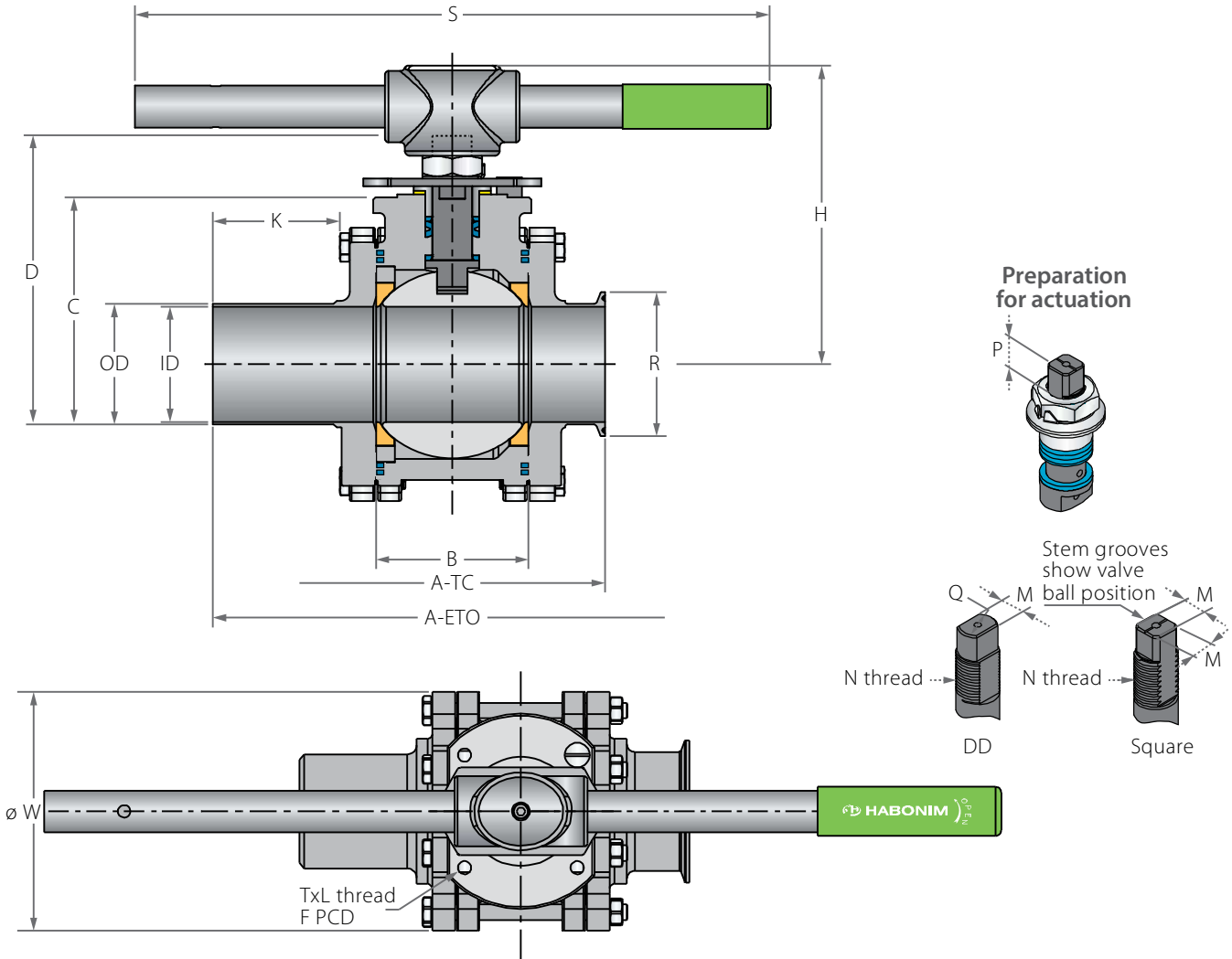
Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	Ends	Acc. Ordering Code	2
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	2
6*	Body inner seal	PTFE	2
6B*	Body outer seal	Acc. Ordering Code	2
7*	Stem thrust seal	Virgin PEEK	1
7a*	Anti-abrasion ring	Virgin PEEK	1
8	Stop pin	S. Steel	1
9*	Stem seal	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	4
19	Body nut	S. Steel	4
20	Anti-static spring	S. Steel	1
21	Anti-static plunger	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Repair kit components

