HABONIM
Industrial Valves & Actuators

Inspired By Challenge

Flanged valves

Introduction

Habonim's rugged flanged valves provide high durability and exceptional performance even under the most extreme conditions. The Habonim line of flanged valves includes end connections that comply with ANSI B16.5 class 150 and class 300 (in both standard port and full port) and EN 1092 (DIN flanged valves) PN16 and PN40 in full port.

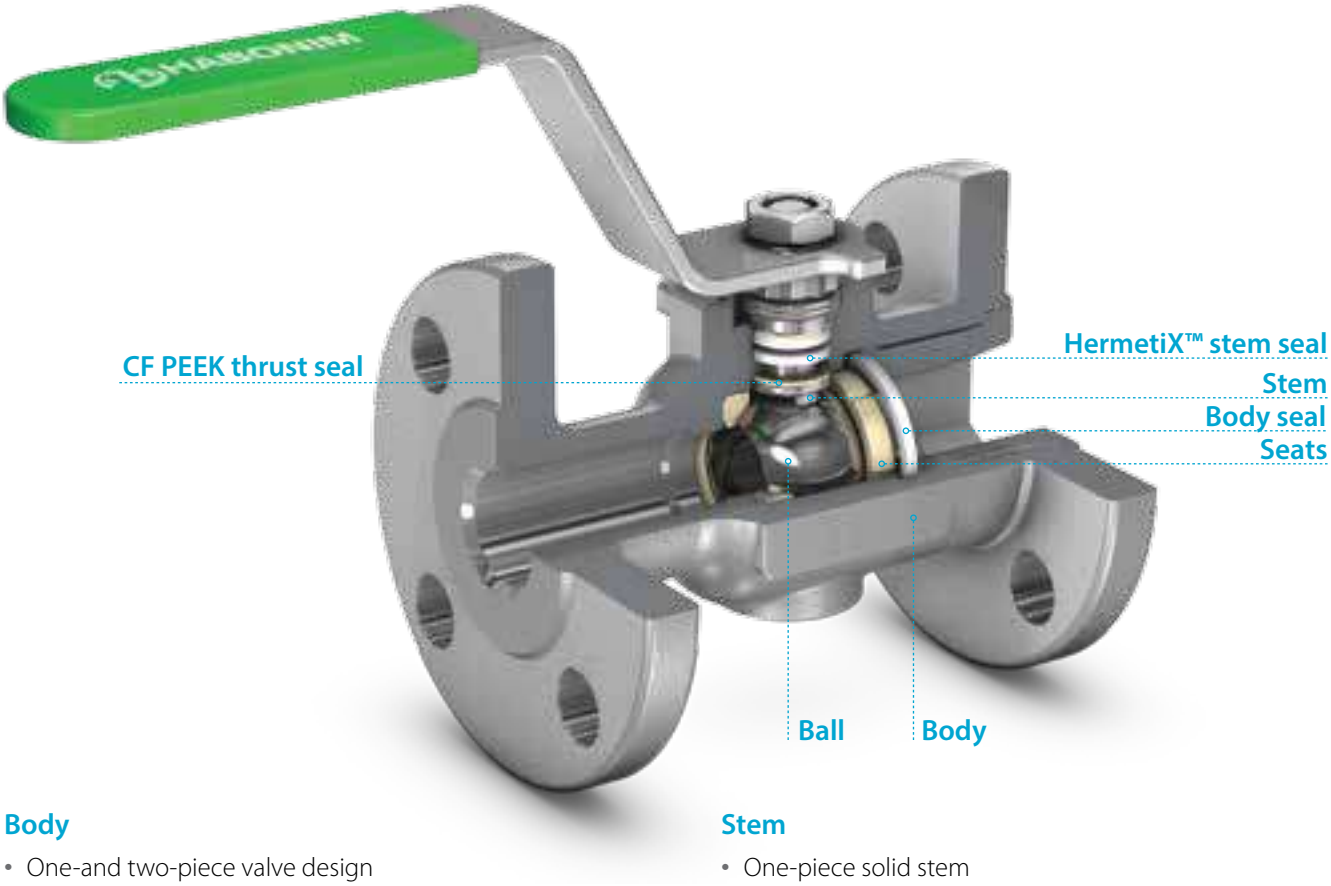
Technical summary

Size range	½"- 8" (DN15 - DN200)
Flange connection	31 series - ANSI 150 Standard port 32 series - ANSI 300 Standard port 73 series - ANSI 150 full port 74 series - ANSI 300 full port 77 series - DIN PN16 full port 78 series - DIN PN40 full port
Pressure range	Vacuum 10^{-6} Tor to 50 bar (750 psi)
Temperature range	-60 °C to +260 °C (-76 °F to +500 °F)
Materials	Stainless steel A351 CF8M, carbon steel A216 WCB, bronze, alloy C22, alloy C276, duplex, super duplex, 254SMO, inconel 625, monel 400 and more
End connections	Flanged
Operation	Lever or gear operated, pneumatic or electric actuated
Service	Chemical, petrochemical, oil and gas, energy, pulp & paper and others

Standards of compliance

Factory certification	ISO 9001-2008	Quality management system
Valve design and tests	ANSI B16.34, API 6D / ISO 14313, ISO 17292	Valve design
	ANSI B16.5, EN 1092 Pt 1&2	Flange dimensions
	ANSI B16.10, EN 558	Face-to-Face dimensions
	NACE MR-0175, ISO 15156-1/2/3	Materials for use in H_2S-containing environments in oil and gas production
	EN 12266-1, API 598	Testing of metallic valves - Pressure tests, test procedures and acceptance criteria.
	API 607, ISO 10497	Testing of valves - Fire type-testing requirements
	ISO 15848-1	Industrial valves - measurement, test and qualification procedures for fugitive emissions
Certifications	PED 2014/68/EU Module H	Pressure equipment directive
	ATEX 2014/34/EU	Equipment and protective systems intended for use in potentially explosive atmospheres (optional for actuated unit only)
	IEC 61508-2 SIL 2/3	Safety integrity level - Functional safety of electrical/ electronic/programmable electronic safety-related systems (optional for actuated unit only)
Documentation	EN 10204 2.2 / 3.1 / 3.2	Metallic materials - types of inspection documents

Design features



Body

- One-and two-piece valve design
- Cast body-flange connection
- Full compliance with ASME B16.34 and API 6D
- Spiral groove flange face to 3.2-6.3 Ra
- Tongue and groove design for DIN flanges as per EN1092 Pt. 1&2 or Russian GOST standard GOST 12815-80
- Top mounting platform compliant with ISO 5211 for easy mounting of actuator and other accessories
- Carbon steel valves are phosphate to MIL-DTL-13924D standard or available in epoxy paint finish upon request
- Stainless steel and high alloy valves provided with natural finish
- Steam jacket - upon request

Ball

- Mirror polished solid ball
- Pressure equalizing hole in the stem slot
- Variety of materials and designs

Stem

- One-piece solid stem
- Blowout-proof design
- Antistatic device
- Fire-lip

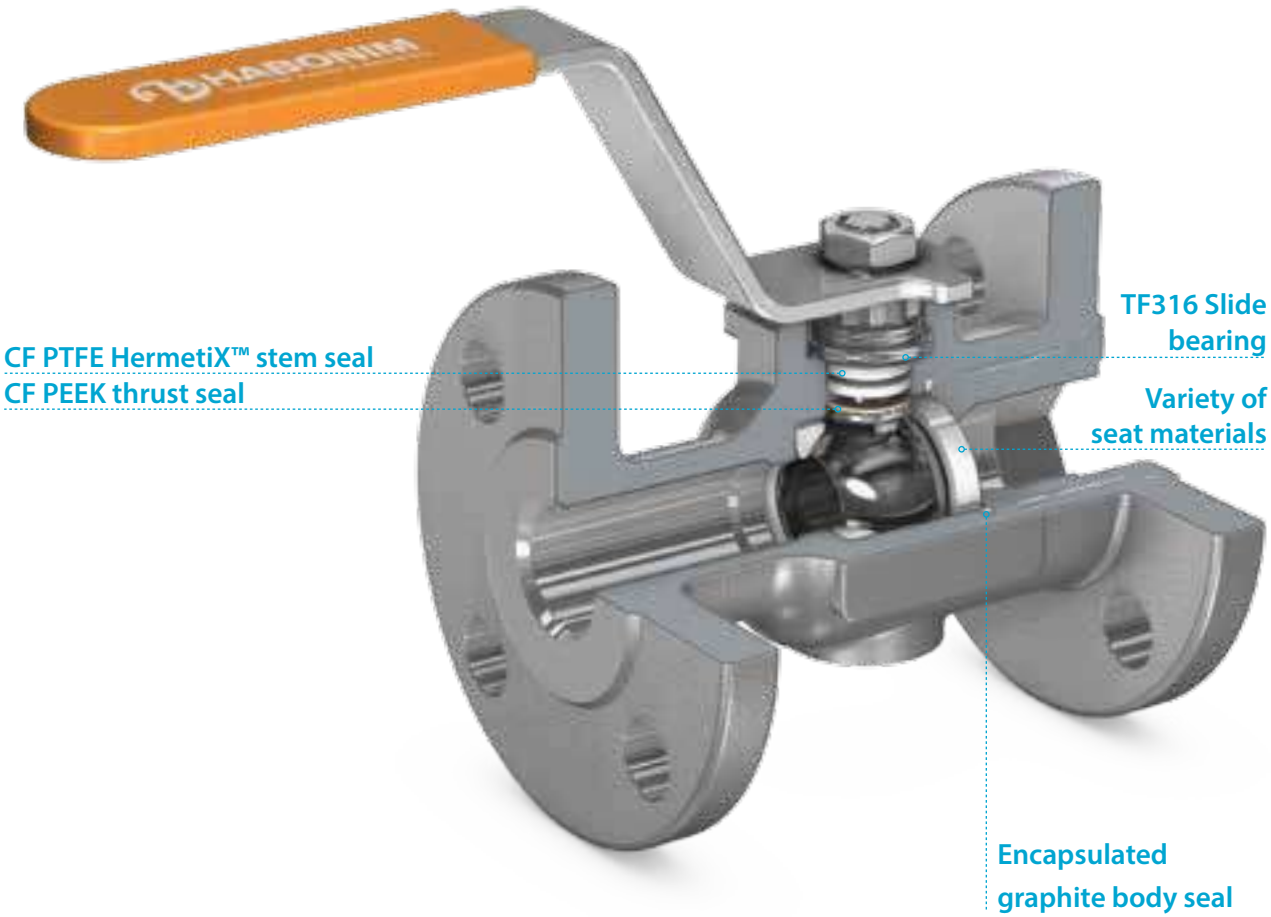
HermetiX™ stem seal

- ISO 15848-1 certified
- High endurance up to 500 cycles
- Graphite-free fire-safe certified stem seal
- Anti-abrasion mechanism
- Live loaded

Seats and seals

- Flexible seat design
- Reduced wear
- Low torque
- Rate A leakage tightness
- Self-relief seat (SRS) - upon request
- Variety of materials and designs

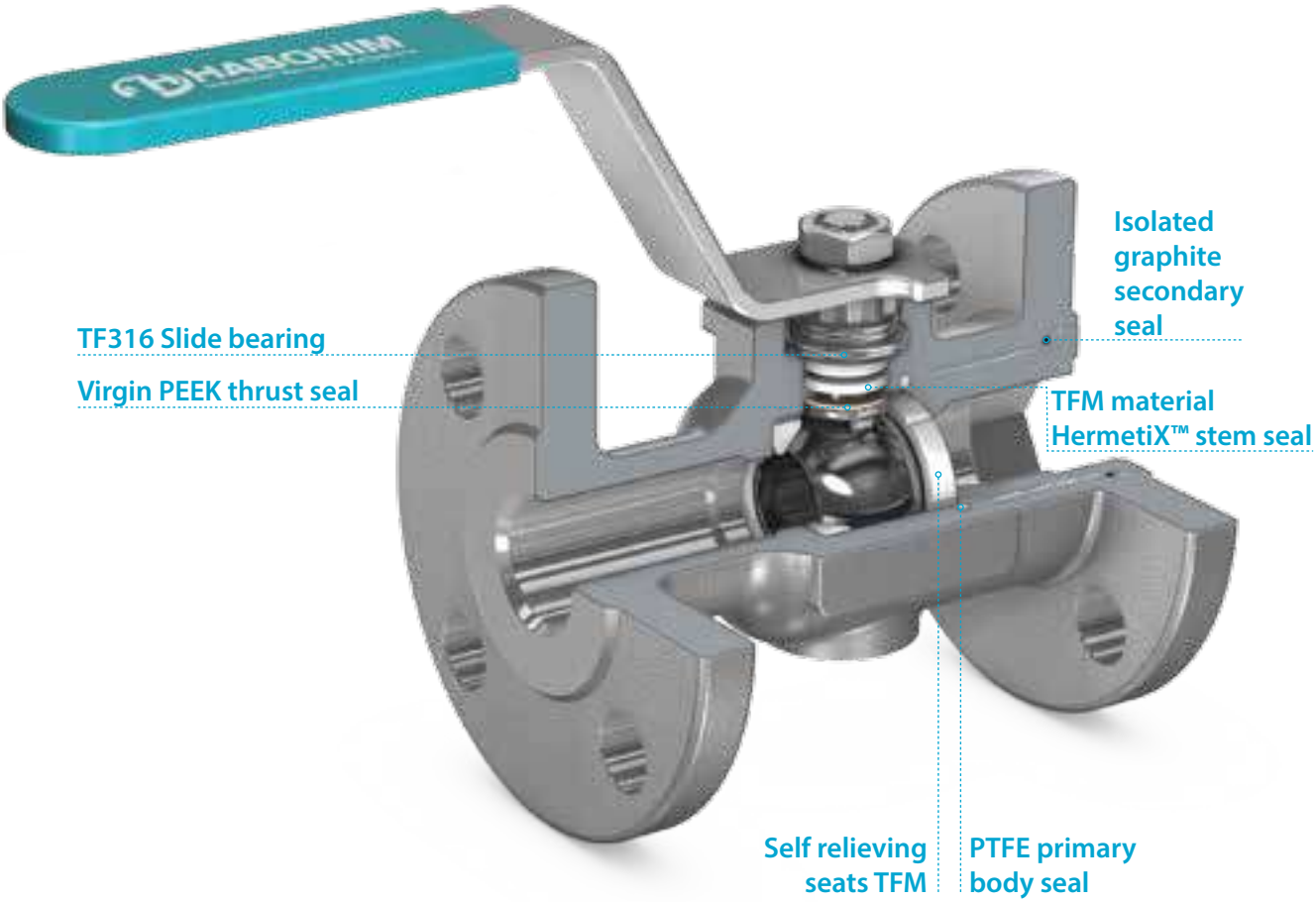
HermetiX™ Fire-safe stem seal



Unique design features

- Graphite-free fire-safe stem seal
- Ensures uninterrupted production
- Fugitive emission certified to ISO 15848-1
- Fire safe design to API 607 and ISO 10497
- Designed to operate for 500,000 cycles without refurbishment
- Increases site safety
- Habonim design Patent No. D598, 988

HermetiX™ Fire-safe graphite free valve

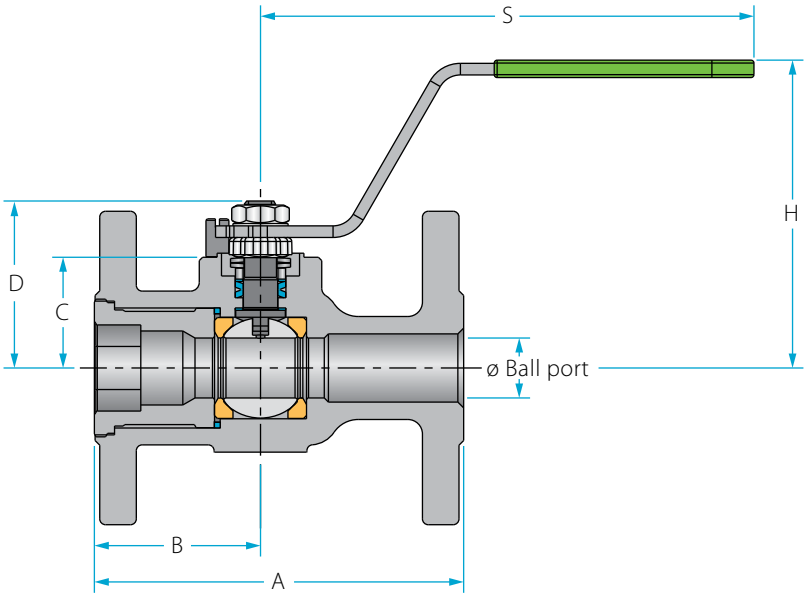


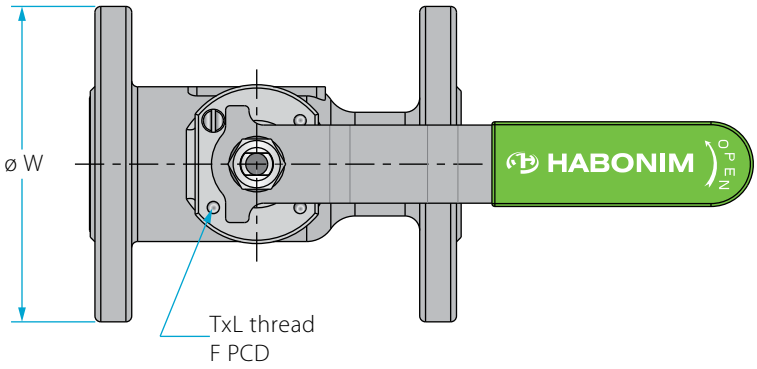
Unique design features

- Prevents media contamination from graphite particles
- FDA approved polymer materials
- Ensures uninterrupted production
- Fugitive emission designed to ISO 15848-1
- Fire-safe design to API 607 and ISO 10497
- Cleaned, assembled and packed for Biopharma / API service
- Designed to operate for 500,000 cycles without refurbishment
- Increases site safety
- Self-relieving seats (SRS) as standard
- Habonim design Patent No. D598,988

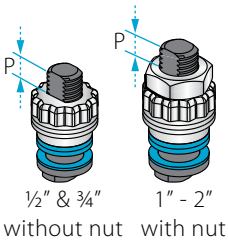
Size ½"-2" | DN15-DN50 | ANSI Class 150/300 | 31X/32X, 31P(1)/32P(1) Series