ASME BPE Floating Ball 3 Piece

Valve dimensions

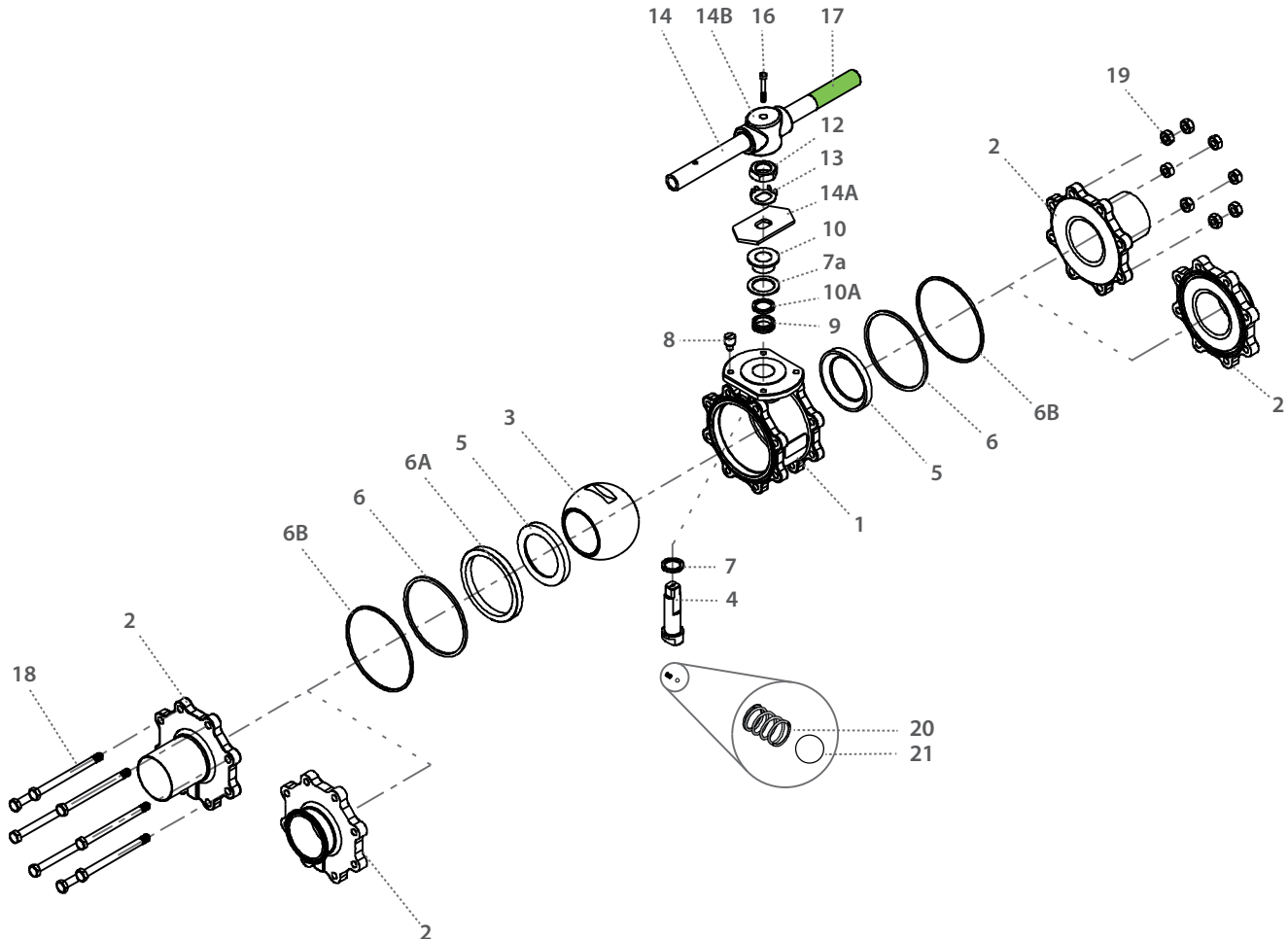


TuBore™ size	Unit	OD	ID	A ETO	A TC	B	C	D	H	K	S	W	RTC	M	M-DD	N	P	F	TxL	Weight kg/lb	Kv Cv
DN50	mm	50.80	47.50	223.00	184.00	72.70	70.00	112.10	143.10	45.00	256.00	108.00	64.20	-	13.90	M20x2.5	14.60 (F07)	70.00	M8X12	9.40	410
2"	inch	2.00	1.87	8.77	7.23	2.86	2.76	4.41	5.63	1.77	10.08	4.25	2.53	-	0.55	M20x2.5	0.57	2.76	M8X12	20.80	480
DN65	mm	63.50	60.20	250.40	169.10	83.35	98.30	144.90	185.10	57.20	401.00	153.10	77.40	18.90	15.90	1"-14	16.70 (F10)	102.00	M10X20	13.70	581
2½"	inch	2.50	2.37	10.00	6.66	3.28	3.87	5.70	7.29	2.25	15.79	6.03	3.05	0.74	0.63	UNS-2A	0.66	4.02	M10X20	30.30	680
DN80	mm	76.20	72.90	302.00	193.00	96.40	105.50	152.20	192.40	70.00	401.00	172.80	90.90	18.90	15.90	1"-14	16.70 (F10)	102.00	M10X20	17.70	748
3"	inch	3.00	2.87	11.90	7.60	3.80	4.15	5.99	7.57	2.75	15.79	6.80	3.58	0.74	0.63	UNS-2A	0.66	4.02	M10X20	39.10	875
DN100	mm	101.60	97.38	317.50	236.20	123.00	124.00	170.60	210.80	61.00	619.00	216.80	118.90	18.90	15.90	1"-14	16.70 (F10)	102.00	M10X20	31.30	1333
4"	inch	4.00	3.83	12.50	9.30	4.84	4.88	6.71	8.30	2.40	24.37	8.54	4.68	0.74	0.63	UNS-2A	0.66	4.02	M10X20	69.20	1560
DN150	mm	152.40	146.86	460.00	328.00	180.00	179.00	248.50	303.00	82.00	916.50	326.80	166.50	28.45	23.75	1½"-12	26.20 (F12)	125.00	M12x20	78.00	3218
6"	inch	6.00	5.78	18.11	12.91	7.09	7.05	9.78	11.93	3.23	36.08	12.87	6.56	1.12	0.94	UNF-1A	1.03	4.92	M12x20	172.00	3765



ASME BPE Floating Ball 3 Piece

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	Ends	Acc. Ordering Code	2
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	2
6*	Body seal	PTFE	2
6A	Support ring	S. Steel	1
6B*	Body outer seal	Acc. Ordering Code	2
7*	Stem thrust seal	Virgin PEEK	1
7a*	Anti-abrasion ring	Virgin PEEK	1
8	Stop pin	S. Steel	1
9*	Stem seal	TFM	1
10	Follower	S. Steel	1
10A*	Slide bearing	S. Steel	1

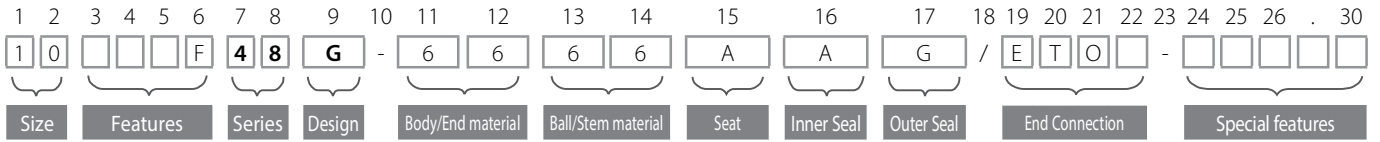
Item	Description	Material specification	Qty.
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
13	Tab lock washer	S. Steel	1
14	Handle	S. Steel	1
14A	Stop plate	S. Steel	1
14B	Wrench head	S. Steel	1
16	Wrench bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body bolt	S. Steel	8-12
19	Body nut	S. Steel	8-12
20	Anti-static spring	S. Steel	1
21	Anti-static plunger	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Repair kit components



ASME BPE Floating Ball 3 Piece - Ordering Code System

"Mandatory option" options are marked with **green background** light green background



Size (1-2)		
Code	inch	mm
02	1/4"	8
03	3/8"	10
05	1/2"	15
07	3/4"	20
10	1"	25
12	1 1/4"	32
15	1 1/2"	40
20	2"	50
25	2 1/2"	65
30	3"	80
40	4"	100
60	6"	150

Features (3-6)	
F	Fire Safe
D	Diverter, Bottom entry
S	Diverter, Side entry
Q	
Series (7-8)	
48	ASME BPE Clean valves
Design (9)	
G	Total HermetiX Integrity package - FDA compliant
Body/Ends material (11-12)	
6	CF3M
P	S. St. 316L Forged
3	S. St. EN10222-5 Forged
W	ALLOY-C22

Ball material (13)	
6	ASTM A479 S. Steel316L
W	ALLOY-C22
Stem material (14)	
6	ASTM A479 S. Steel316L
W	ALLOY-C22
Seat material (15)	
A	TFM
L	Virgin PEEK
Inner Seal Material (16)	
A	TFM
Outer Seal Material (17)	
G	Expanded graphite
A	TFM

End connections (19-23)	
Welded	
ETO	Extended tube OD
Clamp	
TC	Tri-Clamp
Special Features (24-30)	
G32	ASME BPE surface designation SF1 - Internal polishing level of 0.51 μ-m, 20 μ-in Ra max.
E24	ASME BPE surface designation SF5 - Internal polishing & EP level of 0.51 μ-m, 20 μ-in Ra max.
E32	ASME BPE surface designation SF4 - Internal polishing & EP level of 0.38 μ-m, 15 μ-in Ra max.
B	Valve made from rolled bar