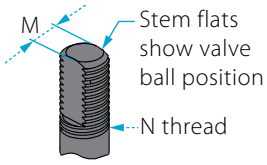
Valve dimensions





Preparation for actuation

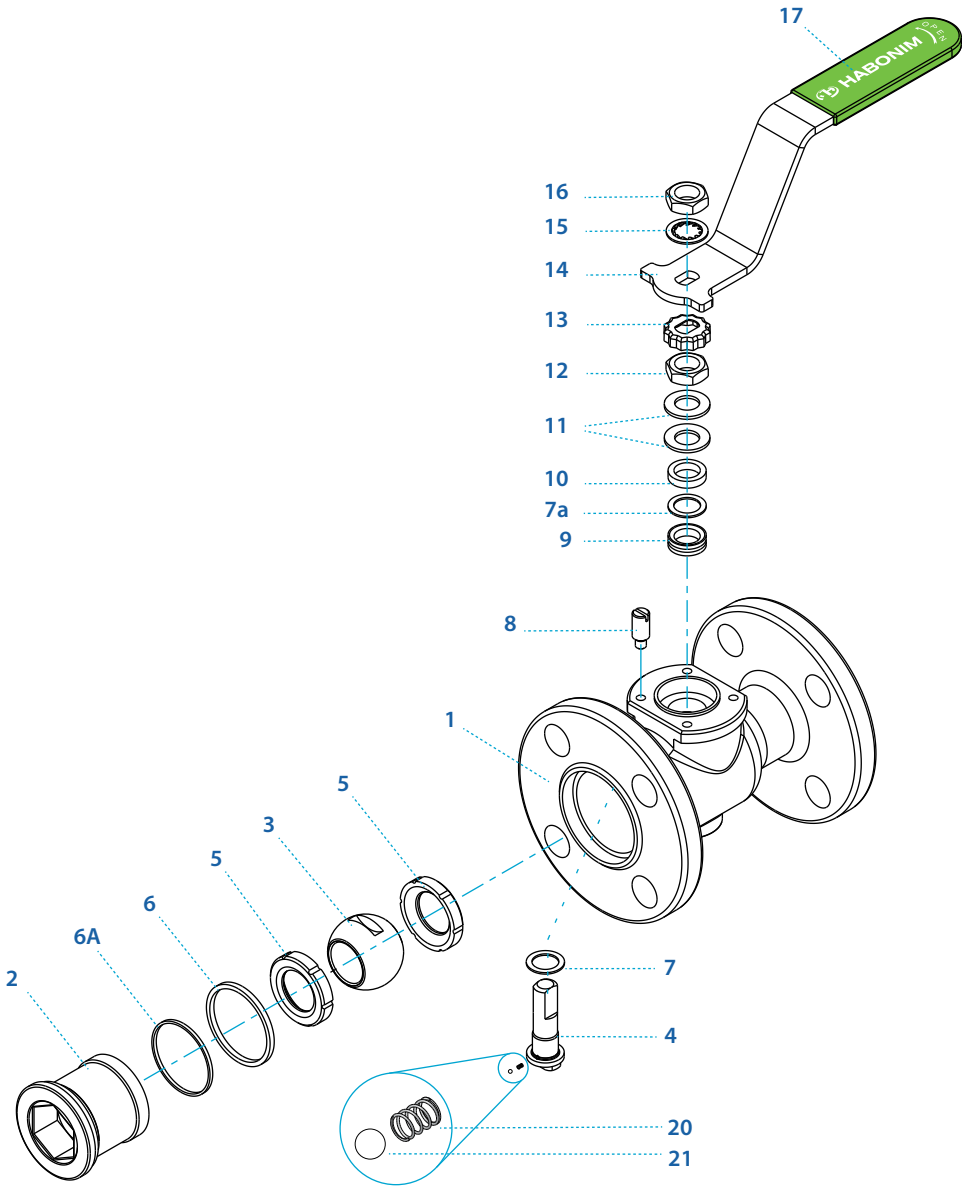




Std. port	Unit	Ball port	A		B	C	D	H	S	W		M	N	P	F		TxL	Weight kg/lb		Kv
			150	300						150	300							150	300	Cv
DN15	mm	11.15	108.00	140.00	46.00	29.00	38.00	92.00	151.00	88.90	95.25	5.54	3/8 - UNF	6.65	(F03)	36.00	M5x10	1.70	2.40	6.9
½"	inch	0.44	4.25	5.50	1.81	1.14	1.50	3.62	5.94	3.50	3.75	0.22		0.26		1.42		3.80	5.30	8.0
DN20	mm	14.30	117.00	152.00	49.00	31.40	40.30	94.00	151.00	98.55	163.07	5.54	3/8 - UNF	6.65	(F03)	36.00	M5x10	2.30	3.30	10
¾"	inch	0.56	4.61	6.00	1.93	1.24	1.59	3.70	5.94	3.88	6.42	0.22		0.26		1.42		5.10	7.30	12
DN25	mm	20.60	127.00	165.00	57.00	38.20	55.60	103.50	170.00	107.95	123.95	7.54	7/16 - UNF	7.40	(F04)	42.00	M5x10	3.10	4.60	28
1"	inch	0.81	5.00	6.50	2.25	1.50	2.19	4.07	6.69	4.25	4.88	0.30		0.29		1.65		7.30	10.20	32
DN40	mm	31.80	165.00	190.00	62.00	43.60	73.10	119.20	220.50	127.00	155.52	8.71	9/16 - UNF	8.50	(F05)	50.00	M6x12	5.50	8.70	69
1½"	inch	1.25	6.50	7.50	2.44	1.72	2.88	4.70	8.68	5.00	6.10	0.34		0.33		1.97		12.20	19.30	80
DN50	mm	38.20	178.00	216.00	68.00	48.30	77.80	123.90	220.50	152.40	165.10	8.71	9/16 - UNF	8.50	(F05)	50.00	M6x12	8.10	10.80	102
2"	inch	1.50	7.00	8.50	2.67	1.90	3.06	4.88	8.68	6.00	6.50	0.34		0.33		1.97		18.00	24.00	118

Size ½"-2" | DN15-DN50 | ANSI Class 150/300 | 31X/32X, 31P[1]/32P[1] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	Plug	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	PTFE, RPTFE, CF PTFE, PEEK, CF PEEK, TFM, UHMWPE, VESPEL, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	1
6A***	Support ring	A479 316L, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1

[1] 31P/32P Series is Habonim's standard valve design without the HermetiX™ stem seal construction.

[2] This material can only be used as part of the 31P/32P design.

Item	Description	Material specification	Qty.
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
10	Follower	B783 316L, B164 N04400	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A194 8M, EN3506-2 A4-80	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

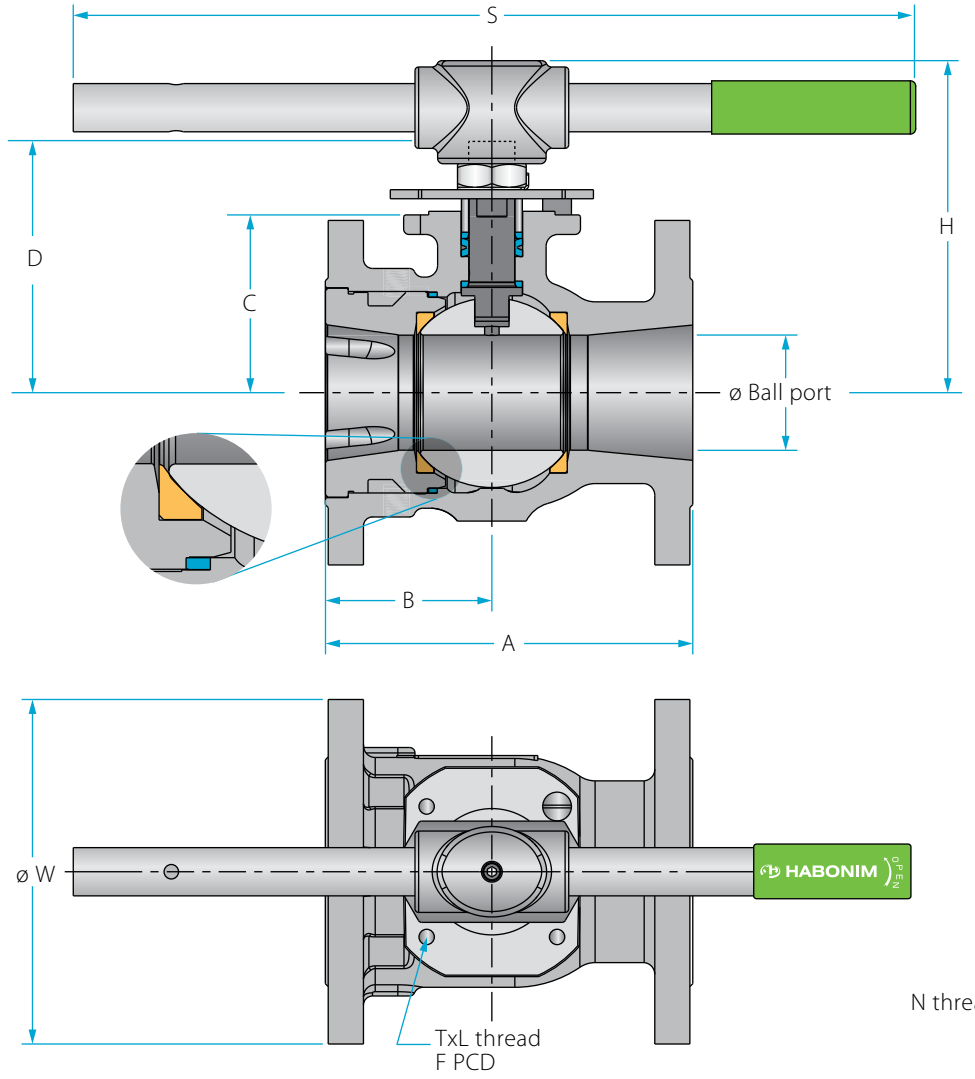
* Repair kit components

** Only with HermetiX™ stem seal

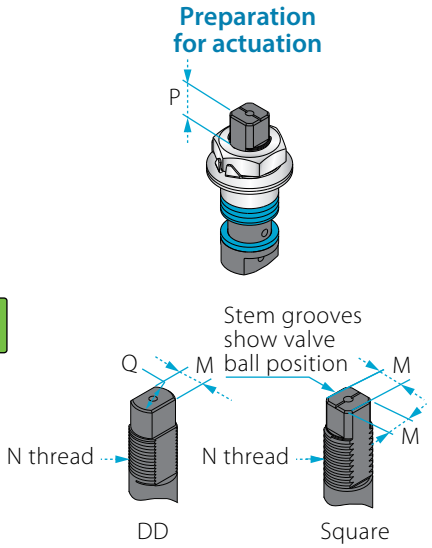
*** Only with graphite body seal

Size 3″-8″ | DN80-DN200 | ANSI Class 150/300 | 31X/32X, 31P(1)/32P(1) Series

Valve dimensions



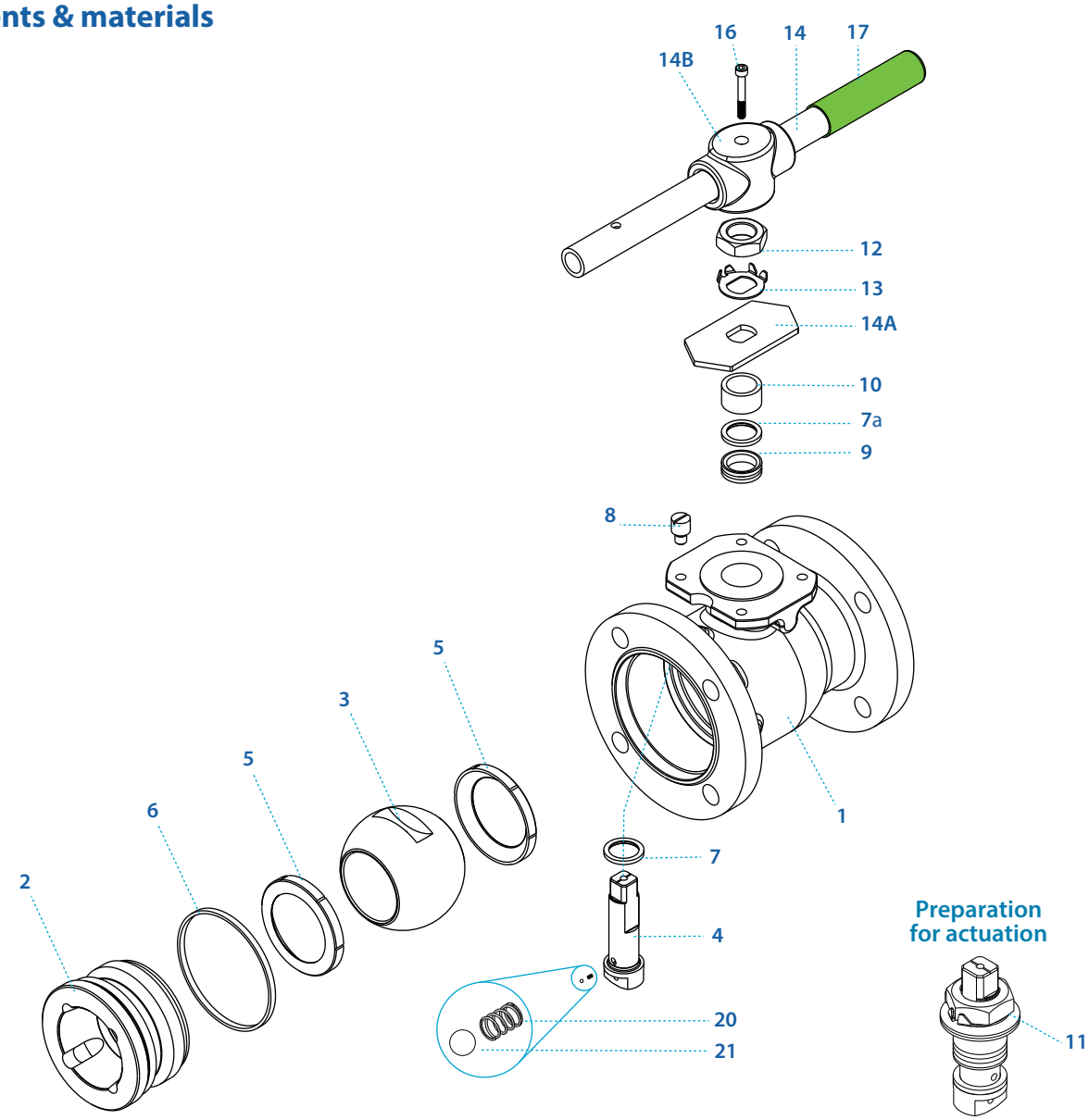
Preparation for actuation



Std. port	Unit	Ball port	A		B	C	D	H	S	W		M	M-DD	N	P	Q	F		TxL	Weight kg/lb		Kv
			150	300						150	300									150	300	Cv
DN80	mm	63.50	203.00	284.00	92.00	98.40	145.00	185.10	400.00	190.50	209.55	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10x20	18.00	22.70	300
3″	inch	2.50	8.00	11.18	3.62	3.88	5.72	7.28	15.75	7.50	8.25	0.74	0.63	UNS-2A	0.66	0.89		4.02		40.00	50.40	348
DN100	mm	82.60	229.00	305.00	102.00	114.10	161.00	201.00	610.00	228.60	254.00	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10x20	28.20	36.30	615
4″	inch	3.25	9.00	12.00	4.00	4.49	6.34	7.91	24.01	9.00	10.00	0.74	0.63	UNS-2A	0.66	0.89		4.02		62.80	80.60	713
DN150	mm	111.10	267.00	403.20	108.00	157.40	226.00	285.90	916.00	279.40	317.50	28.45	23.75	1½"-12	26.20	35.20	(F12)	125.00	M12x20	41.00	69.00	872
6″	inch	4.38	10.50	15.88	4.25	6.20	8.91	11.25	36.08	11.00	12.50	1.12	0.94	UNF-2A	1.03	1.39		4.92		91.00	153.00	1012
DN200	mm	144.40	292.00	419.00	163.50	185.20	254.00	313.60	916.00	342.90	381.00	28.45	23.75	1½"-12	26.20	35.20	(F12)	125.00	M12x20	82.00	105.00	1552
8″	inch	5.68	11.50	16.50	5.37	7.30	10.00	12.34	36.08	13.50	15.00	1.12	0.94	UNF-2A	1.03	1.39		4.92		182.00	233.00	1800

Size 3"-8" | DN80-DN200 | ANSI Class 150/300 | 31X/32X, 31P[1]/32P[1] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	Plug	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	PTFE, RPTFE, CF PTFE, PEEK, CF PEEK, TFM, UHMWPE, VESPEL, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	1
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

[1] 31P/32P Series is Habonim's standard valve design without the HermetiX™ stem seal construction.

[2] This material can only be used as part of the 31P/32P design.

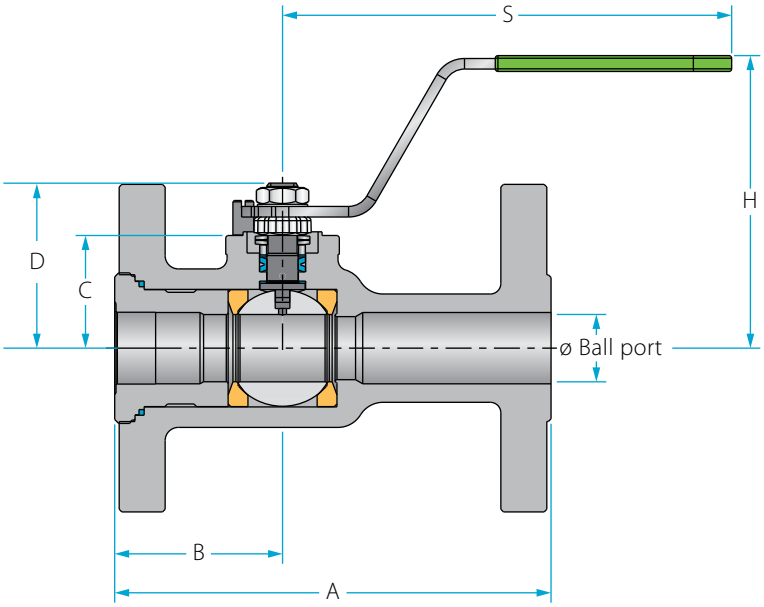
Item	Description	Material specification	Qty.
9*	Stem seal	CF PTFE, TFM, Graphite [2]	1
10	Follower	B783 316L, B164 N04400	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	C.st B18 ZP	1
13	Tab lock washer	A240 304	1
14	Handle	C.St. Zinc plate, A240 316L	1
14A	Stop plate	C.St. 1.0402 Zinc plate, A240 430	1
14B	Wrench head	Ductile Iron A536 Gr. 65-45-12, A216 WCB, A351 CF8M	1
16	Wrench bolt	EN3506-1 A2-70/A4-80, A193 Gr B8/B8M	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	2
21	Antistatic plunger	A479 304	2
23	Tag (not shown)	A167 304	1

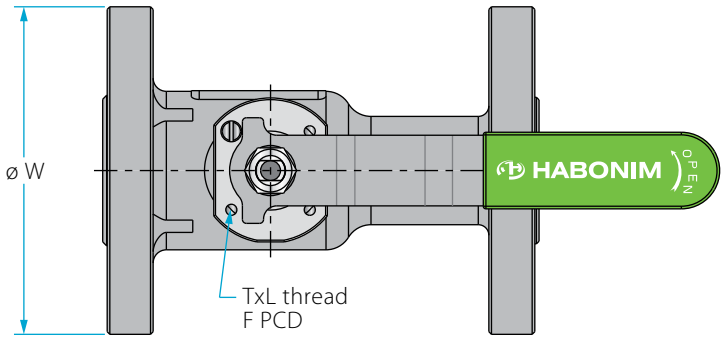
* Repair kit components

** Only with HermetiX™ stem seal

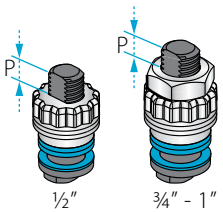
Size ½"-1" | DN15-DN25 | ANSI Class 150/300 | 73X/74X, 73P(1)/74P(1) Series