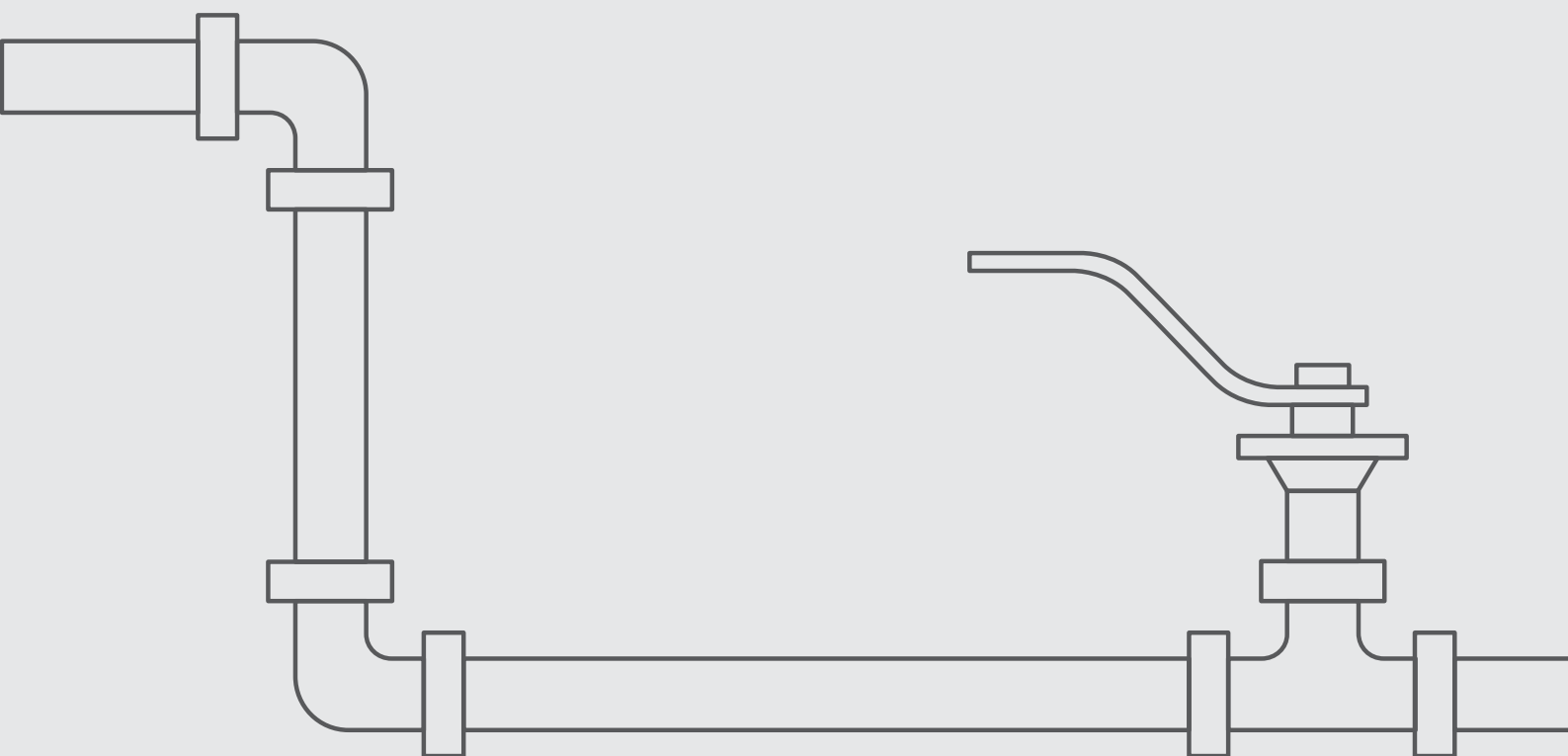
Y47



Sanitary Valves

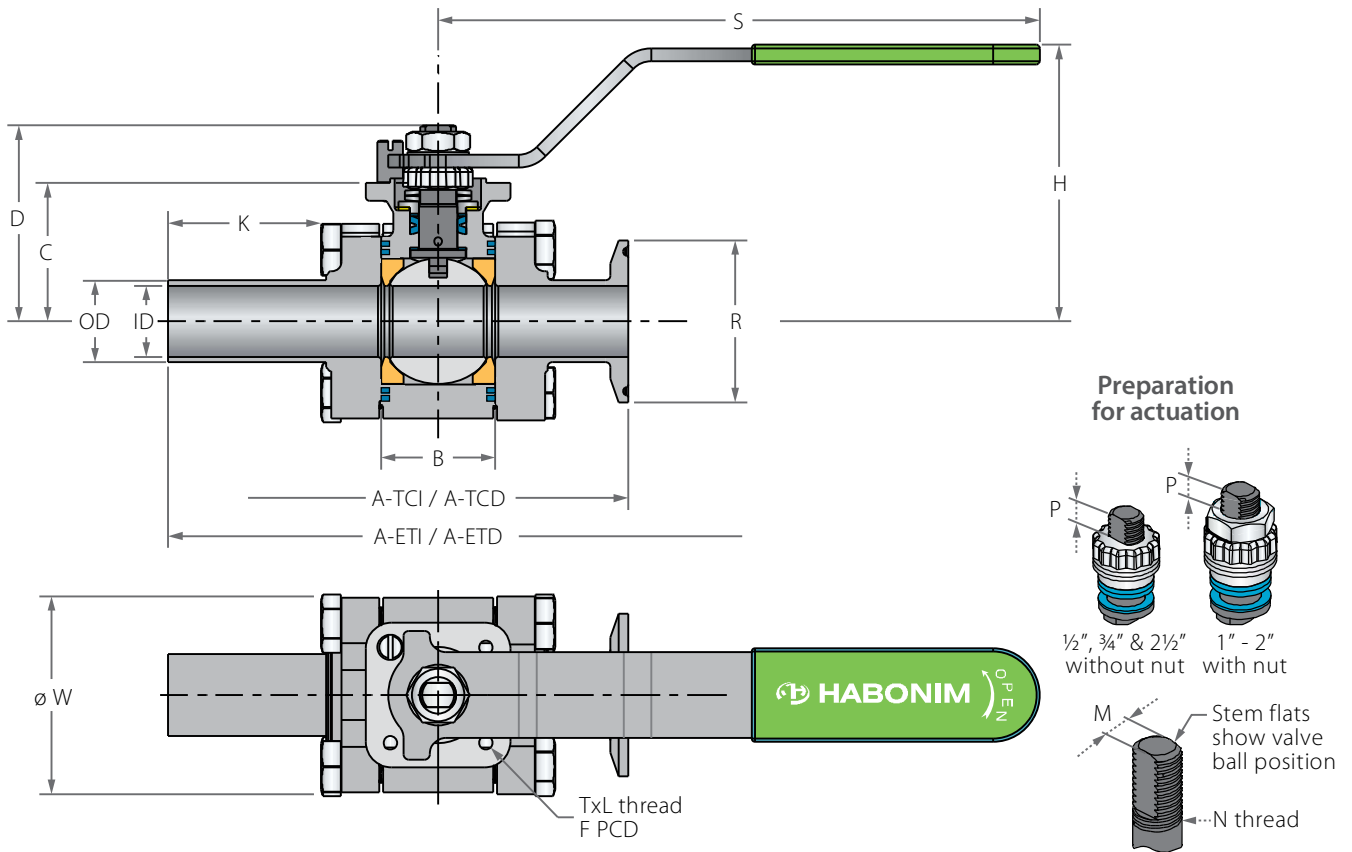
FLOATING BALL

3 PIECE



ISO 1127 / DIN 11850 Floating Ball 3 Piece

Valve dimensions



ISO 1127 Tube Sized

Std. port	Unit	Ball port	Pipe ID	Pipe OD	A ETI	A TCI	B	C	D	H	S	W	M	N	P	F	TxL	Weight kg/lb	Kv Cv
DN10	mm	14.30	14.00	17.20	146.50	101.50	24.50	31.40	40.30	63.90	150.00	53.70	5.54	3/8 UNF	6.65 (F03)	36.00	M5X10	0.80	10
3/8"	inch	0.56	0.55	0.68	5.76	3.99	0.97	1.24	1.59	2.52	5.91	2.11	0.22		0.26	1.42		1.77	12
DN15	mm	15.75	18.10	21.30	146.60	102.00	24.60	36.00	45.00	67.90	150.00	52.10	5.54	3/8 UNF	6.65 (F03)	36.00	M5X10	1.00	29
1/2"	inch	0.62	0.71	0.84	5.77	4.00	0.97	1.42	1.77	2.67	5.91	2.05	0.22		0.26	1.42		2.10	34
DN20	mm	22.10	23.70	26.90	167.8	118.00	35.50	43.50	61.00	84.80	187.00	60.45	7.54	3/8 UNF	7.40 (F04)	42.00	M5X10	1.70	53
3/4"	inch	0.87	0.93	1.06	6.60	4.65	1.40	1.71	2.41	3.34	7.36	2.38	0.30		0.29	1.65		3.80	62
DN25	mm	25.40	29.70	33.70	179.30	133.70	41.30	42.70	60.20	84.10	187.00	71.70	7.54	7/16 UNF	7.40 (F04)	42.00	M5X10	2.50	49
1"	inch	1.00	1.17	1.33	7.05	5.26	1.62	1.68	2.37	3.31	7.36	2.82	0.30		0.29	1.65		5.53	57
DN32	mm	38.10	38.40	42.40	200.30	158.90	56.30	48.30	77.80	101.80	237.00	96.90	8.71	7/16 UNF	8.50 (F05)	50.00	M6X12	4.50	102
1 1/4"	inch	1.50	1.51	1.67	7.88	6.25	2.22	1.90	3.06	4.01	9.33	3.82	0.34		0.33	1.97		9.95	118
DN40	mm	38.10	44.30	48.30	200.30	158.90	56.30	48.30	77.80	101.80	237.00	96.90	8.71	9/16 UNF	8.50 (F05)	50.00	M6X12	4.50	102
1 1/2"	inch	1.50	1.74	1.90	7.88	6.25	2.22	1.90	3.06	4.01	9.33	3.82	0.34		0.33	1.97		9.95	118
DN50	mm	50.80	56.30	60.30	232.60	213.00	72.60	70.00	88.10	115.10	237.00	108.00	8.71	9/16 UNF	13.50 (F07)	70.00	M8X12	9.50	208
2"	inch	2.00	2.22	2.37	9.15	8.38	2.86	2.76	3.47	4.53	9.33	4.25	0.34		0.53	2.76		21.00	241