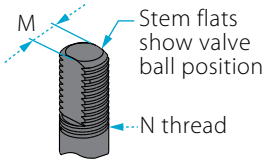
Valve dimensions





Preparation for actuation

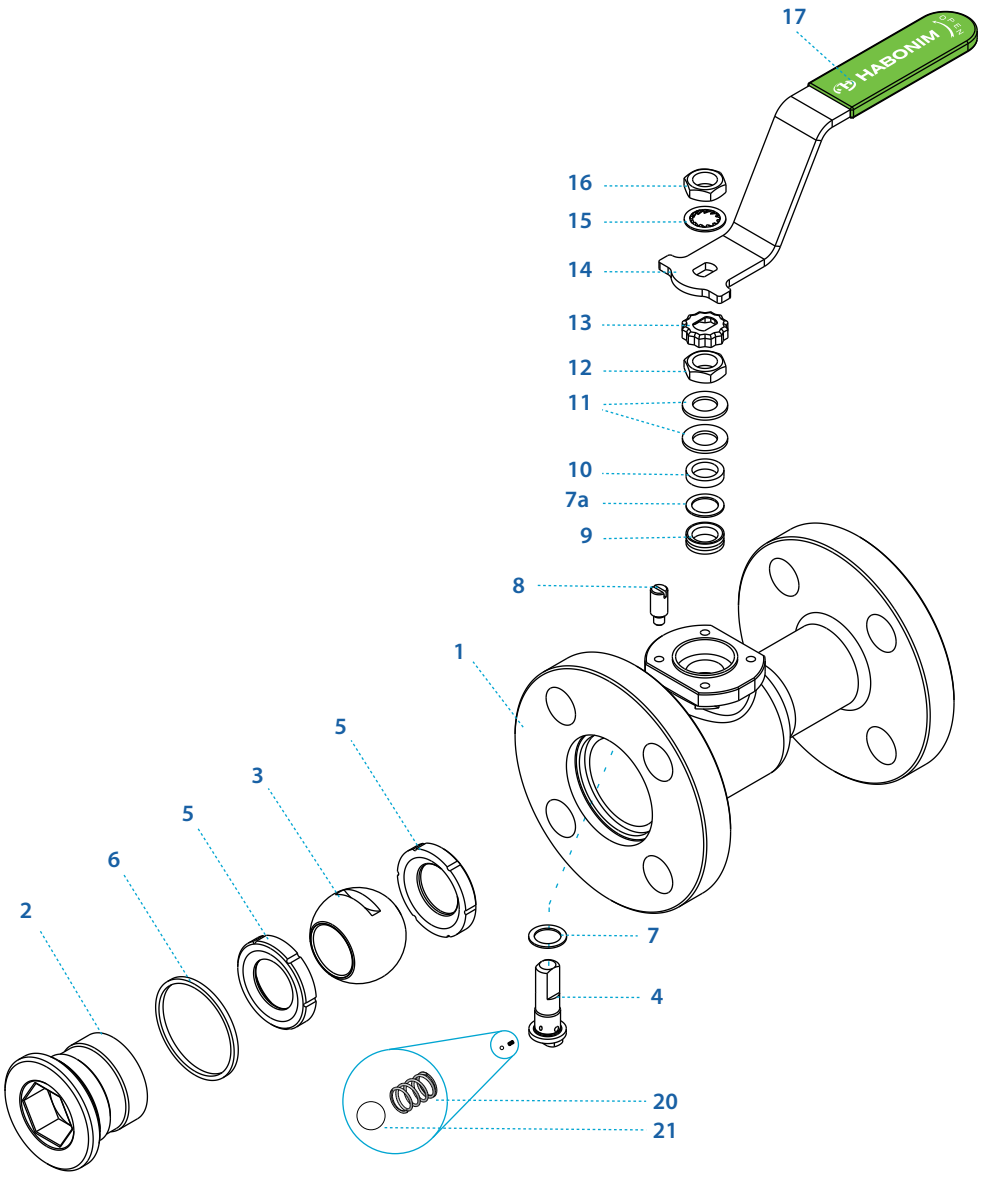




Std. port	Unit	Ball port	A		B	C	D	H	S	ØW		M	N	P	F		TxL	Weight kg/lb		Kv
			150	300						150	300							150	300	Cv
DN15	mm	14.30	108.00	140.00	47.00	31.40	40.50	94.00	151.00	89.00	95.00	5.54	⅜" UNF	6.65	(F03)	36.00	M5x10	1.80	2.30	28
½"	inch	0.56	4.25	5.51	1.85	1.24	1.59	3.70	5.95	3.50	3.74	0.22		0.26		1.42		4.00	5.10	32
DN20	mm	20.60	117.00	152.00	57.00	38.20	55.60	103.50	170.00	98.00	117.00	7.54	7/16" UNF	7.40	(F04)	42.00	M5x10	2.20	3.30	46
¾"	inch	0.81	4.61	5.98	2.24	1.50	2.19	4.08	6.69	3.86	4.61	0.30		0.29		1.65		4.80	7.30	53
DN25	mm	25.40	127.00	165.00	62.00	42.70	60.30	108.00	170.00	108.00	124.00	7.54	7/16" UNF	7.40	(F04)	42.00	M5x10	3.20	4.60	80
1"	inch	1.00	5.00	6.50	2.44	1.68	2.37	4.25	6.69	4.25	4.88	0.30		0.29		1.65		7.00	10.10	93

Size ½"-1" | DN15-DN25 | ANSI Class 150/300 | 73X/74X, 73P[1]/74P[1] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	Insert	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	PTFE, RPTFE, CF PTFE, PEEK, TFM, UHMWPE, VESPEL, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	1
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM[2], CF PTFE[2]	1

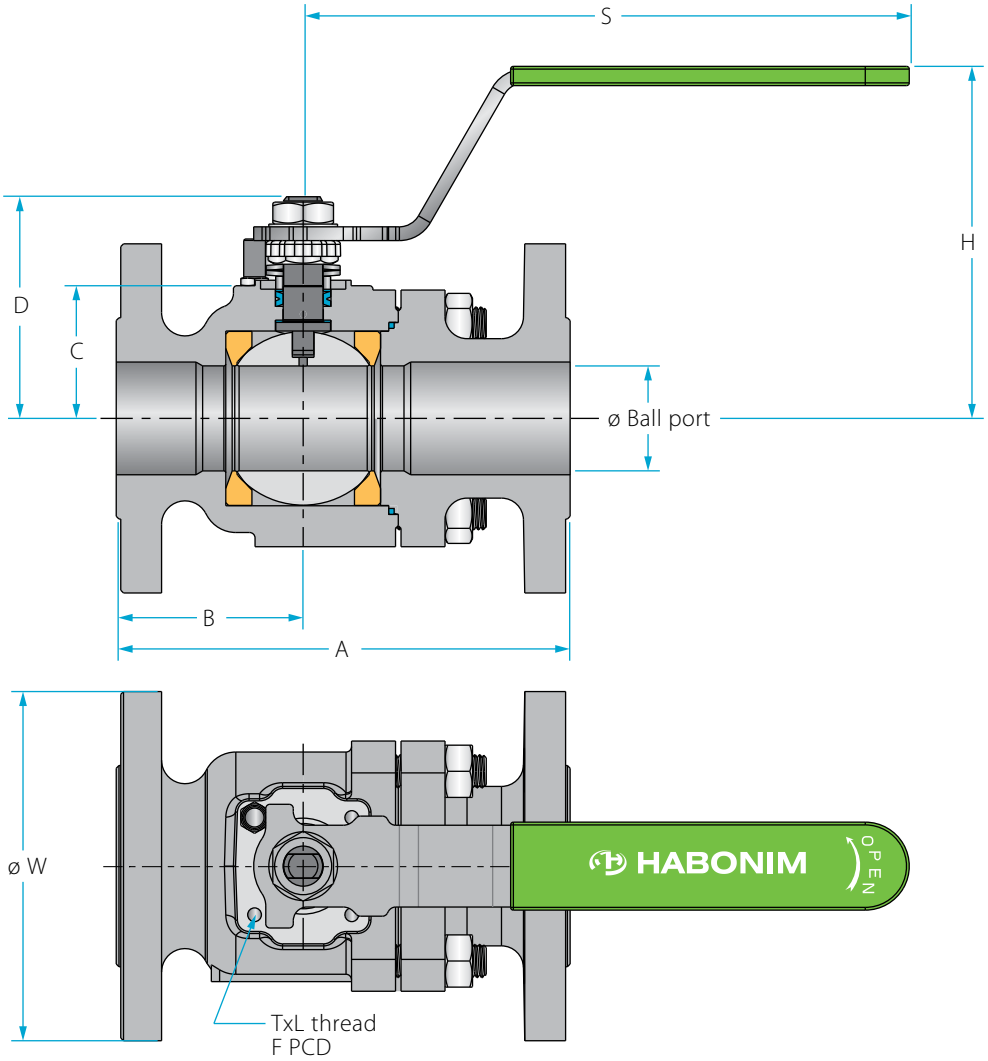
Item	Description	Material specification	Qty.
7a**	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM[2], CF PTFE[2]	1
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM, Graphite[2]	1
10	Follower	B783 316L, B164 N04400	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A194 8M, EN3506-2 A4-80	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

* Repair kit components
** Only with HermetiX™ stem seal

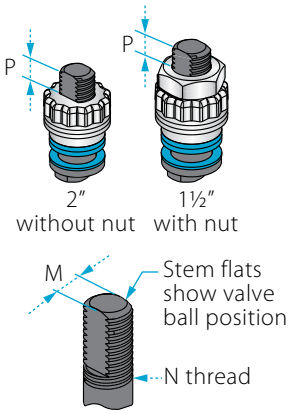
[1] 73P/74P Series is Habonim's standard valve design without the HermetiX™ stem seal construction.
[2] This material can only be used as part of the 73P/74P design.

Size 1½"-2" | DN40-DN50 | ANSI Class 150/300 | 73X/74X, 73P(1)/74P(1) Series

Valve dimensions



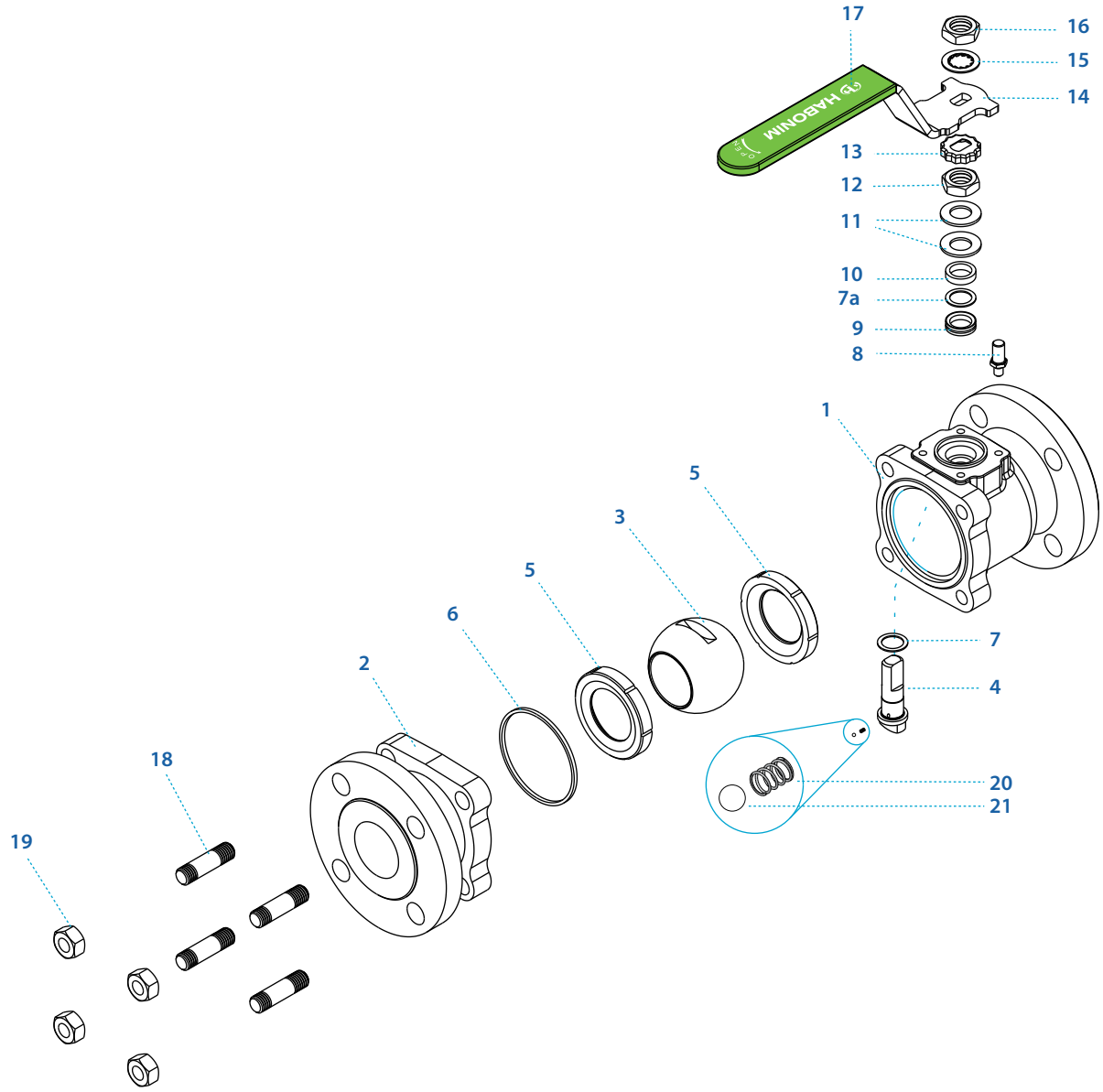
Preparation for actuation



Std. port	Unit	Ball port	A		B		C	D	H	S	ØW		M	N	P	F		TxL	Weight kg/lb		Kv
			150	300	150	300					150	300							150	300	Cv
DN40	mm	38.10	165.00	190.00	97.00	110.00	48.30	77.80	124.00	220.50	127.00	156.00	8.71	9/16" UNF	8.50	(F05)	50.00	M6x12	6.60	9.80	220
1½"	inch	1.50	6.50	7.50	3.82	4.33	1.90	3.06	4.88	6.68	5.00	6.14	0.34		0.33		1.97		14.50	21.50	255
DN50	mm	50.00	178.00	216.00	109.00	141.00	70.00	88.00	134.20	220.50	152.00	165.00	8.71	9/16" UNF	13.50	(F07)	70.00	M8x12	13.00	15.00	430
2"	inch	2.00	7.00	8.50	4.29	5.55	2.75	3.46	5.28	6.68	5.98	6.50	0.34		0.53		2.76		28.60	33.00	499

Size 1½"-2" | DN40-DN50 | ANSI Class 150/300 | 73X/74X, 73P[1]/74P[1] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	End	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	PTFE, RPTFE, CF PTFE, PEEK, TFM, UHMWPE, VESPEL, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	1
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

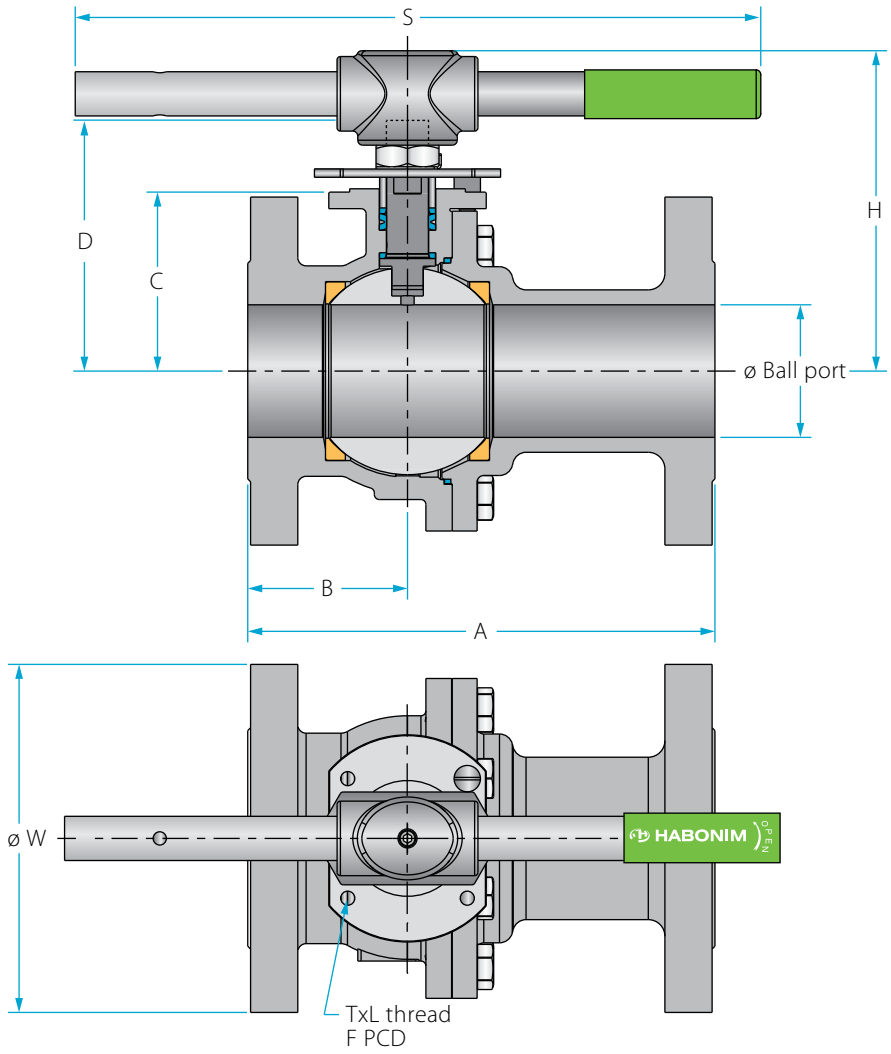
Item	Description	Material specification	Qty.
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM, Graphite[2]	1
10	Follower	B783 316L, B164 N04400	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A193 B8, B8A	1
17	Sleeve	PVC	1
18	Body bolts	A193 B8, EN3506-1 A2-70	4
19	Body nuts	A194 8M, EN3506-2 A4-80	4
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

* Repair kit components
** Only with HermetiX™ stem seal

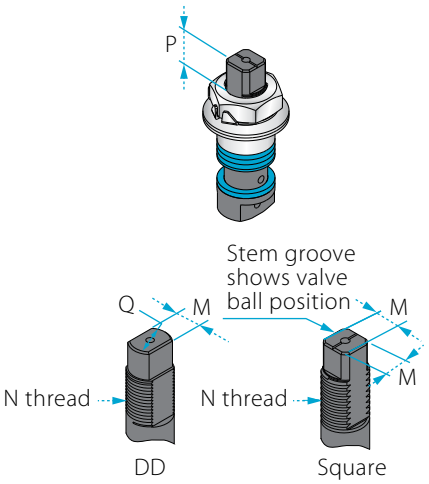
[1] 73P/74P Series is Habonim's standard valve design without the HermetiX™ stem seal construction.
[2] This material can only be used as part of the 73P/74P design.

Size 3"-8" | DN80-DN200 | ANSI Class 150/300 | 73X/74X, 73P(1)/74P(1) Series

Valve dimensions



Preparation for actuation

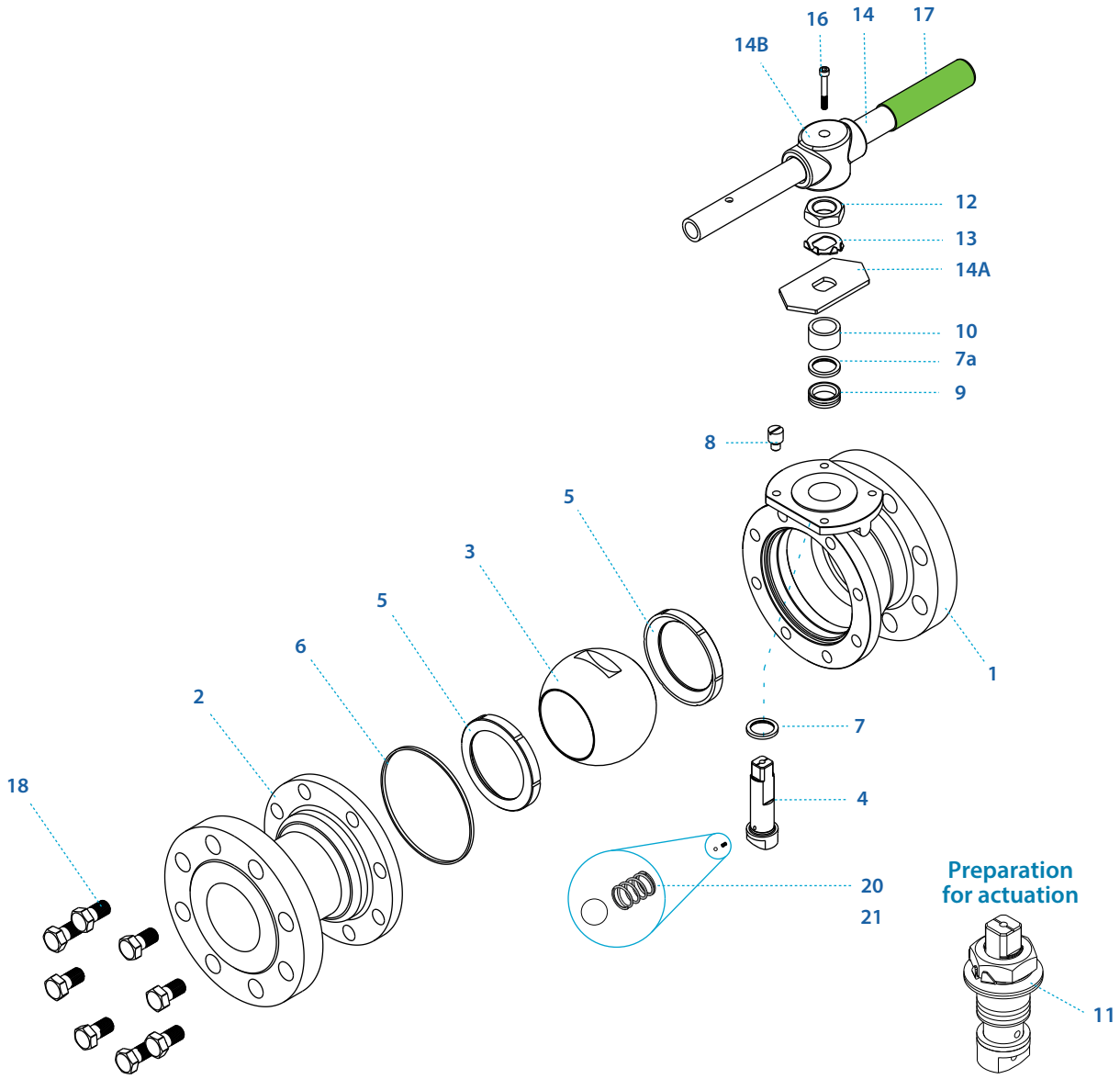


Std. port	Unit	Ball port	A		B		C	D	H	S	ØW		M	M -DD	N	P	Q	F		TxL	Weight kg/lb		Kv
			150	300	150	300					150	300									150	300	Cv
DN80	mm	80.00	203.00	282.50	77.50	96.40	108.00	154.60	194.80	400.00	191.00	210.00	18.90	15.90	1"-14 UNS-2A	16.70	22.70	(F10)	102.00	M10X20	22.00	28.20	1111
3"	inch	3.15	7.99	11.12	3.05	3.80	4.25	6.09	7.67	15.75	7.52	8.27	0.74	0.63		0.66	0.89		4.02		48.50	62.20	1300
DN100	mm	100.00	228.50	304.80	84.50	104.50	124.00	210.80	211.00	610.00	230.00	254.00	18.90	15.90	1"-14 UNS-2A	16.70	23.00	(F10)	102.00	M10X20	39.00	44.50	2051
4"	inch	3.94	9.00	12.00	3.33	4.11	4.88	8.30	8.31	24.02	9.06	10.00	0.74	0.63		0.66	0.89		4.02		86.00	98.10	2400
DN150	mm	150.00	394.00	403.50	163.50	174.50	179.00	248.50	308.00	916.00	279.40	328.00	28.45	23.75	1½"-12 UNF-2A	26.20	23.00	(F12)	125.00	M12X20	82.00	100.00	4615
6"	inch	5.91	15.51	15.89	6.44	6.87	7.05	9.78	12.13	36.06	11.00	12.91	1.12	0.94		1.03	0.91		4.92		180.80	220.50	5400
DN200	mm	200.00	457.20	502.00	242.50	241.00	241.00	353.70	-	-	460.00	460.00	35.92	35.92	2"-8 UN-2A	37.50	32.00	(F14)	140.00	M16X24	190.00	225.00	7949
8"	inch	7.87	18.00	19.76	9.55	9.49	9.49	13.93	-	-	18.11	18.11	1.41	1.41		1.48	1.26		5.51		418.90	496.00	9300

(1) Due to high valve torque, pipe handle cannot be used. A manual gear or automation means should be used to operate the valve.

Size 3"-8" | DN80-DN200 | ANSI Class 150/300 | 73X/74X, 73P[1]/74P[1] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	End	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, B574 N06022, A479 S31254, A479 S31600, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	PTFE, RPTFE, CF PTFE, PEEK, TFM, UHMWPE, VESPEL, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	1
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

[1] 73P/74P Series is Habonim's standard valve design without the HermetiX™ stem seal construction.

[2] This material can only be used as part of the 73P/74P design.

Item	Description	Material specification	Qty.
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM, Graphite[2]	1
10	Follower	B783 316L, B164 N04400	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	C.st B18 ZP	1
13	Tab lock washer	A240 304	1
14***	Handle	C.St. Zinc plate, A240 316L	1
14A	Stop plate	C.St. 1.0402 Zinc plate, A240 430	1
14B	Wrench head	Ductile Iron A536 Gr. 65-45-12, A216 WCB, A351 CF8M	1
16	Wrench bolt	EN3506-1 A2-70/A4-80, A193 Gr B8/B8M	1
17	Sleeve	PVC	1
18	Body bolts	C.St. 8.8 ZP, S.St. A2-70	8-12
20	Antistatic spring	A313 302	2
21	Antistatic plunger	A479 304	2
23	Tag (not shown)	A167 304	1

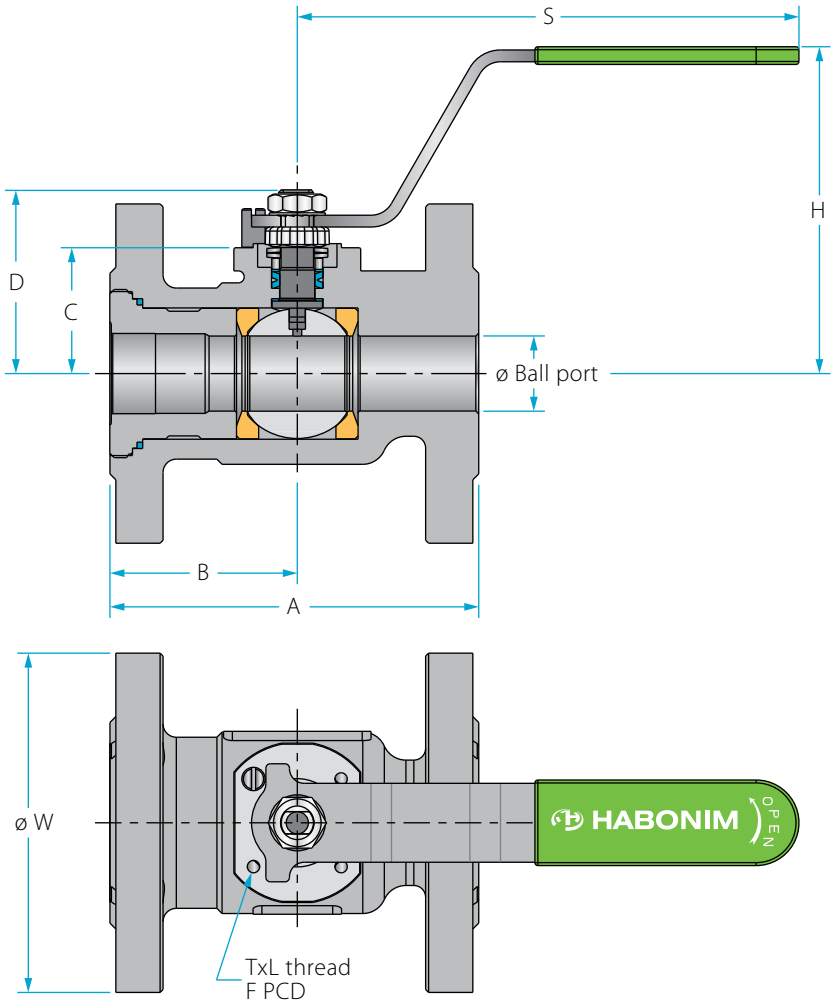
* Repair kit components

** Only with HermetiX™ stem seal

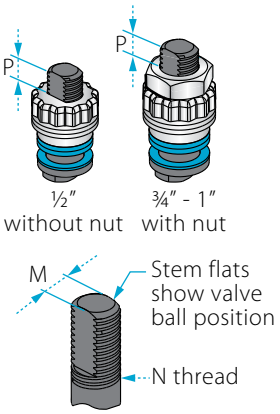
*** Gear operator should be used for size 8" DN200 (handle components are not included)

Size ½"-1" | Class DN15-DN25 | DIN PN40 | 78X, 78P[1] Series

Valve dimensions



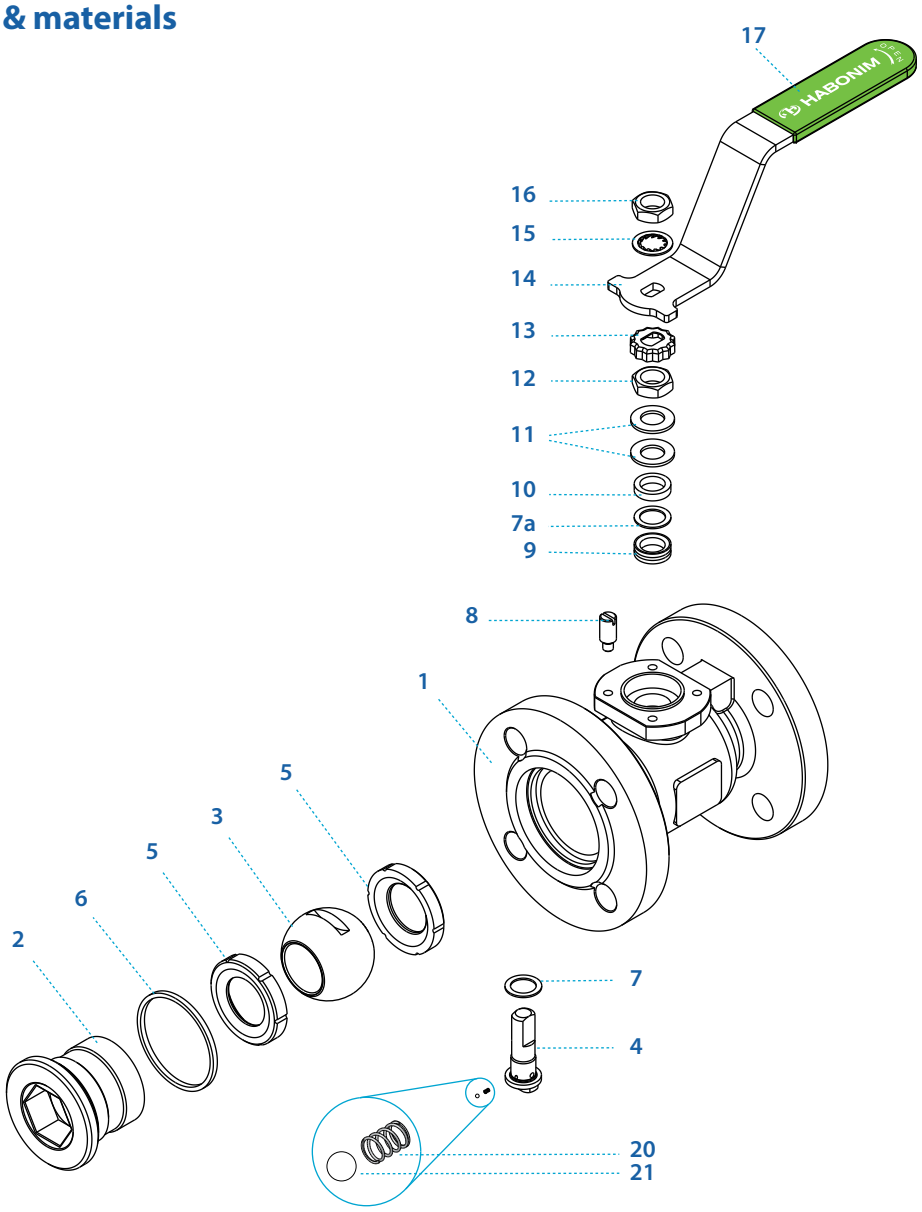
Preparation for actuation



Std. port	Unit	Ball port	A		B	C	D	H	M	N	P	S	ØW	F		TxL	Weight kg/lb		Kv
			F1	F4													F1	F4	Cv
DN15	mm	14.30	130.00	115.00	48.00	31.50	40.50	98.60	5.54	⅜" UNF	6.65	160.00	95.00	(F03)	36.00	M5x10	2.20	2.10	28
½"	inch	0.56	5.12	4.53	1.89	1.24	1.59	3.88	0.22		0.26	6.30	3.74		1.42		4.80	4.60	32
DN20	mm	20.60	150.00	120.00	58.00	38.30	56.50	105.00	7.54	7/16" UNF	7.40	170.00	105.00	(F04)	42.00	M5x10	3.20	3.00	46
¾"	inch	0.81	5.91	4.72	2.28	1.51	2.22	4.13	0.30		0.29	6.69	4.13		1.65		7.00	6.60	53
DN25	mm	25.40	160.00	125.00	63.50	41.80	61.00	108.00	7.54	7/16" UNF	7.40	170.00	115.00	(F04)	42.00	M5x10	4.20	4.00	80
1"	inch	1.00	6.30	4.92	2.50	1.65	2.40	4.25	0.30		0.29	6.69	4.53		1.65		9.20	8.80	93

Size ½"-1" | Class DN15-DN25 | DIN PN40 | 78X, 78P[1] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	X 2 CrNiMo 17 13 2 (1.4404), GS-C25 (DIN1.0619), NiCr20CuMo (2.4660), NiCu30Fe (2.4360), NiCr16Mo15W(2.4819), NiCr21Mo14W(2.4602), X1CrNiMoCuN20-18-7 (1.4547), X2CrNiMoN 22-5-3 (1.4462), X2CrNiMoN25-7-4 (1.4410), A216 WCB, A351 CF8M	1
2	Plug		1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr.630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	PTFE, RPTFE, CF PTFE, PEEK, TFM, UHMWPE, VESPEL, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	1
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	NiCr19NbMo (2.4668)	1
9*	Stem seal	CF PTFE, TFM, Graphite[2]	1

[1] 78P Series is Habonim's standard valve design without the HermetiX™ stem seal construction.

[2] This material can only be used as part of the 78P design.

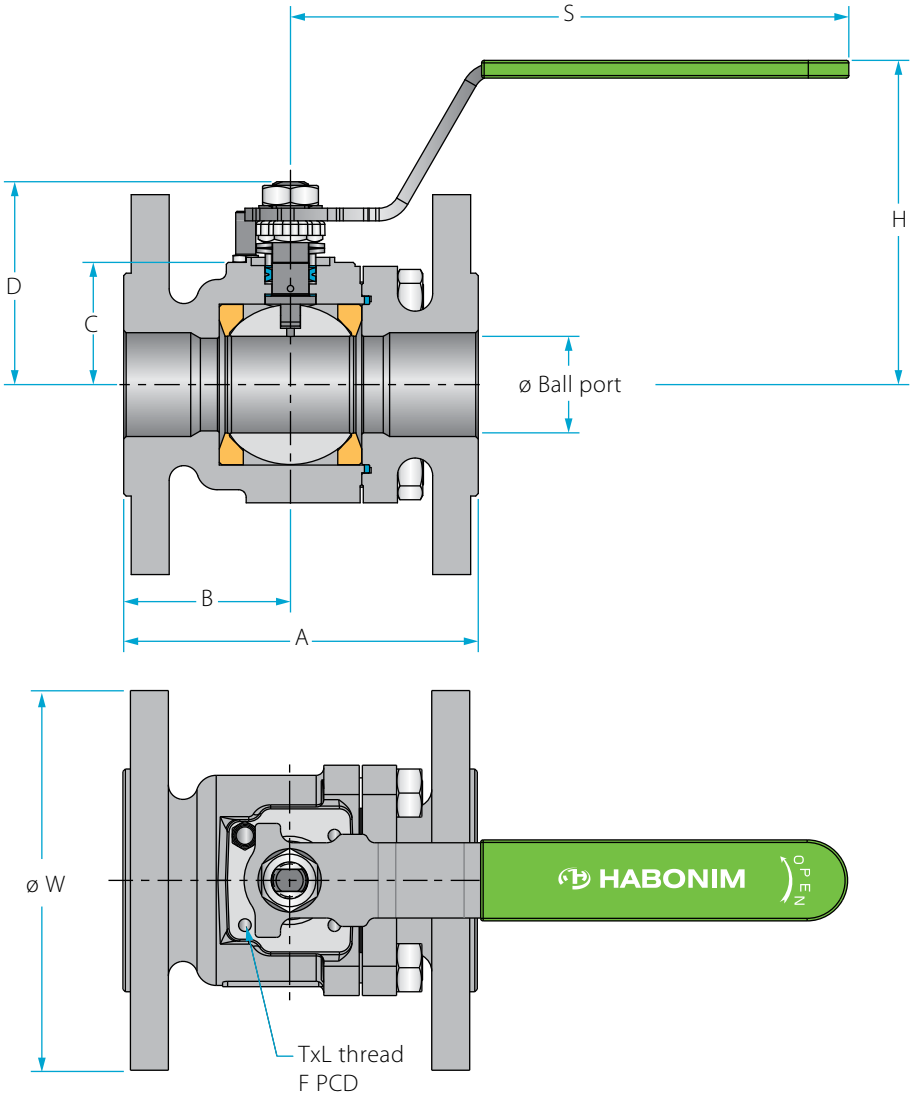
Item	Description	Material specification	Qty.
10	Follower	B783 316L, B164 N04400	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A194 8M, EN3506-2 A4-80	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