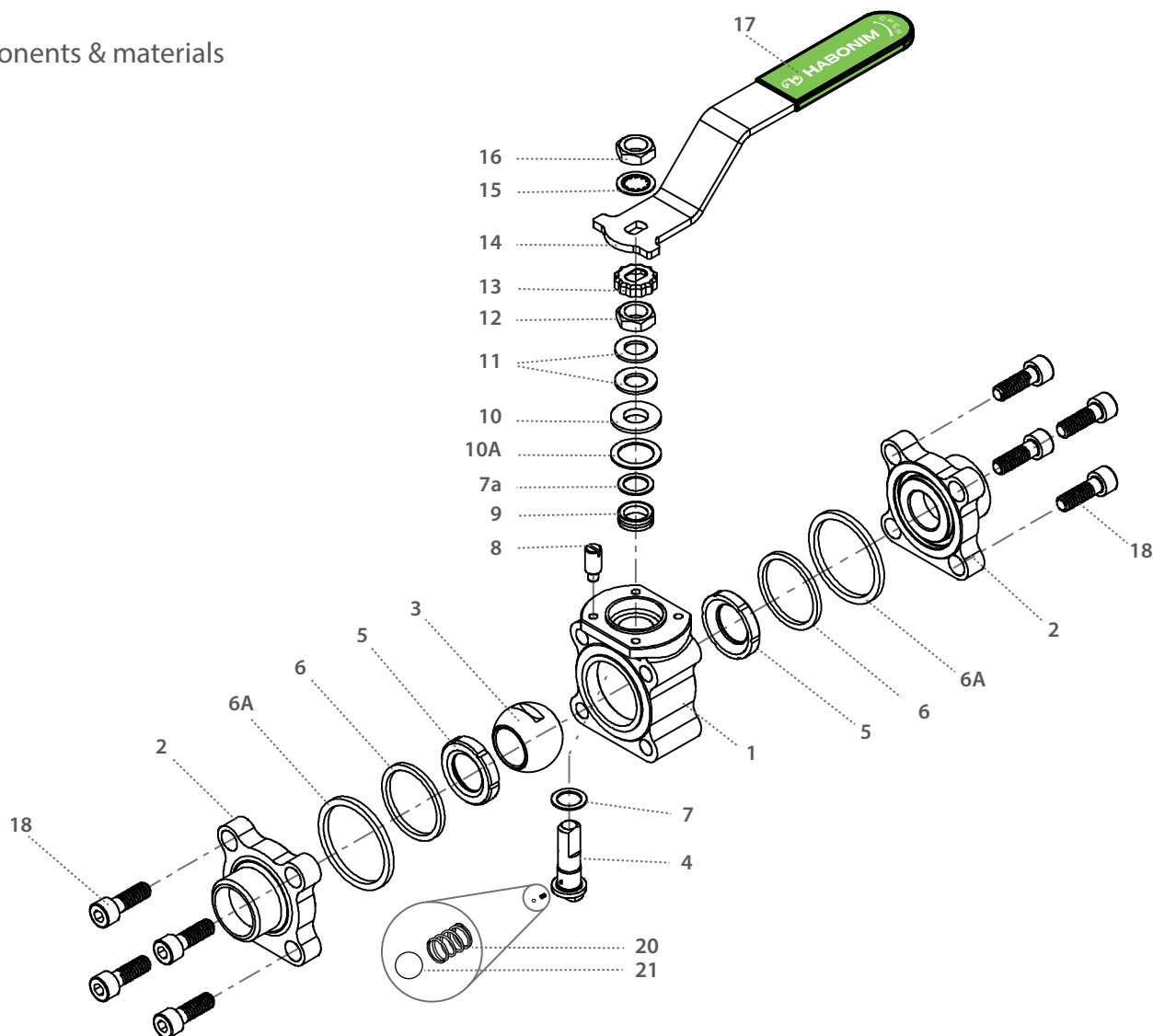
DIN 11850 Tube Sized

Std. port	Unit	Ball port	Pipe ID	Pipe OD	A ETD	A TCD	B	C	D	H	S	W	M	N	P	F	TxL	Weight kg/lb	Kv Cv
DN10	mm	11.15	10.00	13.00	140.60	88.80	20.60	29.00	37.9	61.50	150.00	47.00	5.54	3/8 UNF	6.65 (F03)	36.00	M5X10	0.60	2.6
3/8"	inch	0.44	0.39	0.51	5.53	6.49	0.81	1.14	1.49	2.42	5.91	1.85	0.22		0.26	1.42		1.33	3.0
DN15	mm	15.75	16.00	19.00	146.60	102.00	24.60	36.00	45.00	67.90	150.00	52.10	5.54	3/8 UNF	6.65 (F03)	36.00	M5X10	1.00	29
1/2"	inch	0.62	0.63	0.75	5.77	4.00	0.97	1.42	1.77	2.67	5.91	2.05	0.22		0.26	1.42		2.10	34
DN20	mm	20.60	20.00	23.00	164.10	114.30	31.70	38.10	55.60	79.40	187.00	63.70	7.54	3/8 UNF	7.40 (F04)	42.00	M5X10	1.60	28
3/4"	inch	0.81	0.79	0.91	6.46	45.00	1.25	1.50	2.19	3.13	7.36	2.51	0.30		0.29	1.65		3.54	32
DN25	mm	25.40	26.00	29.00	179.30	133.70	41.30	42.70	60.20	84.10	187.00	71.70	7.54	7/16 UNF	7.40 (F04)	42.00	M5X10	2.50	49
1"	inch	1.00	1.02	1.14	7.05	5.26	1.62	1.68	2.37	3.31	7.36	2.82	0.30		0.29	1.65		5.53	57
DN32	mm	31.80	32.00	35.00	189.40	139.70	48.40	43.60	73.00	97.00	237.00	86.70	8.71	7/16 UNF	8.50 (F05)	50.00	M6X12	3.60	69
1 1/4"	inch	1.25	1.26	1.38	7.45	5.50	1.91	1.72	2.87	3.82	9.33	3.41	0.34		0.33	1.97		7.96	80
DN40	mm	38.10	38.00	41.00	200.30	158.90	56.30	48.30	77.80	101.80	237.00	96.90	8.71	9/16 UNF	8.50 (F05)	50.00	M6X12	4.50	102
1 1/2"	inch	1.50	1.50	1.61	7.88	6.25	2.22	1.90	3.06	4.01	9.33	3.82	0.34		0.33	1.97		9.95	118
DN50	mm	50.80	50.00	53.00	232.60	213.00	72.60	70.00	88.10	115.10	237.00	108.00	8.71	9/16 UNF	13.50 (F07)	70.00	M8X12	9.50	208
2"	inch	2.00	1.97	2.09	9.15	8.38	2.86	2.76	3.47	4.53	9.33	4.25	0.34		0.53	2.76		21.00	241



ISO 1127 / DIN 11850 Floating Ball 3 Piece

Components & materials



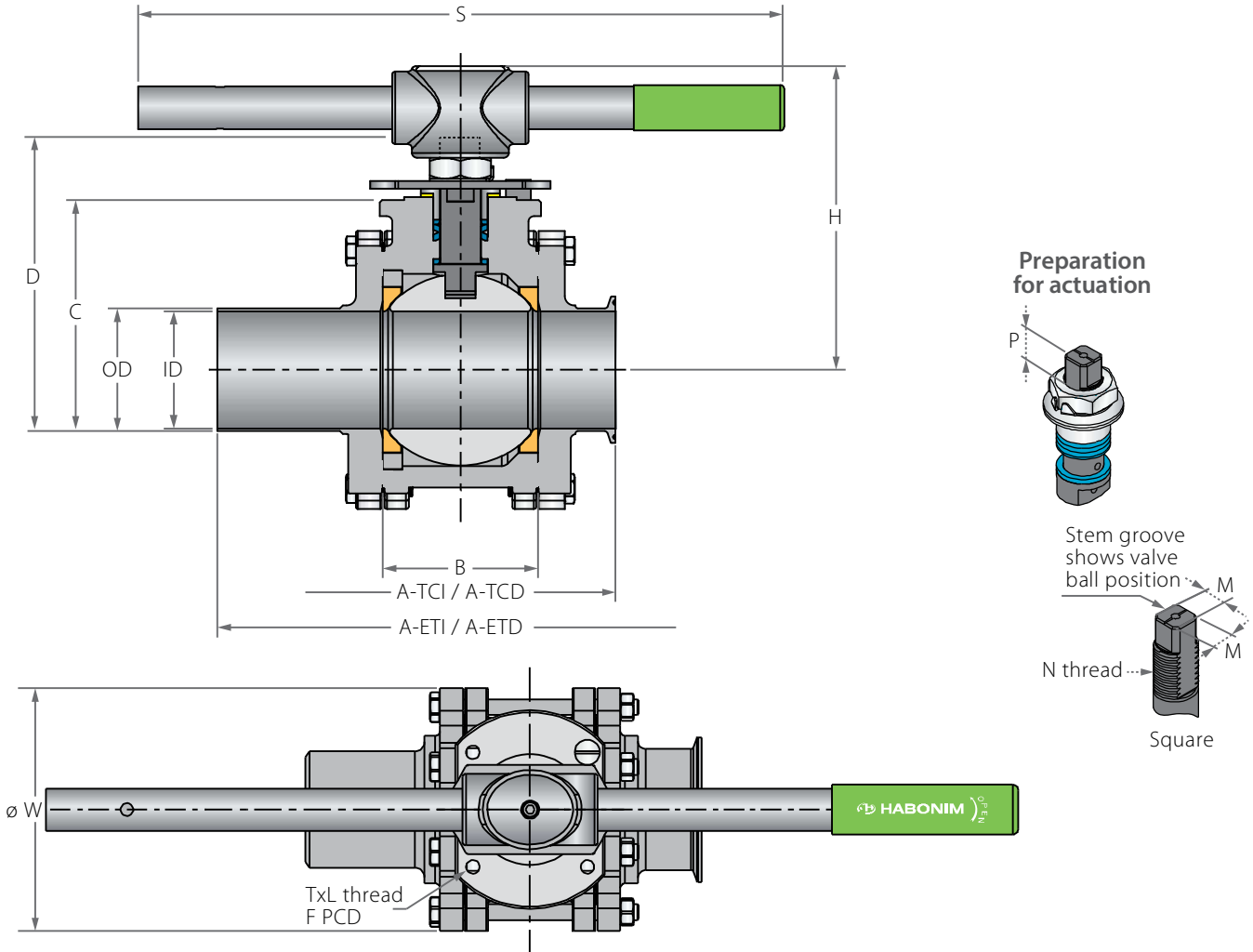
Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	Ends	Acc. Ordering Code	2
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	2
6*	Inner seal	PTFE	2
6A*	Outer seal	Acc. Ordering Code	2
7*	Stem thrust seal	VIRGIN PEEK, PCTFE	1
7a*	Anti-abrasion ring	VIRGIN 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 bolt	S. Steel	8
20	Anti-static spring	S. Steel	1
21	Anti-static plunger	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Repair kit components

ISO 1127 / DIN 11850 Floating Ball 3 Piece

Valve dimensions



ISO 1127 Tube Sized

Std. port	Unit	Ball port	Pipe ID	Pipe OD	A ETI	A TCI	B	C	D	H	S	W	M	M-DD	N	P	Q	F	TxL	Weight kg/lb	Kv Cv	
DN65	mm	63.50	72.10	76.10	283.40	215.80	83.30	98.30	144.90	185.00	400.00	140.00	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10X20	13.70 / 300	300 / 348
2½"	inch	2.50	2.84	3.00	11.57	8.49	3.28	3.87	5.71	7.29	15.75	5.50	0.74	0.63	UNS-2A	0.66	0.89		4.02	M10X20	30.30 / 66.30	348 / 713
DN80	mm	82.60	84.30	88.90	319.80	245.40	108.80	114.10	160.70	200.00	600.00	177.00	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10X20	23.70 / 52.40	615 / 713
3"	inch	3.25	3.32	3.50	12.59	9.66	4.28	4.49	6.33	7.89	23.62	6.97	0.74	0.63	UNS-2A	0.66	0.89		4.02	M10X20	52.40 / 66.30	713 / 863
DN100	mm	100.00	109.70	114.30	390.00	268.80	123.00	124.00	170.50	211.00	600.00	217.00	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10X20	30.00 / 66.30	744 / 863
4"	inch	3.94	4.32	4.50	15.35	10.58	4.84	4.88	6.71	8.30	23.62	8.54	0.74	0.63	UNS-2A	0.66	0.89		4.02	M10X20	66.30 / 863	863 / 863