* Repair kit components

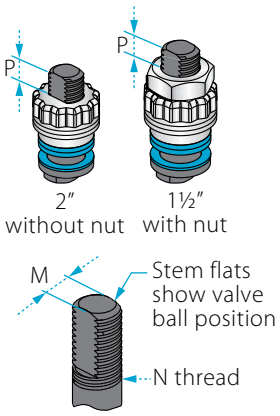
** Only with HermetiX™ stem seal

Size 1½"-2" | DN40-DN50 | DIN PN40 | 78X, 78P[(1)] Series

Valve dimensions



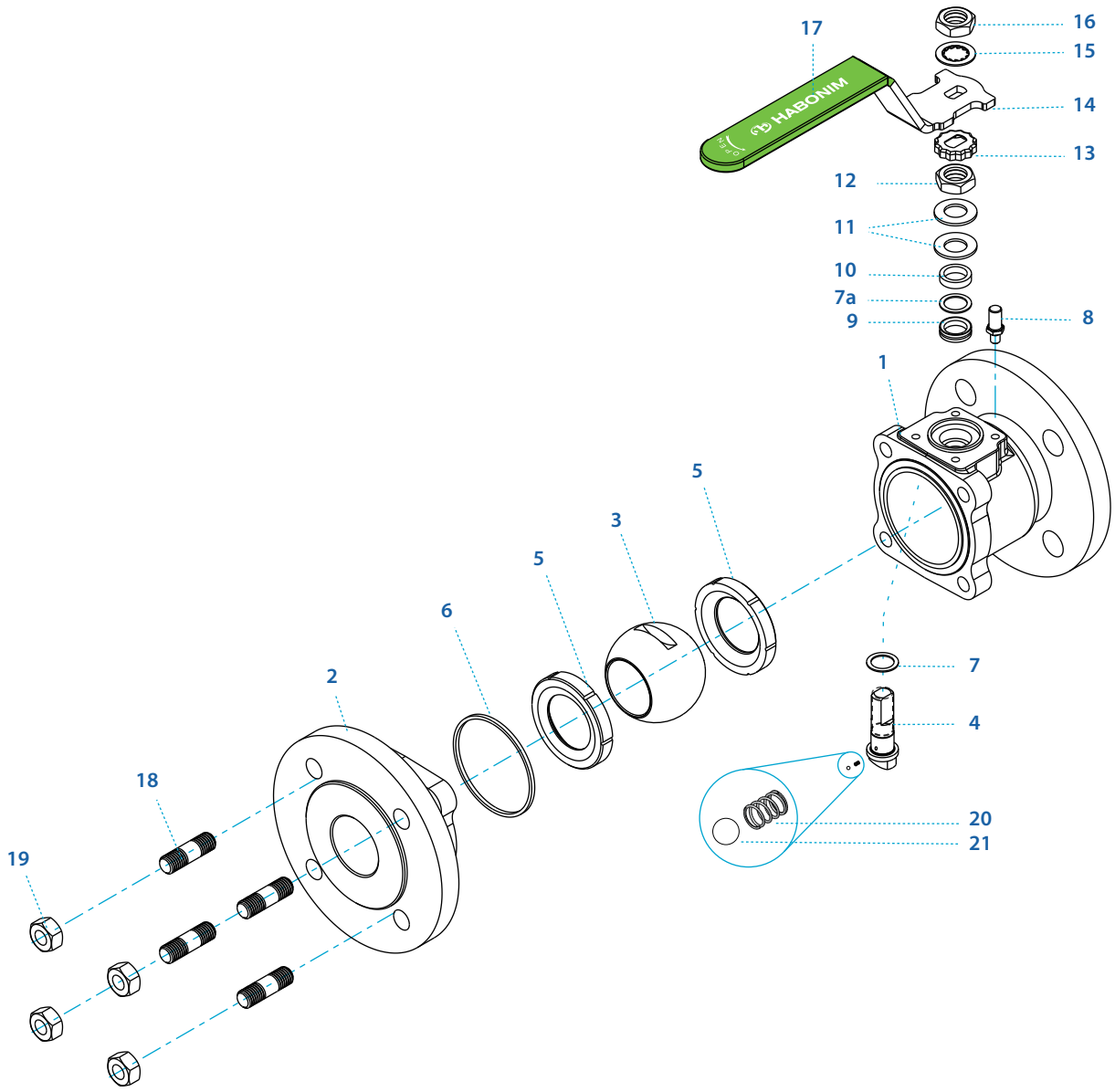
Preparation for actuation



Std. port	Unit	Ball port	A		C	B	D	H	S	ØW	M	N	P	F		TxL	Weight kg/lb		Kv
			F1	F4													F1 PN40	F4 PN40	Cv
DN40	mm	38.10	200.00	140.00	48.30	65.90	77.80	124.00	122.00	150.00	8.71	9/16" UNF	8.50	(F05)	50.00	M6x12	10.90	10.30	220
1½"	inch	1.50	7.87	5.51	1.90	2.59	3.06	4.88	4.81	5.91	0.34		0.33		1.97		24.00	22.70	255
DN50	mm	50.00	230.00	150.00	78.00	60.70	119.00	137.30	240.00	165.00	8.71	9/16" UNF	13.50	(F07)	70.00	M8x12	15.00	13.00	430
2"	inch	2.00	9.06	5.91	3.07	2.39	4.69	5.41	9.45	6.50	0.34		0.53		2.76		33.00	28.60	499

Size 1½"-2" | DN40-DN50 | DIN PN40 | 78X, 78P[1] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	X 2 CrNiMo 17 13 2 (1.4404), GS-C25 (DIN1.0619), NiCr20CuMo (2.4660), NiCu30Fe (2.4360), NiCr16Mo15W(2.4819), NiCr21Mo14W(2.4602), X1CrNiMoCuN20-18-7 (1.4547), X2CrNiMoN 22-5-3 (1.4462), X2CrNiMoN25-7-4 (1.4410), A216 WCB, A351 CF8M	1
2	End		1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	PTFE, RPTFE, CF PTFE, PEEK, TFM, UHMWPE, VESPEL, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	1
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	B783 316L, B164 N04400	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A193 B8, B8A	1
17	Sleeve	PVC	1
18	Body bolts	A193 B8, EN3506-1 A2-70	4
19	Body nuts	A194 8M, EN3506-2 A4-80	4
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

* Repair kit components

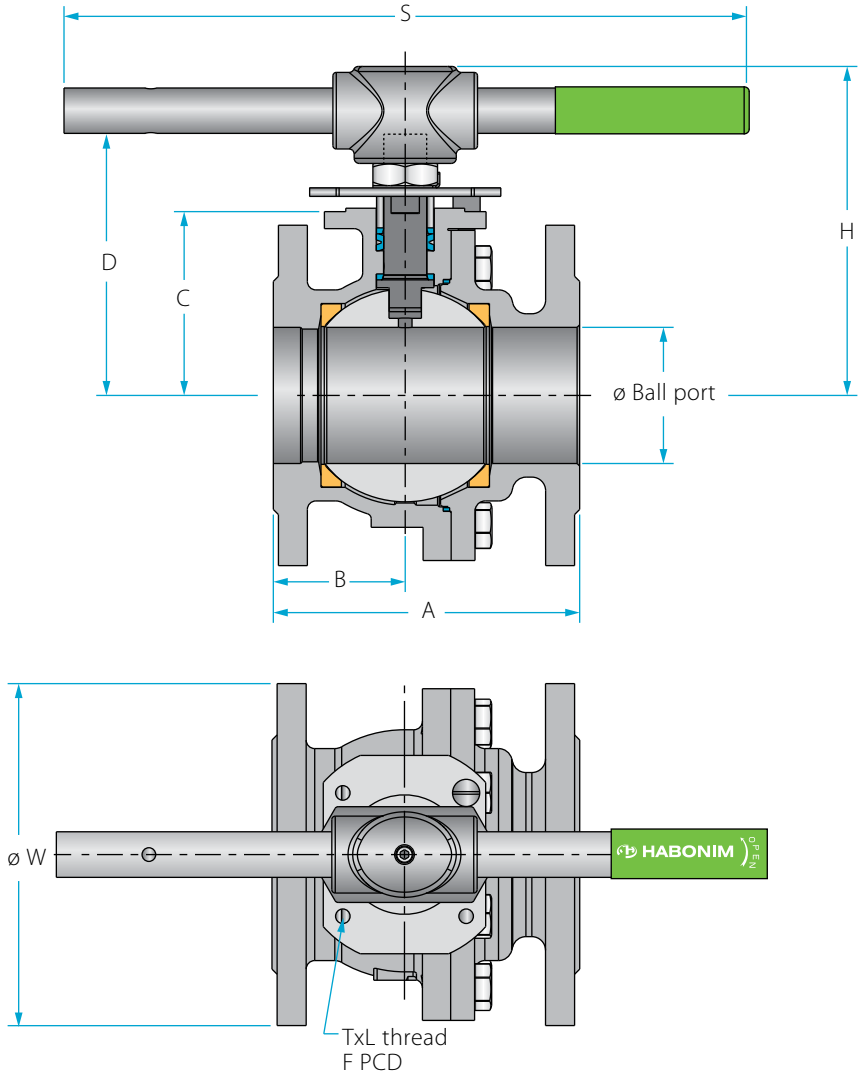
** Only with HermetiX™ stem seal

[1] 78P Series is Habonim's standard valve design without the HermetiX™ stem seal construction.

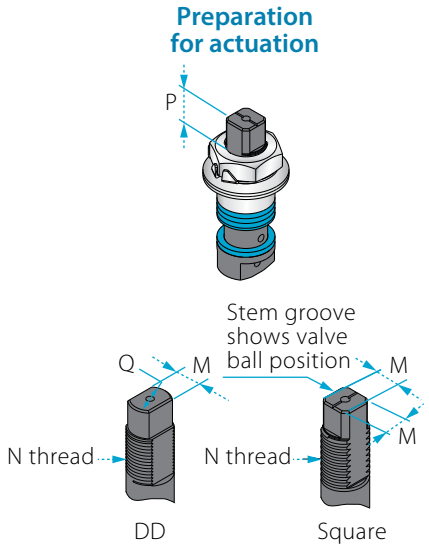
[2] This material can only be used as part of the 78P design.

Size 3"-8" | DN80-DN200 | DIN PN16 | 77X, 77P[1] Series

Valve dimensions



Preparation for actuation

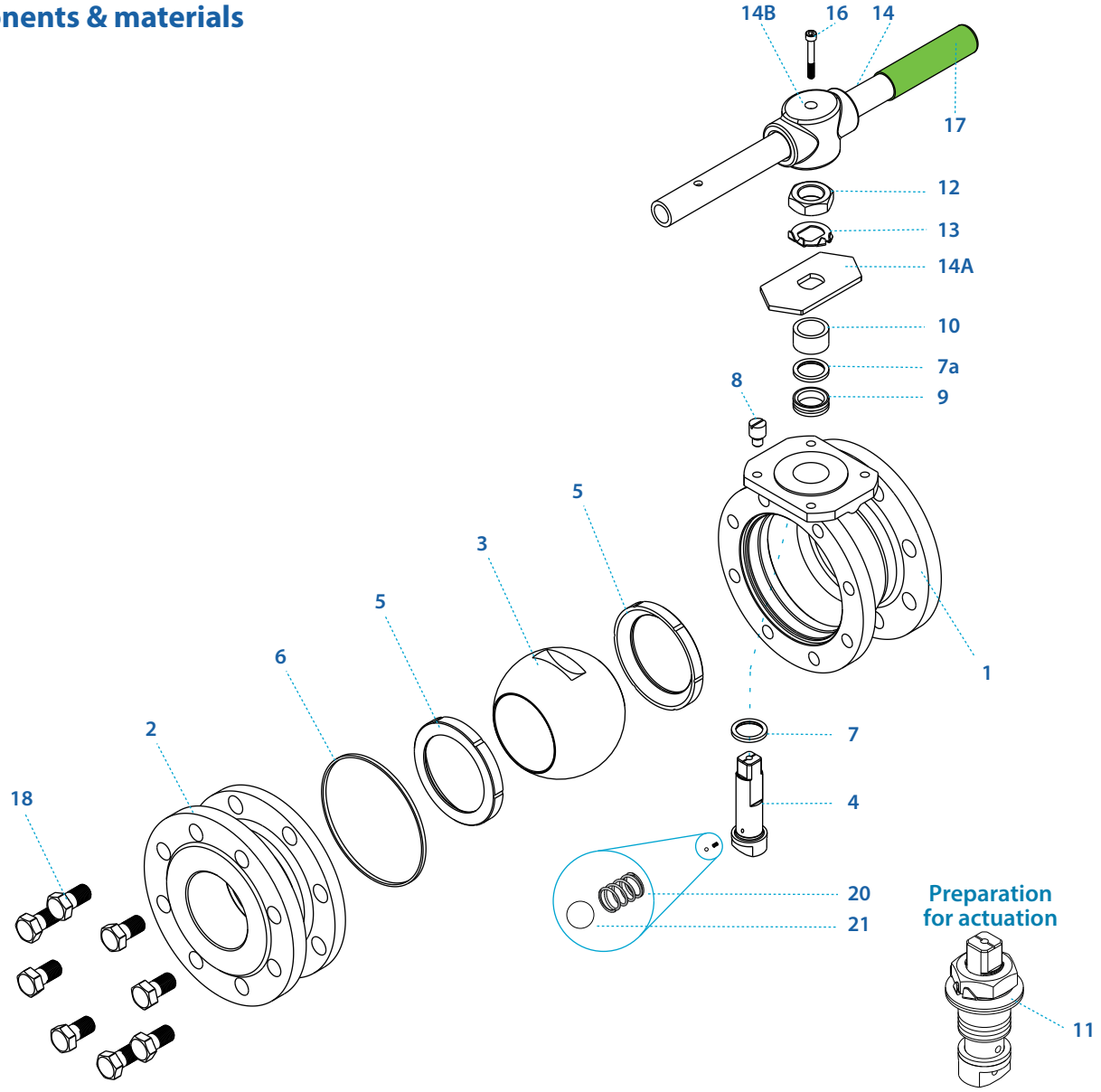


Std. port	Unit	Ball port	A		C	B	D	H	S	ØW	M	M DD	N	P	F		TxL	Weight kg/lb		Kv
			F5	F4														F5 PN16	F4 PN16	Cv
DN80	mm	80.00	-	180.00	108.00	77.50	162.00	194.80	300.00	200.00	18.90	15.90	1"-14 UNS-2A	16.70	(F10)	102.00	M10x20	-	24.00	1000
3"	inch	3.20	-	7.09	4.25	3.05	6.40	7.67	11.81	7.87	0.74	0.63		0.66		4.02		-	52.80	1160
DN100	mm	100.00	-	190.00	132.00	84.50	186.00	211.00	325.00	225.00	18.90	15.90	1"-14 UNS-2A	16.70	(F10)	102.00	M10x20	-	30.00	1830
4"	inch	3.94	-	7.48	5.20	3.33	7.32	8.31	12.80	8.86	0.74	0.63		0.66		4.02		-	66.00	2123
DN150	mm	150.00	350.00	-	178.00	163.50	236.00	308.00	362.00	328.00	28.45	23.75	1½"-12 UNF-2A	26.20	(F12)	125.00	M12x20	63.00	-	4380
6"	inch	5.91	13.78	-	7.01	6.44	9.29	12.13	14.25	12.91	1.12	0.94		1.03		4.92		139.00		5081
DN200	mm	200.00	400.00	-	226.00	243.00	286.00	-	-	395.00	35.92	35.92	2"-8 UN-2A	37.50	(F14)	140.00	M16x30	97.00	-	8070
8"	inch	7.87	15.75	-	8.91	9.55	11.26	-	-	15.55	1.41	1.41		1.48		5.51		213.00		9361

[1] Due to high valve torque, pipe handle cannot be used. A manual gear or automation means should be used to operate the valve.

Size 3"-8" | DN80-DN200 | DIN PN16 | 77X, 77P[1] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	X 2 CrNiMo 17 13 2 (1.4404), GS-C25 (DIN1.0619), NiCr20CuMo (2.4660), NiCu30Fe (2.4360), NiCr16Mo15W(2.4819), NiCr21Mo14W(2.4602), X1CrNiMoCuN20-18-7 (1.4547), X2CrNiMoN 22-5-3 (1.4462), X2CrNiMoN25-7-4 (1.4410), A216 WCB, A351 CF8M	1
2	End		1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	PTFE, RPTFE, CF PTFE, PEEK, TFM, UHMWPE, VESPEL, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	PTFE, RPTFE, TFM, UHMWPE, Graphite	1
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

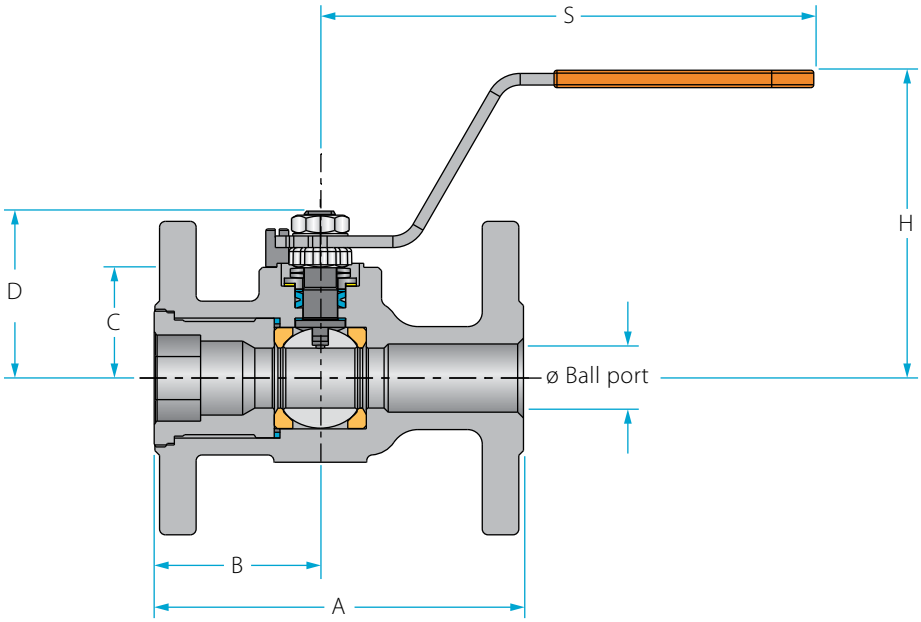
Item	Description	Material specification	Qty.
10	Follower	B783 316L, B164 N04400	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Tab lock washer	A240 304	1
14***	Handle	C.St. Zinc plate, A240 316L	1
14A	Stop plate	C.St. 1.0402 Zinc plate, A240 430	1
14B	Wrench Head	Ductile Iron A536 Gr. 65-45-12, A216 WCB, A351 CF8M	1
16	Wrench bolt	EN3506-1 A2-70/A4-80, A193 Gr B8/B8M	1
17	Sleeve	PVC	1
18	Body bolts	C.St. 8.8 ZP, S.St. A2-70	8-12
20	Antistatic spring	A313 302	2
21	Antistatic plunger	A479 304	2
23	Tag (not shown)	A167 304	1

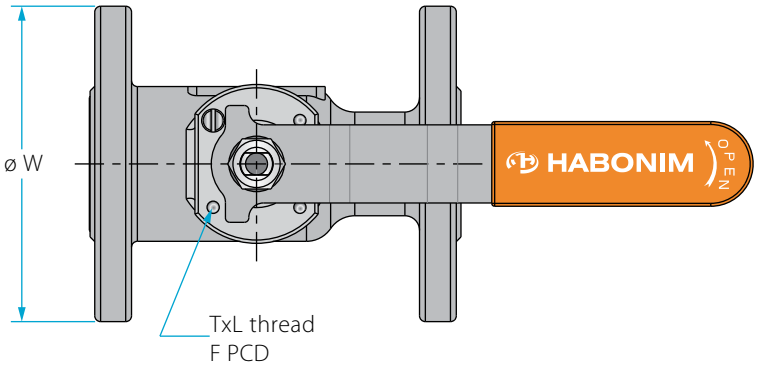
* Standard items supplied in repair kits
** Only with HermetiX™ stem seal
*** Gear operator should be used for size 8" DN200 (handle components are not included)

[1] 77P Series is Habonim's standard valve design without the HermetiX™ stem seal construction.
[2] This material can only be used as part of the 77P design.