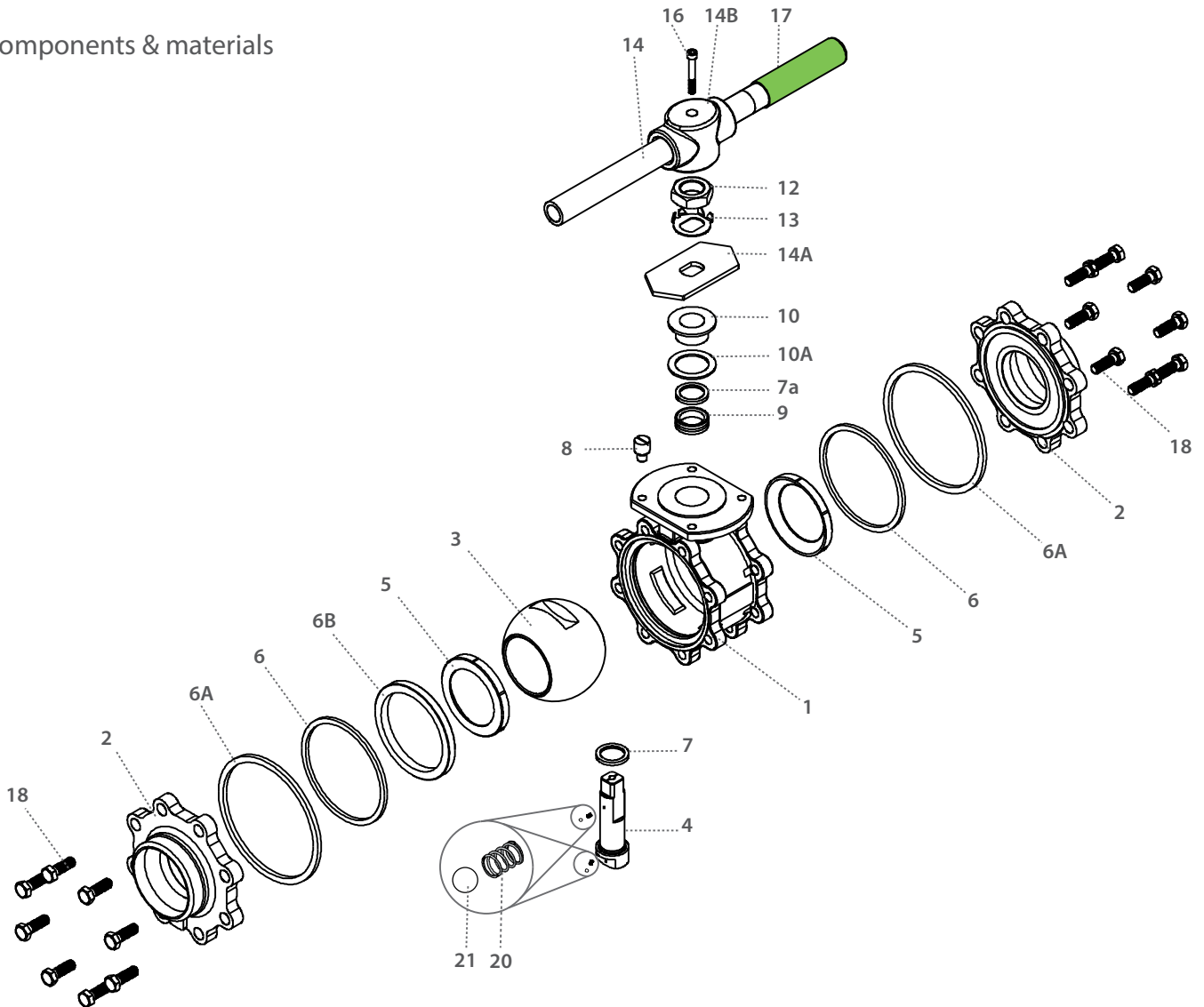
DIN 11850 Tube Sized

Std. port	Unit	Ball port	Pipe ID	Pipe OD	A ETDA	A TCD	B	C	D	H	S	W	M	M-DD	N	P	Q	F	TxL	Weight kg/lb	Kv Cv	
DN65	mm	63.50	66.00	70.00	283.40	215.80	83.30	98.30	144.90	185.00	400.00	140.00	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10X20	13.70 / 300	300 / 348
2½"	inch	2.50	2.60	2.76	11.57	8.49	3.28	3.87	5.71	7.29	15.75	5.50	0.74	0.63	UNS-2A	0.66	0.89		4.02	M10X20	30.30 / 66.30	348 / 713
DN80	mm	82.60	81.00	85.00	348.80	245.40	108.80	114.10	160.70	200.00	600.00	177.00	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10X20	23.70 / 52.40	615 / 713
3"	inch	3.25	3.19	3.35	13.73	9.66	4.28	4.49	6.33	7.89	23.62	6.97	0.74	0.63	UNS-2A	0.66	0.89		4.02	M10X20	52.40 / 66.30	713 / 863
DN100	mm	100.00	100.00	104.00	390.00	268.80	123.00	124.00	170.50	211.00	600.00	217.00	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10X20	30.00 / 66.30	744 / 863
4"	inch	3.94	3.94	4.09	15.35	10.58	4.84	4.88	6.71	8.30	23.62	8.54	0.74	0.63	UNS-2A	0.66	0.89		4.02	M10X20	66.30 / 863	863 / 863



ISO 1127 / DIN 11850 Floating Ball 3 Piece

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	Ends	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	PTFE	2
6A*	Outer seal	Acc. Ordering Code	2
6B	Support ring	S. Steel	1
7*	Stem thrust seal	VIRGIN PEEK, PCTFE	1
7a*	Anti-abrasion ring	VIRGIN 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

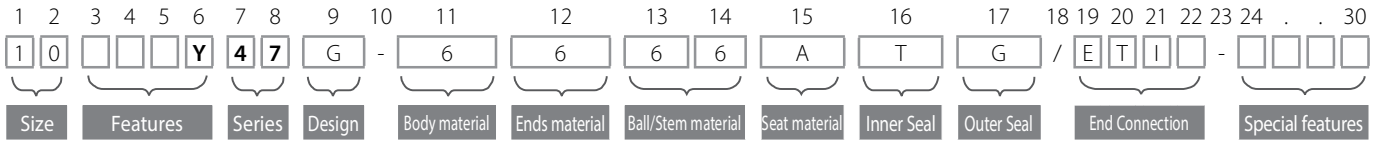
Item	Description	Material specification	Qty.
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
13	Tab lock washer	S. Steel	1
14	Handle	S. Steel	1
14A	Stop plate	S. Steel	1
14B	Wrench head	S. Steel	1
16	Wrench bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body bolts	S. Steel	8-12
20	Anti-static spring	S. Steel	2
21	Anti-static plunger	S. Steel	2
23	Tag (not shown)	S. Steel	1

* Repair kit components



Floating Ball 3 Piece - Ordering Code System

"Mandatory option" options are marked with **green background** light green background



Size (1-2)		
Code	inch	mm
03	3/8"	10
05	1/2"	15
07	3/4"	20
10	1"	25
12	1 1/4"	32
15	1 1/2"	40
20	2"	50
25	2 1/2"	65
30	3"	80
40	4"	100

Features (3-6)	
Y	Tube Sized port
F	Fire safe
O	Oxygen service
V	Vacuum service
Q	
I	High purity Class 10000

Series (7-8)	
47	Floating ball 3 piece

Design (9)	
W	Total HermetiX Integrity package
G	Total HermetiX Integrity package - FDA compliant

Body material (11)	
6	S. SteelCF8M/CF3M
W	Hasteloy-C22

Ends material (12)	
6	S. SteelCF8M/CF3M
W	Hasteloy-C22

Stem material (14)	
6	S. Steel316L
M	High Strength S. Steel
W	Alloy-C22 B574

Seat material (15)	
A	TFM
L	Virgin Peek

Inner Seal Material (16)	
T	PTFE

Outer Seal material (17)	
A	TFM
G	Expanded graphite

End Connection (19-22)	
Welded	
ETI	Extended buttweld ISO 1127
ETD	Extended buttweld DIN 11850

Clamp	
TCI	Tri-Clamp for ISO 1127
TCD	Tri-Clamp for DIN 11850

Special Features (24-30)	
P250	Ball with Upstream Relief Hole
SRS	Self Relief Seat
B	Body made from bar stock
EP	Electropolished
J2N05	Jacketed valve - number of ports(2), type(NPT) and size(1/2")