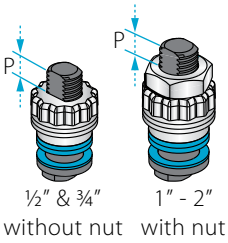
Size ½"-2" | DN15-DN50 | ANSI Class 150/300 | 31W/32W, F31P/F32P[(2)] Series

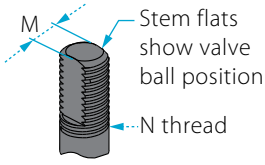
Valve dimensions





Preparation for actuation

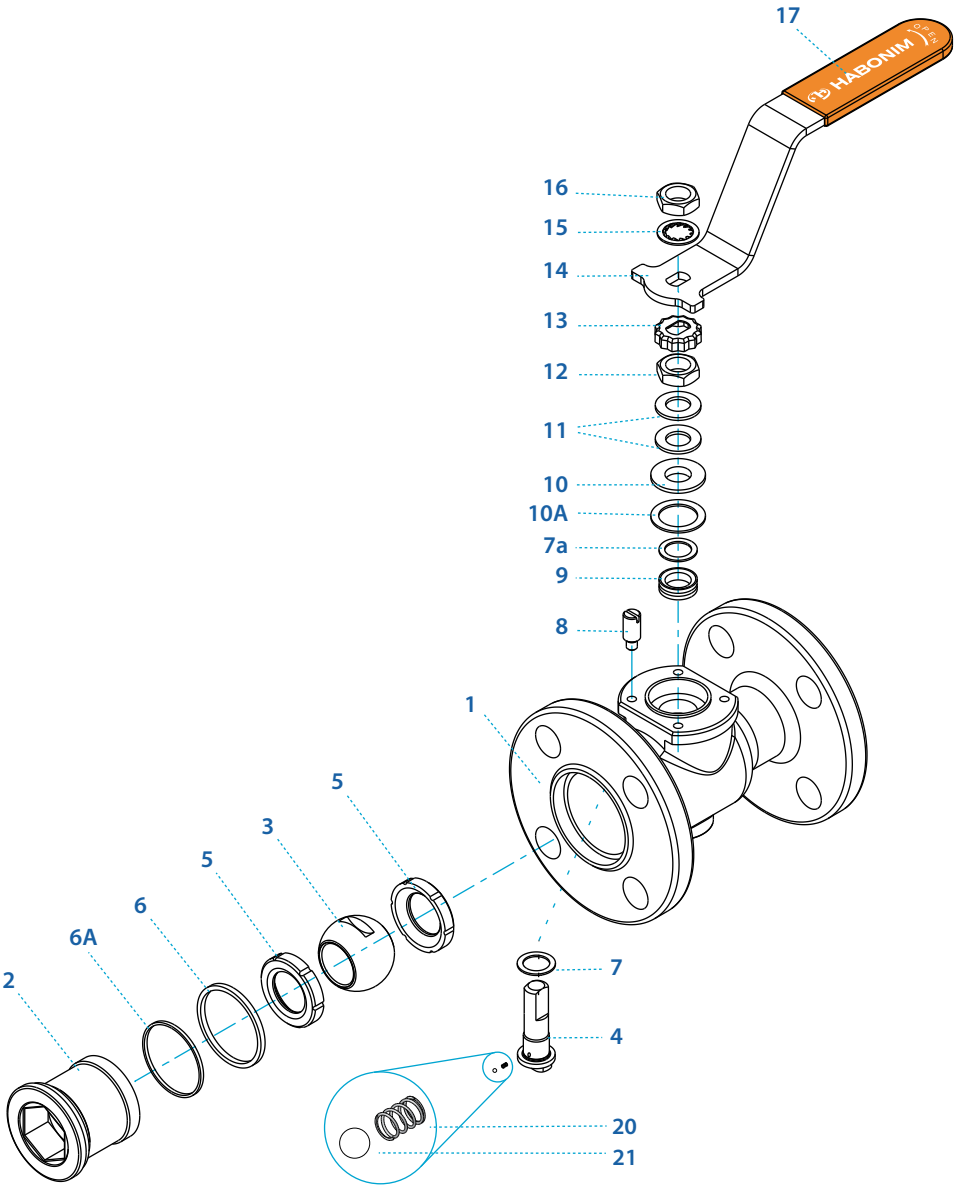




Std. port	Unit	Ball port	A		B	C	D	H	S	W		M	N	P	F		TxL	Weight kg/lb		Kv
			150	300						150	300							150	300	Cv
DN15	mm	11.15	108.00	140.00	46.00	29.00	38.00	92.00	151.00	88.90	95.25	5.54	3/8 - UNF	6.65	(F03)	36.00	M5x10	1.70	2.40	6.9
½"	inch	0.44	4.25	5.50	1.81	1.14	1.50	3.62	5.94	3.50	3.75	0.22		0.26		1.42		3.80	5.30	8.0
DN20	mm	14.30	117.00	152.00	49.00	31.40	40.30	94.00	151.00	98.55	163.07	5.54	3/8 - UNF	6.65	(F03)	36.00	M5x10	2.30	3.30	10
¾"	inch	0.56	4.61	6.00	1.93	1.24	1.59	3.70	5.94	3.88	6.42	0.22		0.26		1.42		5.10	7.30	12
DN25	mm	20.60	127.00	165.00	57.00	38.20	55.60	103.50	170.00	107.95	123.95	7.54	7/16 - UNF	7.40	(F04)	42.00	M5x10	3.10	4.60	28
1"	inch	0.81	5.00	6.50	2.25	1.50	2.19	4.07	6.69	4.25	4.88	0.30		0.29		1.65		7.30	10.20	32
DN40	mm	31.80	165.00	190.00	62.00	43.60	73.10	119.20	220.50	127.00	155.52	8.71	9/16 - UNF	8.50	(F05)	50.00	M6x12	5.50	8.70	69
1½"	inch	1.25	6.50	7.50	2.44	1.72	2.88	4.70	8.68	5.00	6.10	0.34		0.33		1.97		12.20	19.30	80
DN50	mm	38.20	178.00	216.00	68.00	48.30	77.80	123.90	220.50	152.40	165.10	8.71	9/16 - UNF	8.50	(F05)	50.00	M6x12	8.10	10.80	102
2"	inch	1.50	7.00	8.50	2.67	1.90	3.06	4.88	8.68	6.00	6.50	0.34		0.33		1.97		18.00	24.00	118

Size ½"-2" | DN15-DN50 | ANSI Class 150/300 | 31W/32W, F31P/F32P[2] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	Plug	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	RPTFE, CF PTFE, CF PEEK, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	Graphite	1
6A	Support ring	A479 316L, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1

Item	Description	Material specification	Qty.
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM, CF PTFE	1
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A194 8M, EN3506-2 A4-80	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

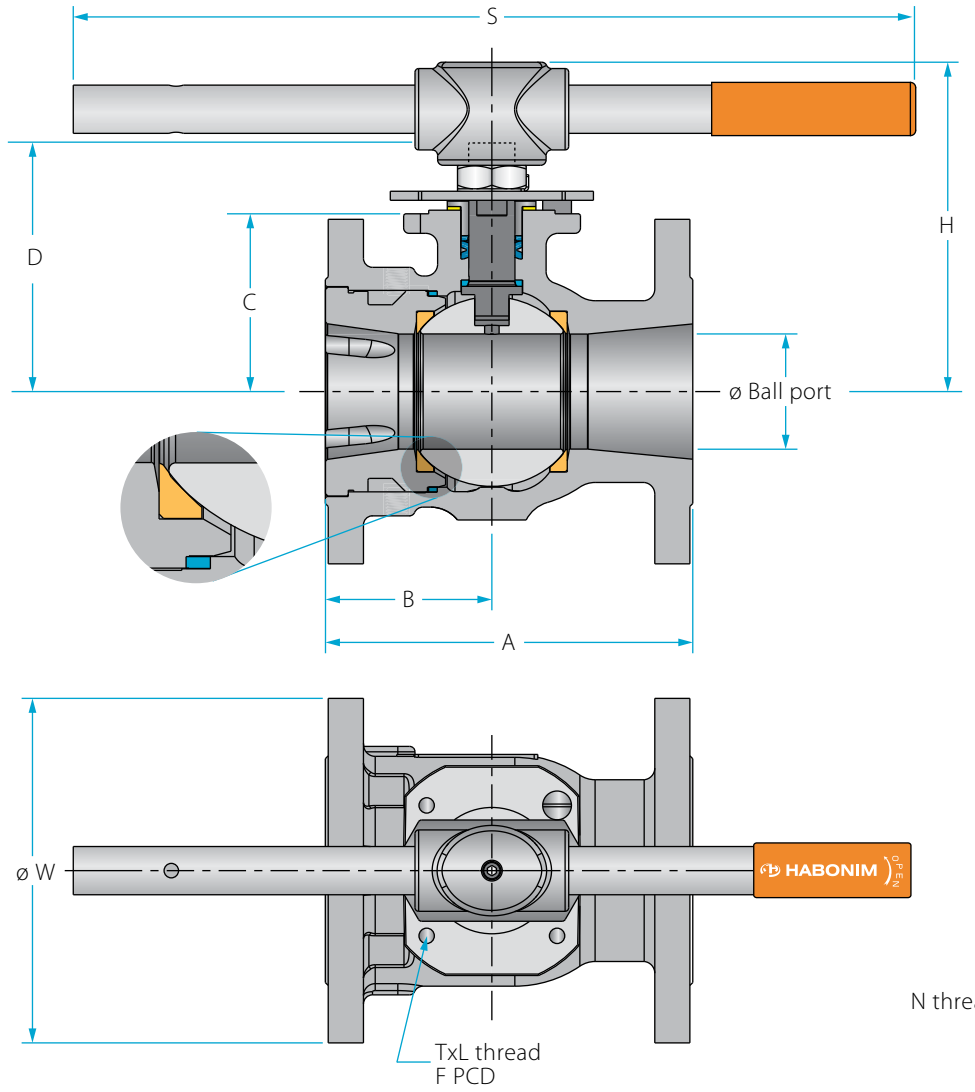
[1] This material can only be used as part of the 31P/32P design.

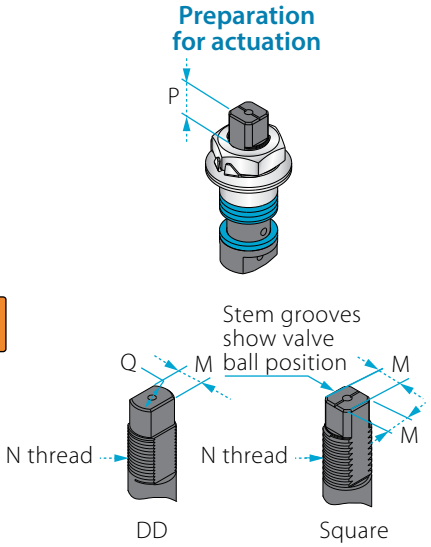
[2] F31P/F32P Series is Habonim's firesafe valve design without the Graphite free HermetiX™ stem seal construction.

* Repair kit components

Size 3″-8″ | DN80-DN200 | ANSI Class 150/300 | 31W/32W F31P/F32P(2) Series

Valve dimensions

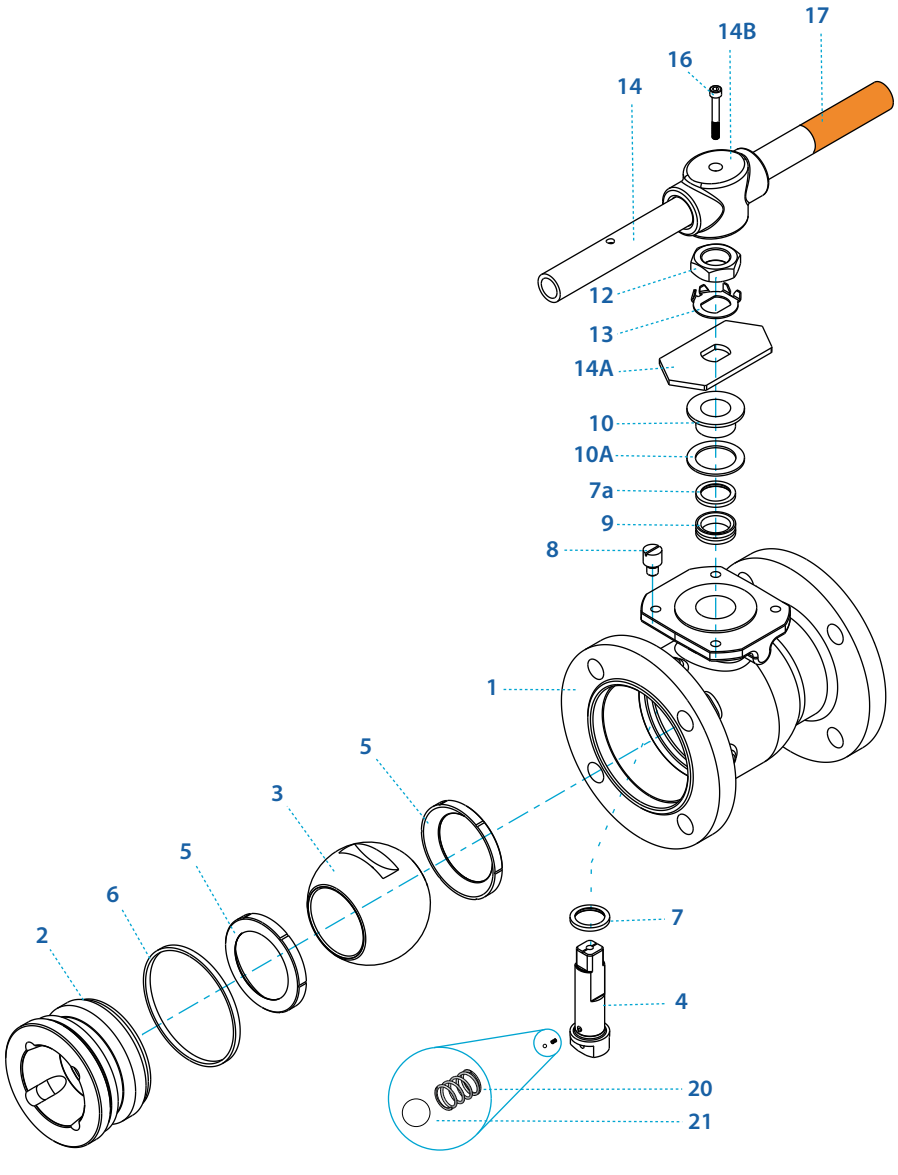




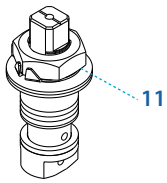
Std. port	Unit	Ball port	A		B	C	D	H	S	W		M	M-DD	N	P	Q	F		TxL	Weight kg/lb		Kv
			150	300						150	300									150	300	Cv
DN80	mm	63.50	203.00	284.00	92.00	98.40	145.00	185.10	400.00	190.50	209.55	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10x20	18.00	22.70	300
3″	inch	2.50	8.00	11.18	3.62	3.88	5.72	7.28	15.75	7.50	8.25	0.74	0.63	UNS-2A	0.66	0.89		4.02		40.00	50.40	348
DN100	mm	82.60	229.00	305.00	102.00	114.10	161.00	201.00	610.00	228.60	254.00	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10x20	28.20	36.30	615
4″	inch	3.25	9.00	12.00	4.00	4.49	6.34	7.91	24.01	9.00	10.00	0.74	0.63	UNS-2A	0.66	0.89		4.02		62.80	80.60	713
DN150	mm	111.10	267.00	403.20	108.00	157.40	226.00	285.90	916.00	279.40	317.50	28.45	23.75	1½"-12	26.20	35.20	(F12)	125.00	M12x20	41.00	69.00	872
6″	inch	4.38	10.50	15.88	4.25	6.20	8.91	11.25	36.08	11.00	12.50	1.12	0.94	UNF-2A	1.03	1.39		4.92		91.00	153.00	1012
DN200	mm	144.40	292.00	419.00	163.50	185.20	254.00	313.60	916.00	342.90	381.00	28.45	23.75	1½"-12	26.20	35.20	(F12)	125.00	M12x20	82.00	105.00	1552
8″	inch	5.68	11.50	16.50	5.37	7.30	10.00	12.34	36.08	13.50	15.00	1.12	0.94	UNF-2A	1.03	1.39		4.92		182.00	233.00	1800

Size 3"-8" | DN80-DN200 | ANSI Class 150/300 | 31W/32W F31P/F32P[2] Series

Components & materials



Preparation for actuation



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	Plug	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	RPTFE, CF PTFE, CF PEEK, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	Graphite	1
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
8	Stop pin	A582 303	1

[1] This material can only be used as part of the 31P/32P design.

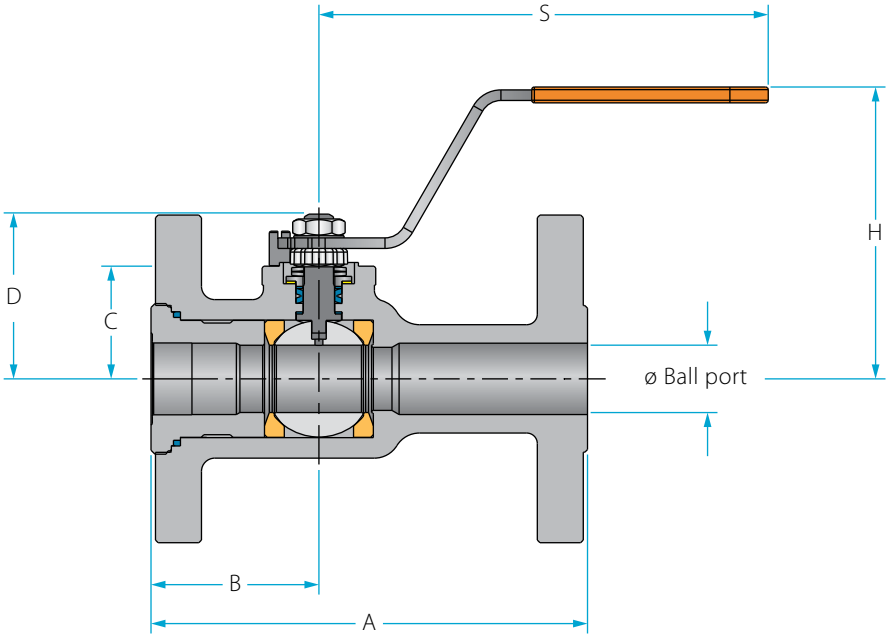
[2] F31P/F32P Series is Habonim's firesafe valve design without the Graphite free HermetiX™ stem seal construction.