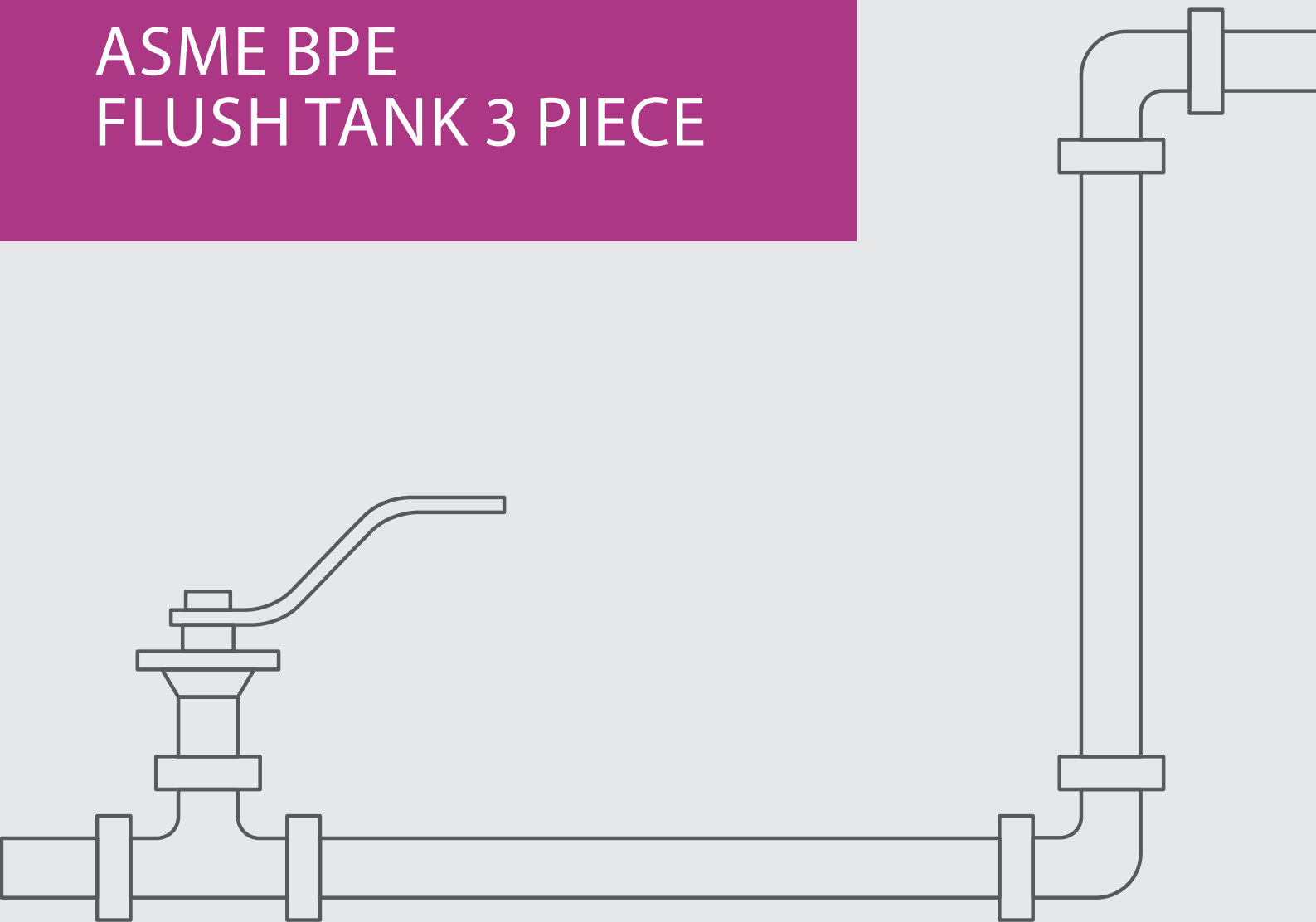
R48



Sanitary Valves

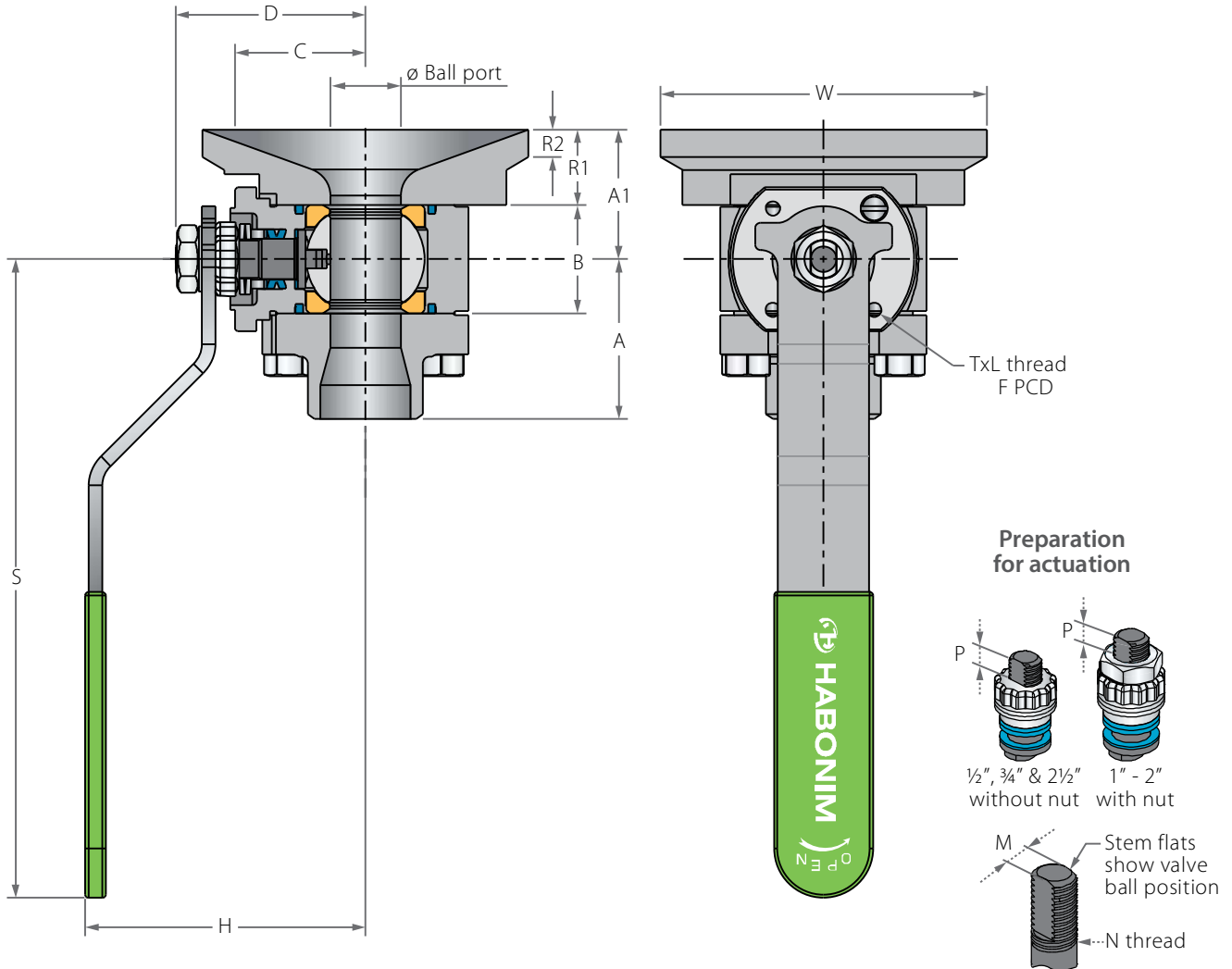
FLOATING BALL

ASME BPE
FLUSH TANK 3 PIECE



ASME BPE Flush Tank Floating Ball

Valve dimensions

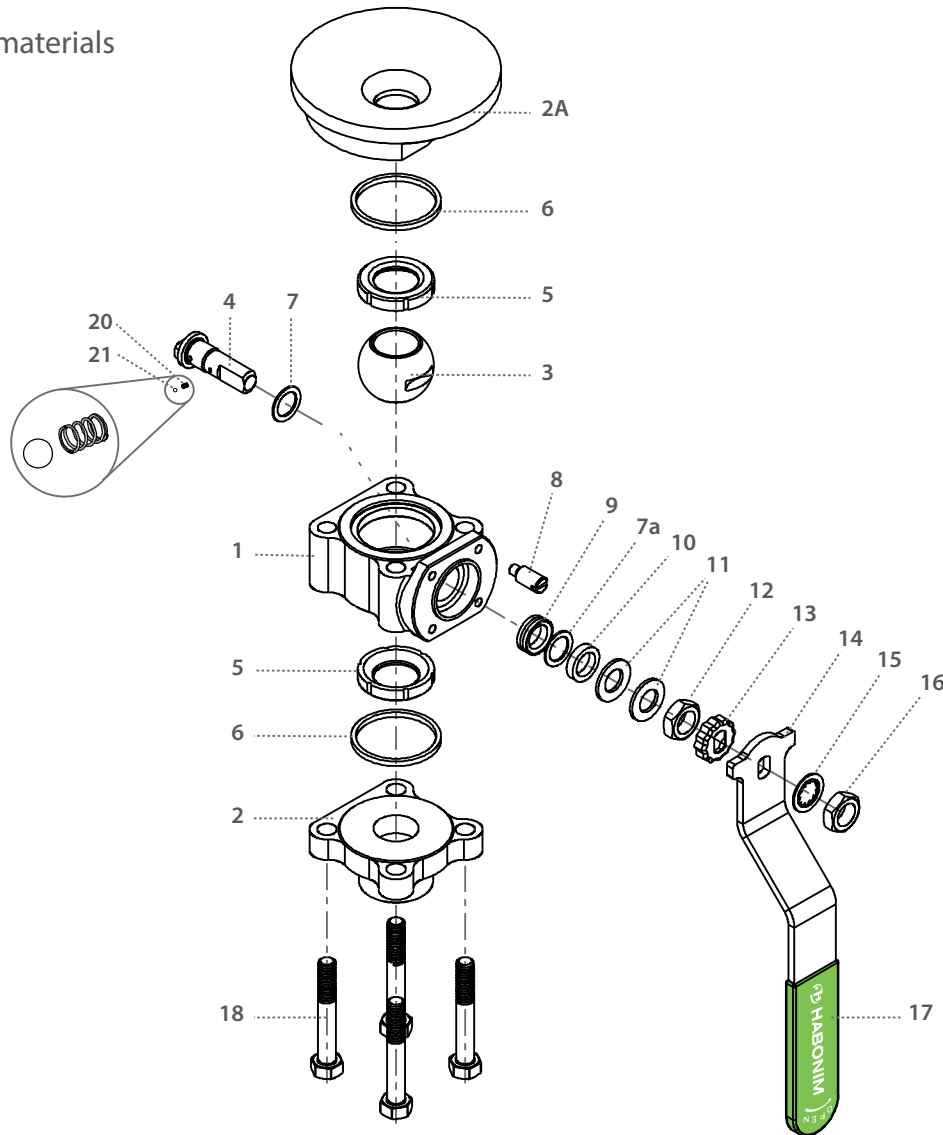


Std. port	Full port	Unit	Ball port	R1	R2	A	A1	B	C	D	H	S	W	M	N	P	F	TxL	Weight kg/lb	Kv Cv
DN15	DN10	mm	11.15	21.00	6.00	33.00	31.30	20.60	29.00	38.70	61.50	150.00	60.00	16.00	3/8	6.65 (F03)	36.00	M5X10	0.8 / 6.9	
1/2"	3/8"	inch	0.44	0.83	0.24	1.30	1.24	0.81	1.14	1.52	2.42	5.91	2.36	0.63	UNF	0.26	1.42		1.9 / 8.0	
DN20	DN15	mm	14.30	20.60	6.00	35.30	32.85	24.50	31.40	40.30	63.90	150.00	80.00	5.54	3/8	6.65 (F03)	36.00	M5X10	1.2 / 10	
3/4"	1/2"	inch	0.56	0.81	0.24	1.39	1.29	0.97	1.24	1.59	2.52	5.91	3.15	0.22	UNF	0.26	1.42		2.6 / 12	
DN25	DN20	mm	20.60	21.50	8.00	46.90	37.35	31.70	38.20	55.60	79.40	187.00	95.50	7.54	1/2	7.40 (F04)	42.00	M5X10	2.1 / 28	
1"	3/4"	inch	0.81	0.85	0.31	1.85	1.47	1.25	1.50	2.19	3.13	7.36	3.76	0.30	UNF	0.29	1.65		4.6 / 32	
DN32	DN25	mm	25.50	24.00	8.00	54.00	45.00	41.25	195.40	212.90	236.40	230.00	69.00	7.54	1/2	7.40 (F04)	42.00	M5X10	3.2 / 49	
1 1/4"	1"	inch	1.00	0.94	0.31	2.13	1.77	1.62	7.69	8.38	9.31	9.06	2.72	0.30	UNF	0.29	1.65		7.0 / 57	
DN40	DN32	mm	31.80	27.00	8.00	57.80	51.20	48.40	43.60	73.00	97.00	237.00	113.00	8.71	5/16	8.50 (F05)	50.00	M6X12	4.5 / 69	
1 1/2"	1"	inch	1.25	1.06	0.31	2.28	2.01	1.91	1.72	2.87	3.82	9.33	4.45	0.34	UNF	0.33	1.97		9.9 / 80	
DN50	DN40	mm	38.10	29.00	10.00	64.00	57.15	56.30	48.30	77.80	101.80	237.00	138.00	8.71	5/16	8.50 (F05)	50.00	M6X12	5.8 / 102	
2"	1 1/2"	inch	1.50	1.14	0.39	2.52	2.25	2.22	1.90	3.06	4.01	9.33	5.43	0.34	UNF	0.33	1.97		12.8 / 118	
DN65	DN50	mm	50.80	30.00	10.00	79.00	66.30	72.60	70.00	88.10	115.10	237.00	164.00	8.71	5/16	13.50 (F07)	70.00	M8X12	11.1 / 208	
2 1/2"	2"	inch	2.00	1.18	0.39	3.11	2.61	2.86	2.76	3.47	4.53	9.33	6.46	0.34	UNF	0.53	2.76		24.4 / 241	



ASME BPE Flush Tank Floating Ball

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	1
2A	Pad	A479 316L, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	2
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM ⁽²⁾ , CF PTFE ⁽²⁾	1
7a**	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM ⁽²⁾ , CF PTFE ⁽²⁾	1
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM, Graphite ⁽²⁾	1

Item	Description	Material specification	Qty.
10	Follower	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	Bolt	S. Steel	4
20	Anti-static spring	S. Steel	1
21	Anti-static plunger	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Repair kit components

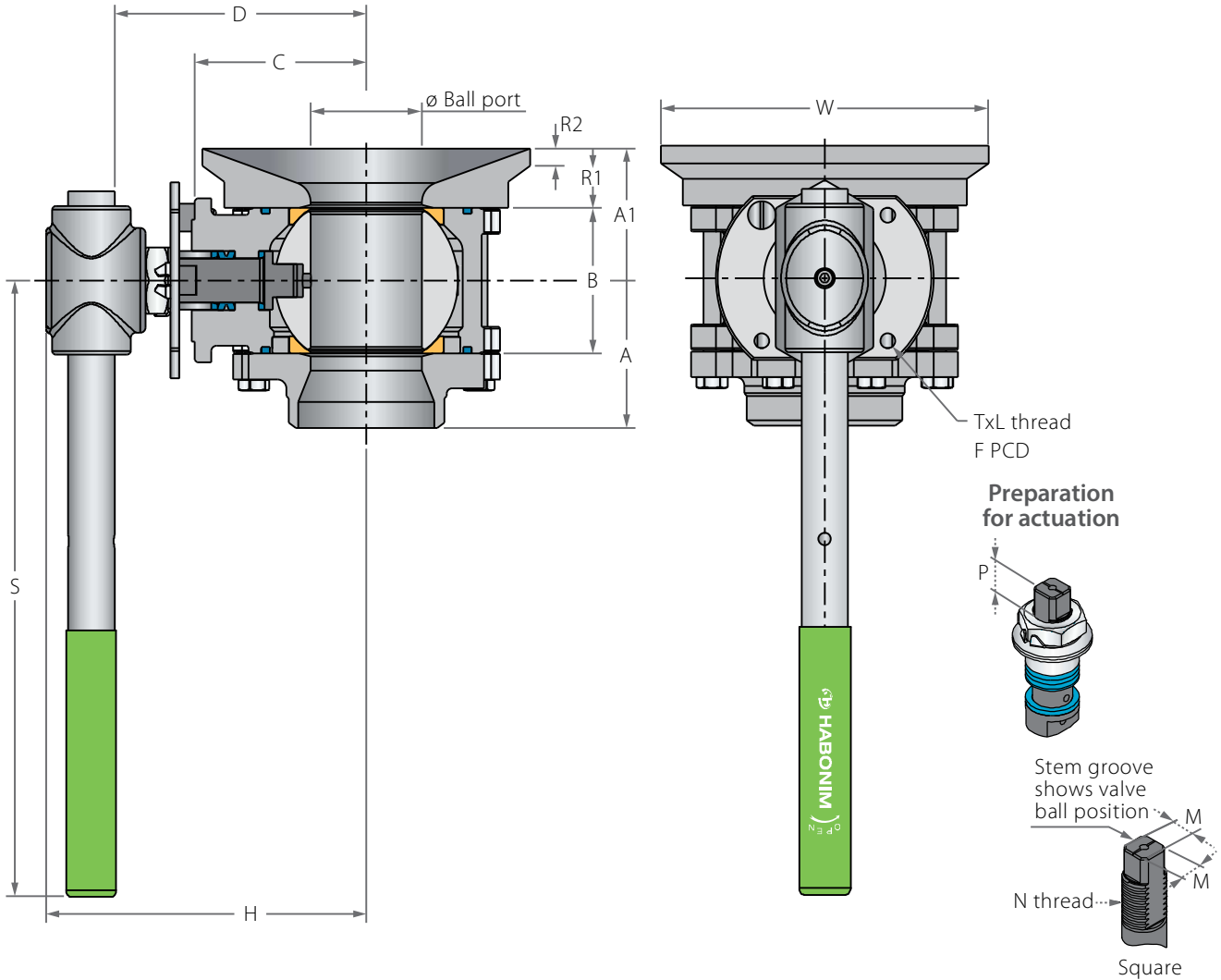
** Only with HermetiX™ stem seal

⁽¹⁾ R47P Series is Habonim's standard valve design without the HermetiX™ stem seal construction.