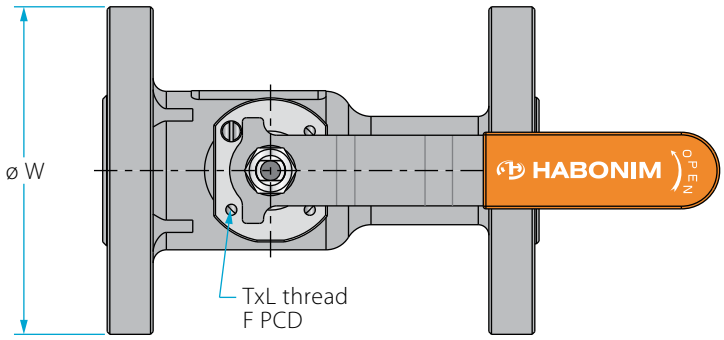
Item	Description	Material specification	Qty.
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	C.st B18 ZP	1
13	Tab lock washer	A240 304	1
14	Handle	C.St. Zinc plate, A240 316L	1
14A	Stop plate	C.St. 1.0402 Zinc plate, A240 430	1
14B	Wrench head	Ductile Iron A536 Gr. 65-45-12, A216 WCB, A351 CF8M	1
16	Wrench bolt	EN3506-1 A2-70/A4-80, A193 Gr B8/B8M	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	2
21	Antistatic plunger	A479 304	2
23	Tag (not shown)	A167 304	1

* Repair kit components

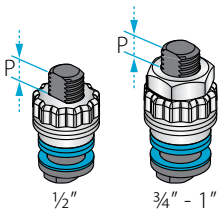
Size ½"-1" | DN15-DN25 | ANSI Class 150/300 | 73W/74W, F73P/F74P[(2)] Series

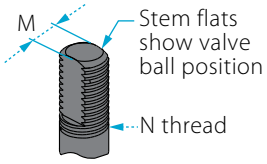
Valve dimensions





Preparation for actuation

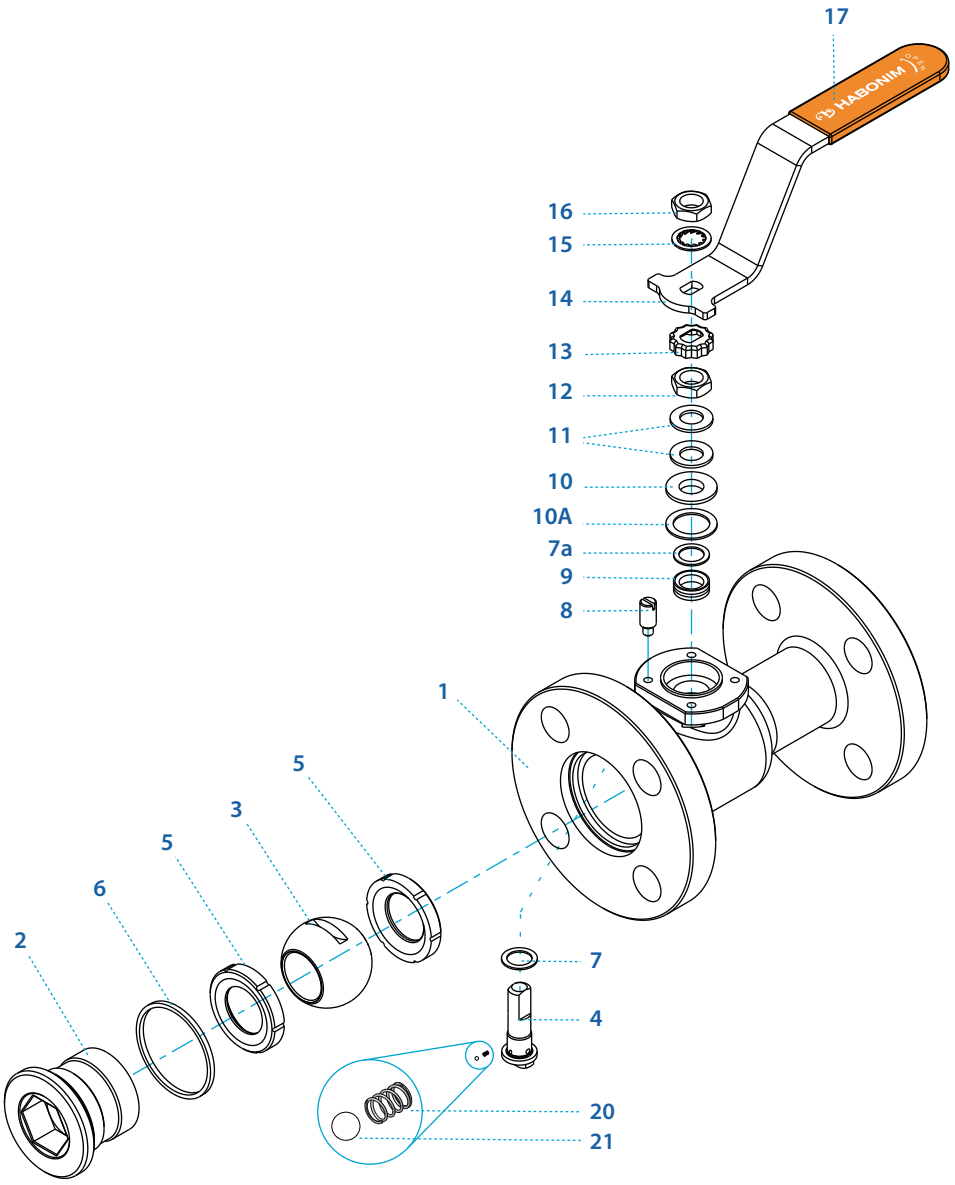




Std. port	Unit	Ball port	A		B	C	D	H	S	ØW		M	N	P	F		TxL	Weight kg/lb		Kv
			150	300						150	300							150	300	Cv
DN15	mm	14.30	108.00	140.00	47.00	31.40	40.50	94.00	151.00	89.00	95.00	5.54	3⁄8" UNF	6.65	(F03)	36.00	M5x10	1.80	2.30	28
½"	inch	0.56	4.25	5.51	1.85	1.24	1.59	3.70	5.95	3.50	3.74	0.22		0.26		1.42		4.00	5.10	32
DN20	mm	20.60	117.00	152.00	57.00	38.20	55.60	103.50	170.00	98.00	117.00	7.54	7⁄16" UNF	7.40	(F04)	42.00	M5x10	2.20	3.30	46
¾"	inch	0.81	4.61	5.98	2.24	1.50	2.19	4.08	6.69	3.86	4.61	0.30		0.29		1.65		4.80	7.30	53
DN25	mm	25.40	127.00	165.00	62.00	42.70	60.30	108.00	170.00	108.00	124.00	7.54	7⁄16" UNF	7.40	(F04)	42.00	M5x10	3.20	4.60	80
1"	inch	1.00	5.00	6.50	2.44	1.68	2.37	4.25	6.69	4.25	4.88	0.30		0.29		1.65		7.00	10.10	93

Size ½"-1" | DN15-DN25 | ANSI Class 150/300 | 73W/74W, F73P/F74P[2] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	Insert	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	RPTFE, CF PTFE, CF PEEK, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	Graphite	1
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1

Item	Description	Material specification	Qty.
7a**	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A194 8M, EN3506-2 A4-80	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

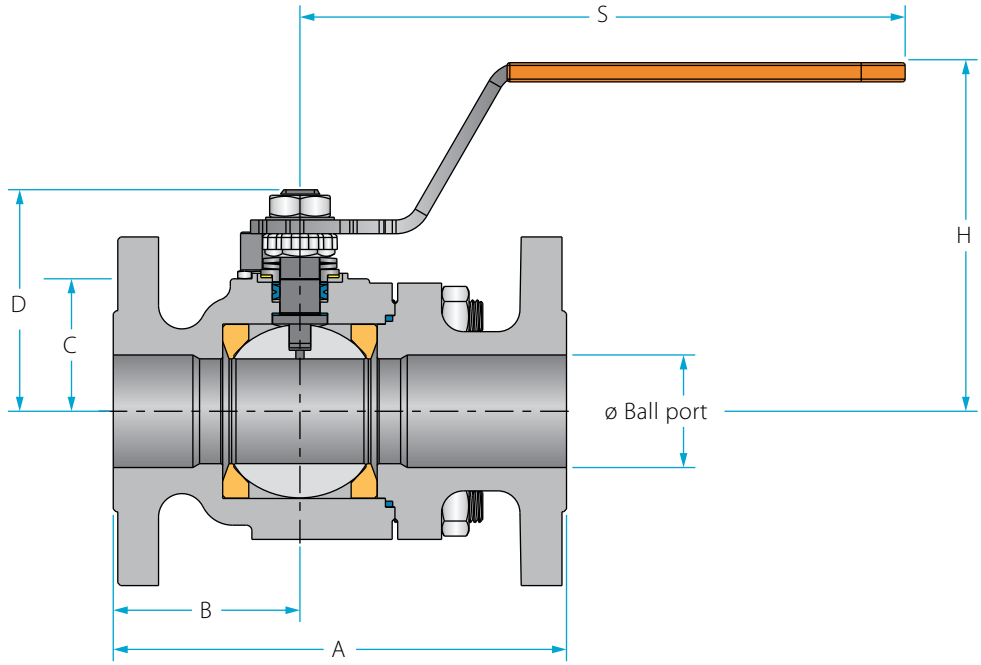
* Repair kit components

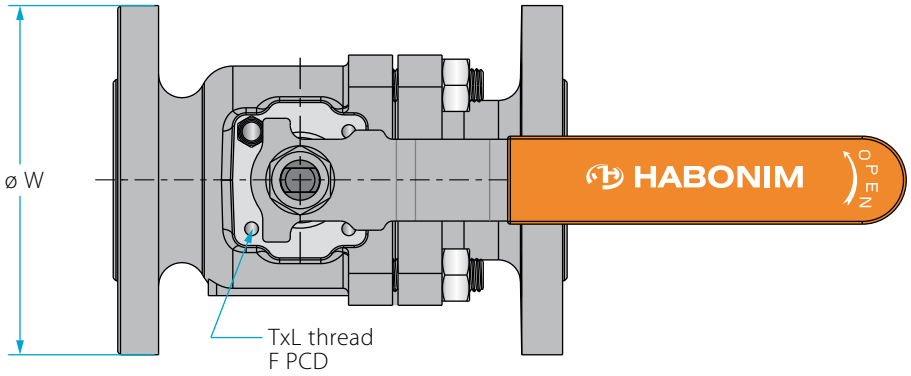
[1] This material can only be used as part of the 73P/76P design.

[2] F73P/F74P Series is Habonim's firesafe valve design without the Graphite free HermetiX™ stem seal construction.

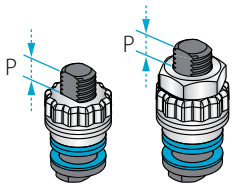
Size 1½"-2" | DN40-DN50 | ANSI Class 150/300 | 73W/74W, F73P/F74P(2) Series

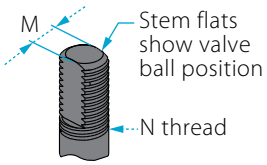
Valve dimensions





Preparation for actuation

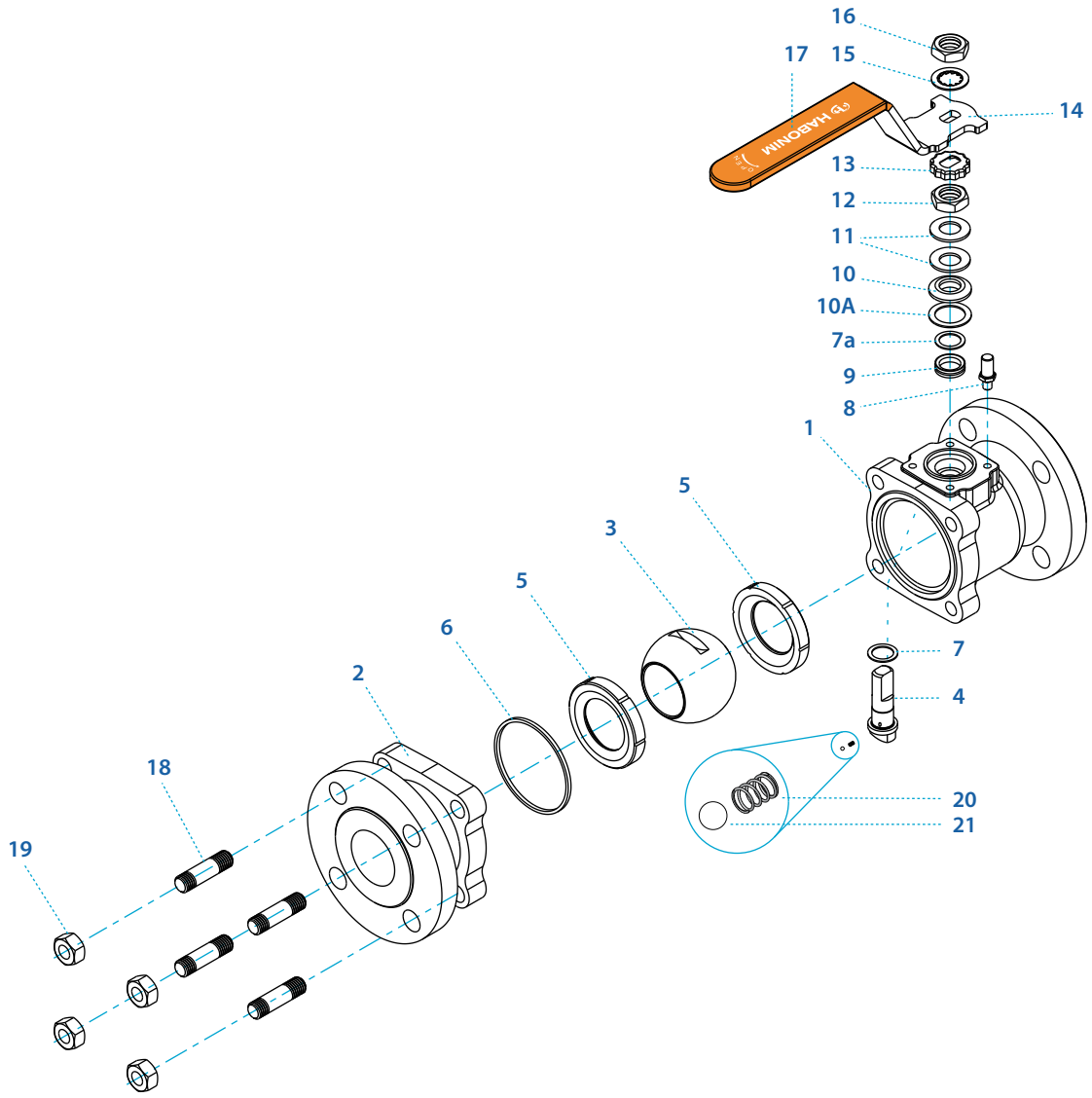




Std. port	Unit	Ball port	A		B		C	D	H	S	ØW		M	N	P	F		TxL	Weight kg/lb		Kv
			150	300	150	300					150	300							150	300	Cv
DN40	mm	38.10	165.00	190.00	97.00	110.00	48.30	77.80	124.00	220.50	127.00	156.00	8.71	9/16" UNF	19.6	(F05)	50.00	M6x12	6.60	9.80	220
1½"	inch	1.50	6.50	7.50	3.82	4.33	1.90	3.06	4.88	6.68	5.00	6.14	0.34		0.77		1.97		14.50	21.50	255
DN50	mm	50.00	178.00	216.00	109.00	141.00	70.00	88.00	134.20	220.50	152.00	165.00	8.71	9/16" UNF	19.6	(F07)	70.00	M8x12	13.00	15.00	430
2"	inch	2.00	7.00	8.50	4.29	5.55	2.75	3.46	5.28	6.68	5.98	6.50	0.34		0.77		2.76		28.60	33.00	499

Size 1½"-2" | DN40-DN50 | ANSI Class 150/300 | 73W/74W, F73P/F74P[2] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	End	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	RPTFE, CF PTFE, CF PEEK, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	Graphite	1
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1

Item	Description	Material specification	Qty.
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A193 B8, B8A	1
17	Sleeve	PVC	1
18	Body bolts	A193 B8, EN3506-1 A2-70	4
19	Body nuts	A194 8M, EN3506-2 A4-80	4
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

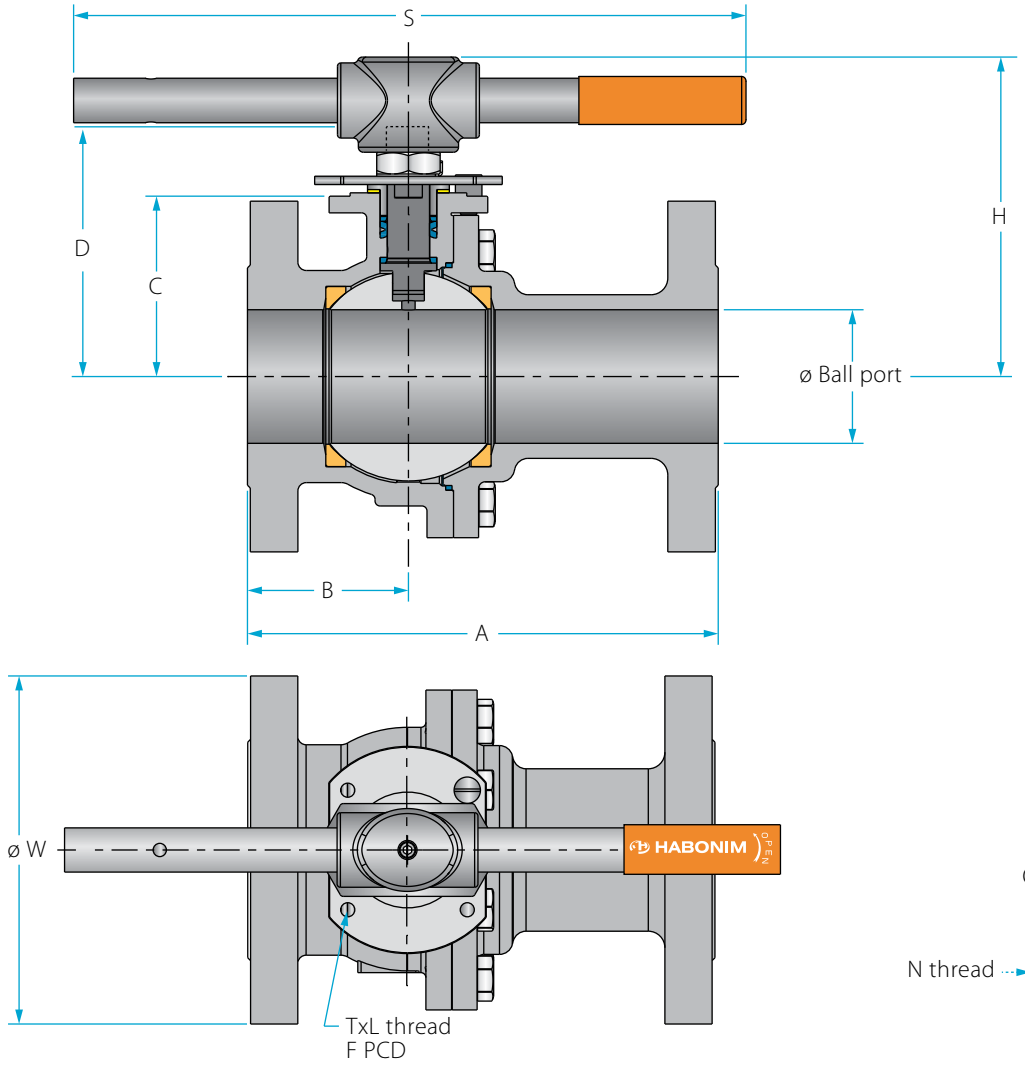
[1] This material can only be used as part of the 73P/74P design.

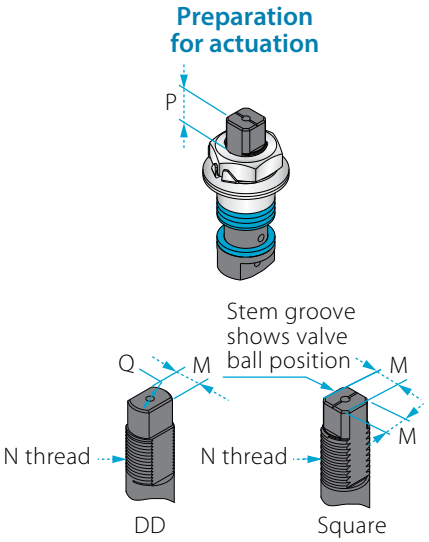
[2] F73P/F74P Series is Habonim's firesafe valve design without the Graphite free HermetiX™ stem seal construction.