⁽²⁾ This material can only be used as part of the R47P design.

ASME BPE Flush Tank Valves

Valve dimensions

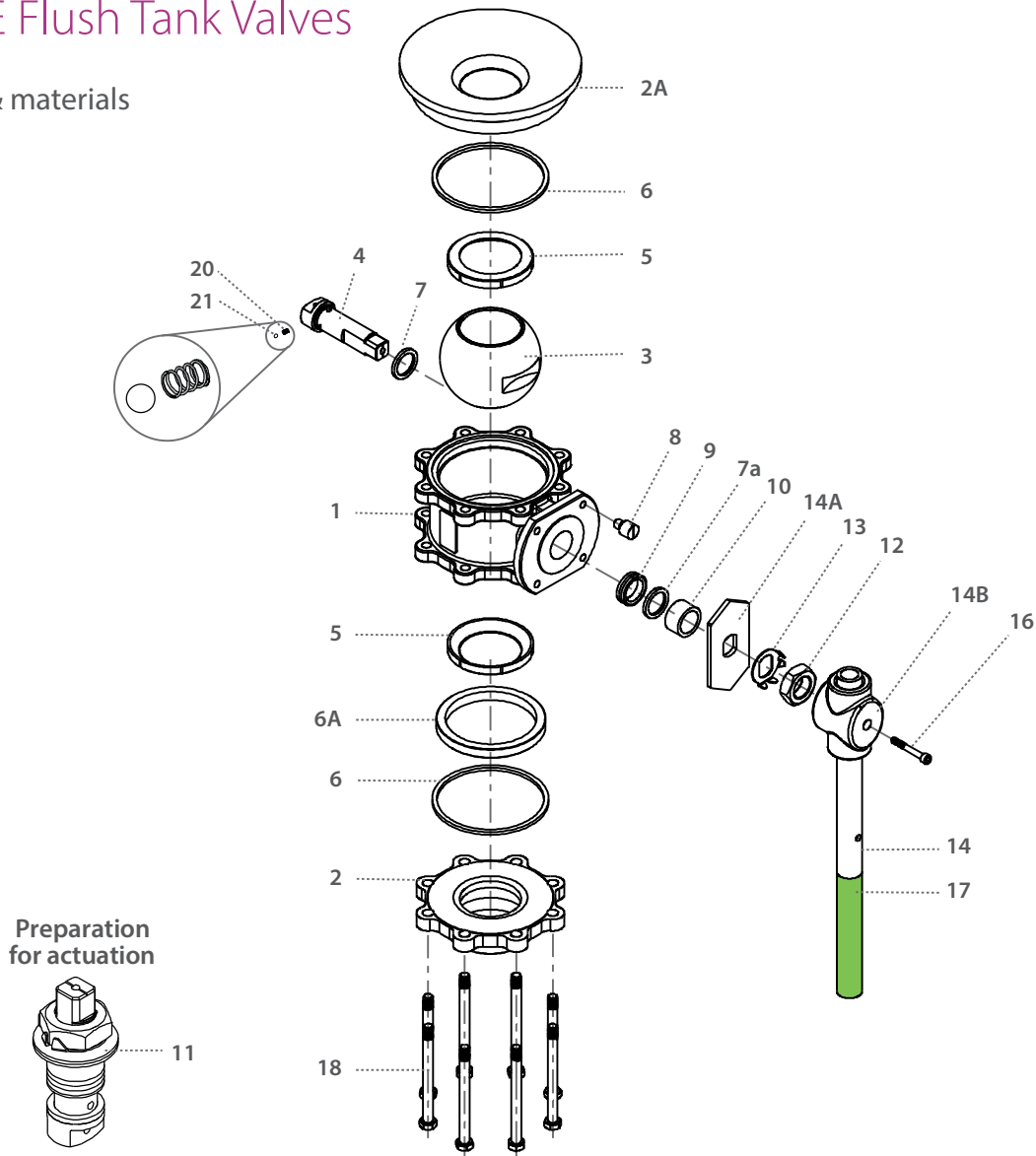


Std. port	Full port	Unit	Ball port	R1	R2	A	A1	B	C	D	H	S	W	M-DD	M	N	P	F	TxL	Weight kg/lb	Kv Cv
DN80	DN65	mm	63.50	34.00	10.00	84.50	75.65	83.30	98.30	144.90	185.00	400.00	188.00	15.90	18.90	1"-14	16.70 (F10)	102.00	M10x20	15.5	300
3"	2½"	inch	2.50	1.34	0.39	3.33	2.98	3.28	3.87	5.71	7.29	15.75	7.40	0.63	0.74	UNS-2A	0.66	4.02	M10x20	34.1	348
DN100	DN80	mm	82.60	38.00	10.00	107.00	92.40	108.80	114.10	160.70	200.00	600.00	226.00	15.90	18.90	1"-14	16.70 (F10)	102.00	M10x20	26.0	615
4"	3"	inch	3.25	1.50	0.39	4.21	3.64	4.28	4.49	6.33	7.89	23.62	6.97	0.63	0.74	UNS-2A	0.66	4.02	M10x20	57.2	713
	DN100	mm	100.00	45.00	12.00	119.50	106.50	123.00	124.00	170.50	211.00	600.00	252.00	15.90	18.90	1"-14	16.70 (F10)	102.00	M10x20	34.0	744
	4" FB	inch	3.94	1.77	0.47	4.70	4.19	4.84	4.88	6.71	8.30	23.62	8.54	0.63	0.74	UNS-2A	0.66	4.02	M10x20	74.8	863



ASME BPE Flush Tank Valves

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	1
2A	Pad	A479 316L, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	2
6A	Support Ring	S. Steel	1
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM, CF PTFE	1
7a**	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM, CF PTFE	1
8	Stop pin	S. Steel	1
9*	Stem seal	CF PTFE, TFM, Graphite	1

Item	Description	Material specification	Qty.
10	Follower	S. Steel	1
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
13	Tab lock washer	S. Steel	1
14	Wrench handle	A240 316L	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 bolts	S. Steel	6-10
20	Anti-static spring	S. Steel	2
21	Anti-static plunger	S. Steel	2
23	Tag (not shown)	S. Steel	1

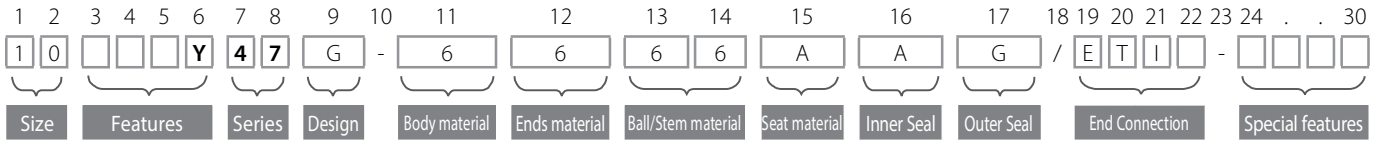
* Repair kit components

** Only with HermetiX™ gland packing



ASME BPE Floating Ball 3 Piece - Ordering Code System

"Mandatory option" options are marked with **green background** light green background



Size (1-2)		
Code	inch	mm
02	¼"	10
03	⅜"	10
05	½"	15
07	¾"	20
10	1"	25
15	1½"	40
20	2"	50
25	2½"	65
30	3"	80
40	4"	100
60	6"	150

Features (3-6)	
R	Flush tank
F	Fire Safe
D	Diverter, Bottom entry
S	Diverter, Side entry
Q	
Series (7-8)	
48	ASME BPE Clean valves
Design (9)	
G	Total HermetiX Integrity package - FDA compliant
Body/Ends material (11-12)	
6	CF3M
3	S. St. EN10222-5 Forged
P	S. St. 316L Forged
W	ALLOY-C22

Ball/Stem material (13-14)	
6	ASTM A479 S. Steel316L
W	ALLOY-C22
Seat material (15)	
A	TFM
L	Virgin Peek
Inner Seal Material (16)	
A	TFM
Outer Seal material (17)	
A	TFM
G	Expanded graphite

End Connection (19-22)	
Welded	
ETO	Extended tube OD
Clamp	
TC	Tri-Clamp
Special Features (24-30)	
G32	ASME BPE surface designation SF1 - Internal polishing level of 0.51 μ-m, 20 μ-in Ra max.
E24	ASME BPE surface designation SF5 - Internal polishing & EP level of 0.51 μ-m, 20 μ-in Ra max.
E32	ASME BPE surface designation SF4 - Internal polishing & EP level of 0.38 μ-m, 15 μ-in Ra max.
B	Valve made from rolled bar