* Repair kit components

Size 3"-8" | DN80-DN200 | ANSI Class 150/300 | 73W/74W, F73P/F74P[2] Series

Valve dimensions



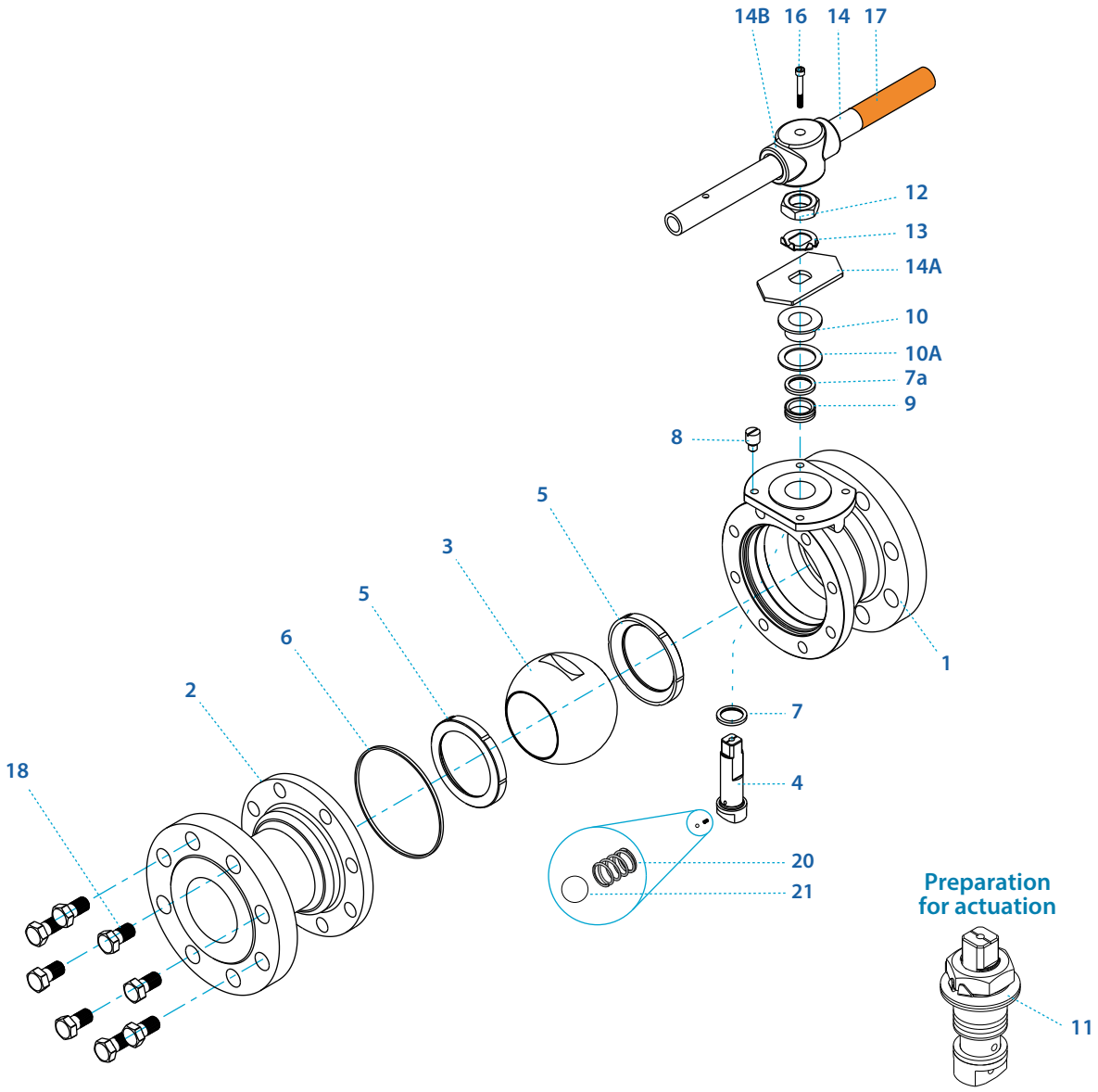


Std. port	Unit	Ball port	A		B		C	D	H	S	ØW		M	M -DD	N	P	Q	F		TxL	Weight kg/lb		Kv
			150	300	150	300					150	300									150	300	Cv
DN80	mm	80.00	203.00	282.50	77.50	96.40	108.00	154.60	194.80	400.00	191.00	210.00	18.90	15.90	1"-14 UNS-2A	16.70	22.70	(F10)	102.00	M10X20	22.00	28.20	1111
3"	inch	3.15	7.99	11.12	3.05	3.80	4.25	6.09	7.67	15.75	7.52	8.27	0.74	0.63		0.66	0.89		4.02		48.50	62.20	1300
DN100	mm	100.00	228.50	304.80	84.50	104.50	124.00	210.80	211.00	610.00	230.00	254.00	18.90	15.90	1"-14 UNS-2A	16.70	23.00	(F10)	102.00	M10X20	39.00	44.50	2051
4"	inch	3.94	9.00	12.00	3.33	4.11	4.88	8.30	8.31	24.02	9.06	10.00	0.74	0.63		0.66	0.89		4.02		86.00	98.10	2400
DN150	mm	150.00	394.00	403.50	163.50	174.50	179.00	248.50	308.00	916.00	279.40	328.00	28.45	23.75	1½"-12 UNF-2A	26.20	23.00	(F12)	125.00	M12X20	82.00	100.00	4615
6"	inch	5.91	15.51	15.89	6.44	6.87	7.05	9.78	12.13	36.06	11.00	12.91	1.12	0.94		1.03	0.91		4.92		180.80	220.50	5400
DN200	mm	200.00	457.20	502.00	242.50	241.00	241.00	353.70	-	-	460.00	460.00	35.92	35.92	2"-8 UN-2A	37.50	32.00	(F14)	140.00	M16X24	190.00	225.00	7949
8"	inch	7.87	18.00	19.76	9.55	9.49	9.49	13.93	-	-	18.11	18.11	1.41	1.41		1.48	1.26		5.51		418.90	496.00	9300

[-] Due to high valve torque, pipe handle cannot be used. A manual gear or automation means should be used to operate the valve.

Size 3"- 8" | DN80-DN200 | ANSI Class 150/300 | 73W/74W, F73P/F74P[2] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	End	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, B574 N06022, A479 S31254, A479 S31600, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	RPTFE, CF PTFE, CF PEEK, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	Graphite	1
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1

[1] This material can only be used as part of the 73P/74P design.

[2] F73P/F74P Series is Habonim's firesafe valve design without the Graphite free HermetiX™ stem seal construction.

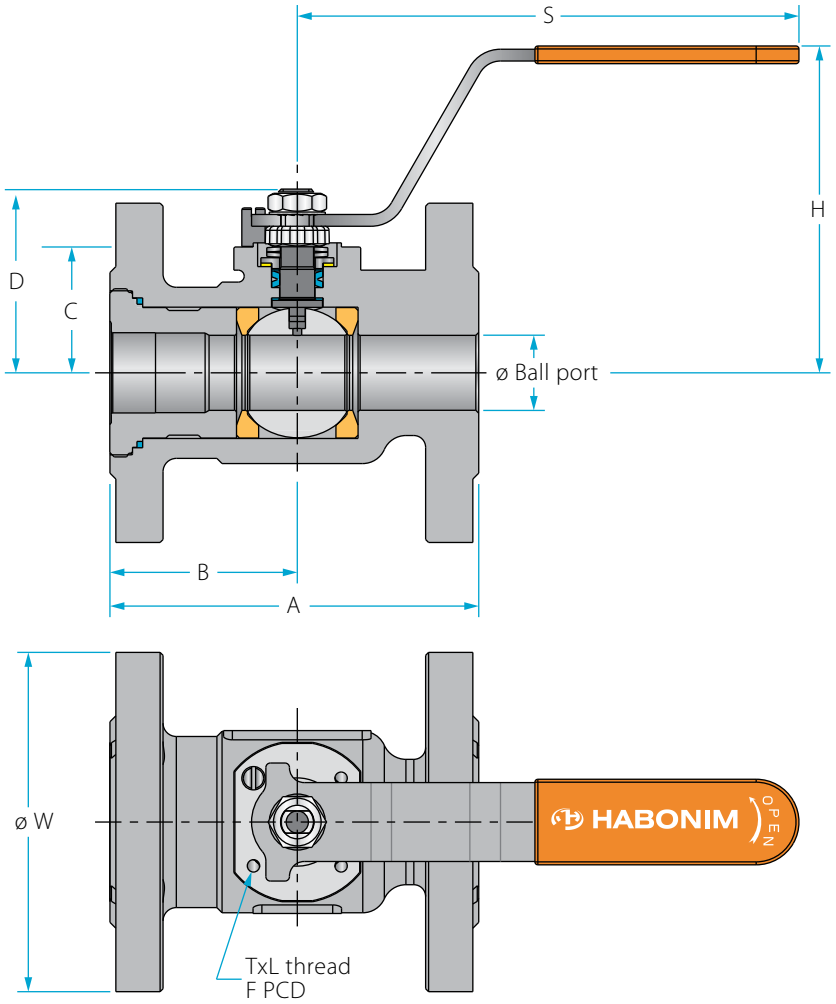
Item	Description	Material specification	Qty.
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	C.st B18 ZP	1
13	Tab lock washer	A240 304	1
14**	Handle	C.St. Zinc plate, A240 316L	1
14A	Stop plate	C.St. 1.0402 Zinc plate, A240 430	1
14B	Wrench head	Ductile Iron A536 Gr. 65-45-12, A216 WCB, A351 CF8M	1
16	Wrench bolt	EN3506-1 A2-70/A4-80, A193 Gr B8/B8M	1
17	Sleeve	PVC	1
18	Body bolts	C.St. 8.8 ZP, S.St. A2-70	8-12
20	Antistatic spring	A313 302	2
21	Antistatic plunger	A479 304	2
23	Tag (not shown)	A167 304	1

* Repair kit components

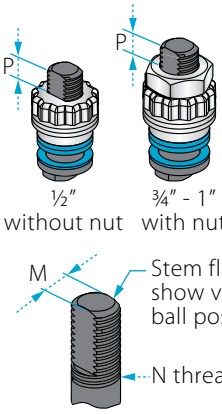
** Gear operator should be used for size 8" DN200 (handle components are not included)

Size ½"-1" | Class DN15-DN25 | DIN PN40 | 78W, F78P(2) Series

Valve dimensions



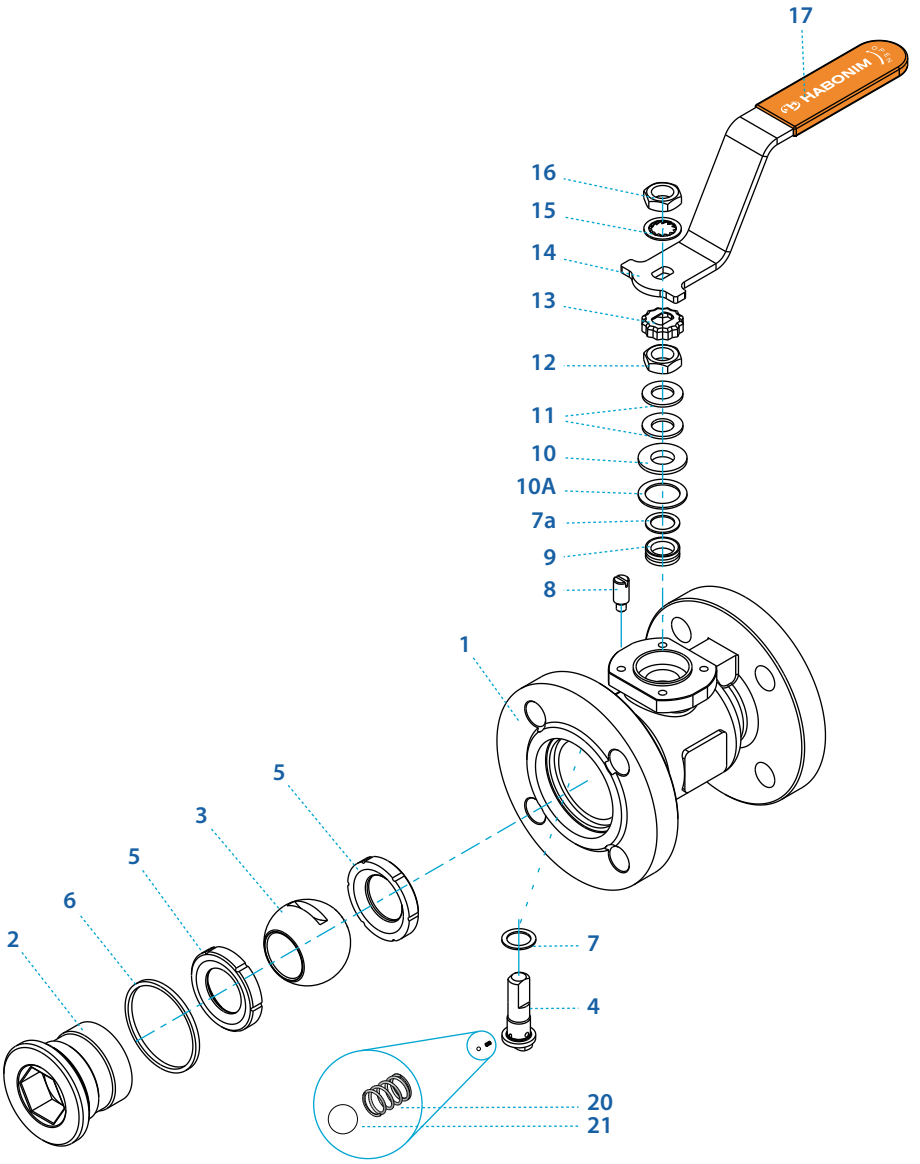
Preparation for actuation



Std. port	Unit	Ball port	A		B	C	D	H	M	N	P	S	ØW	F		TxL	Weight kg/lb		Kv
			F1	F4													F1	F4	Cv
DN15	mm	14.30	130.00	115.00	48.00	31.50	40.50	98.60	5.54	⅜" UNF	6.65	160.00	95.00	(F03)	36.00	M5x10	2.20	2.10	28
½"	inch	0.56	5.12	4.53	1.89	1.24	1.59	3.88	0.22		0.26	6.30	3.74		1.42		4.80	4.60	32
DN20	mm	20.60	150.00	120.00	58.00	38.30	56.50	105.00	7.54	7/16" UNF	7.40	170.00	105.00	(F04)	42.00	M5x10	3.20	3.00	46
¾"	inch	0.81	5.91	4.72	2.28	1.51	2.22	4.13	0.30		0.29	6.69	4.13		1.65		7.00	6.60	53
DN25	mm	25.40	160.00	125.00	63.50	41.80	61.00	108.00	7.54	7/16" UNF	7.40	170.00	115.00	(F04)	42.00	M5x10	4.20	4.00	80
1"	inch	1.00	6.30	4.92	2.50	1.65	2.40	4.25	0.30		0.29	6.69	4.53		1.65		9.20	8.80	93

Size ½"-1" | Class DN15-DN25 | DIN PN40 | 78W, F78P[2] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	X 2 CrNiMo 17 13 2 (1.4404), GS-C25 (DIN1.0619), NiCr20CuMo (2.4660), NiCu30Fe (2.4360), NiCr16Mo15W(2.4819), NiCr21Mo14W(2.4602), X1CrNiMoCuN20-18-7 (1.4547), X2CrNiMoN 22-5-3 (1.4462), X2CrNiMoN25-7-4 (1.4410), A216 WCB, A351 CF8M	1
2	Plug		1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr.630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	RPTFE, CF PTFE, CF PEEK, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	Graphite	1
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
8	Stop pin	NiCr19NbMo (2.4668)	1

Item	Description	Material specification	Qty.
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A194 8M, EN3506-2 A4-80	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

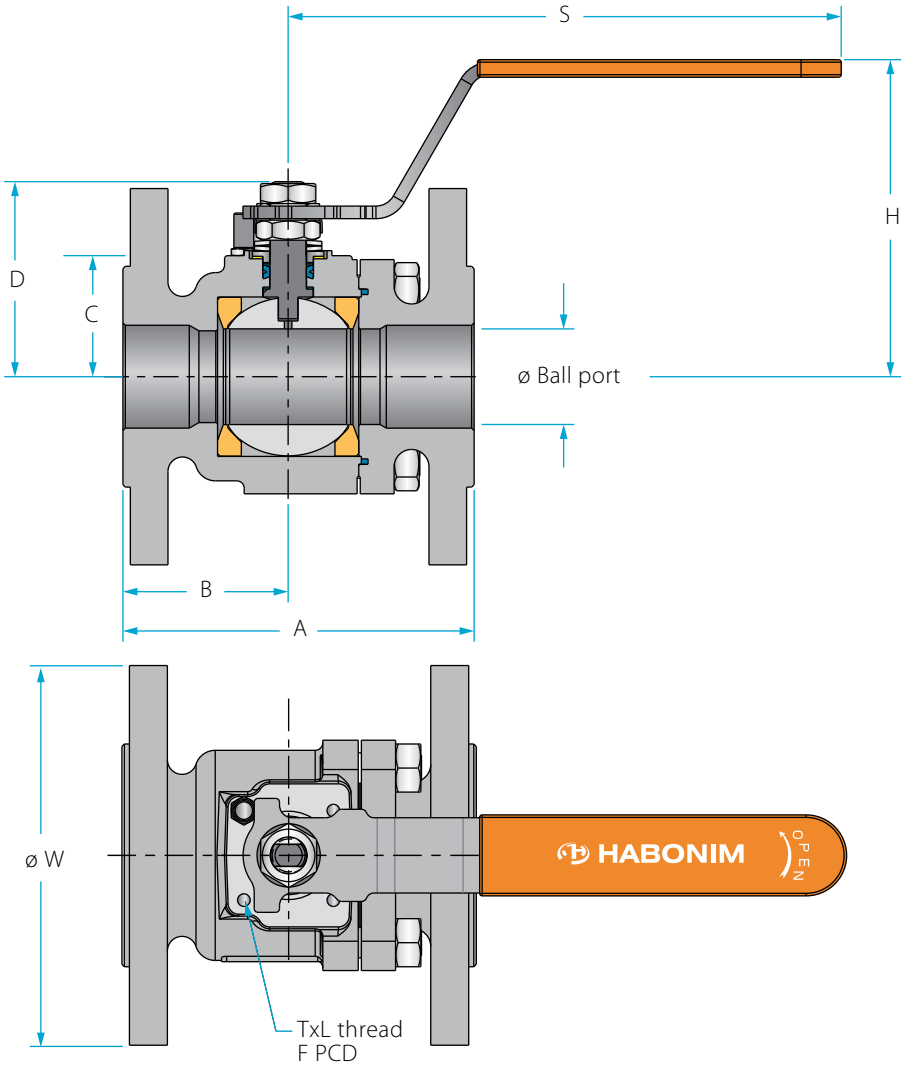
* Repair kit components

[1] This material can only be used as part of the 78P design.

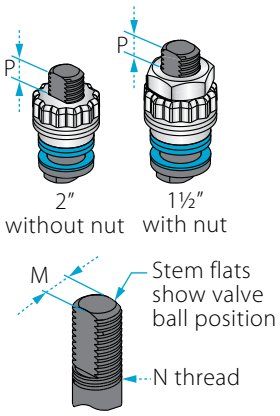
[2] F78P Series is Habonim's firesafe valve design without the Graphite free HermetiX™ stem seal construction.

Size 1½"-2" | DN40-DN50 | DIN PN40 | 78W, F78P(2) Series

Valve dimensions



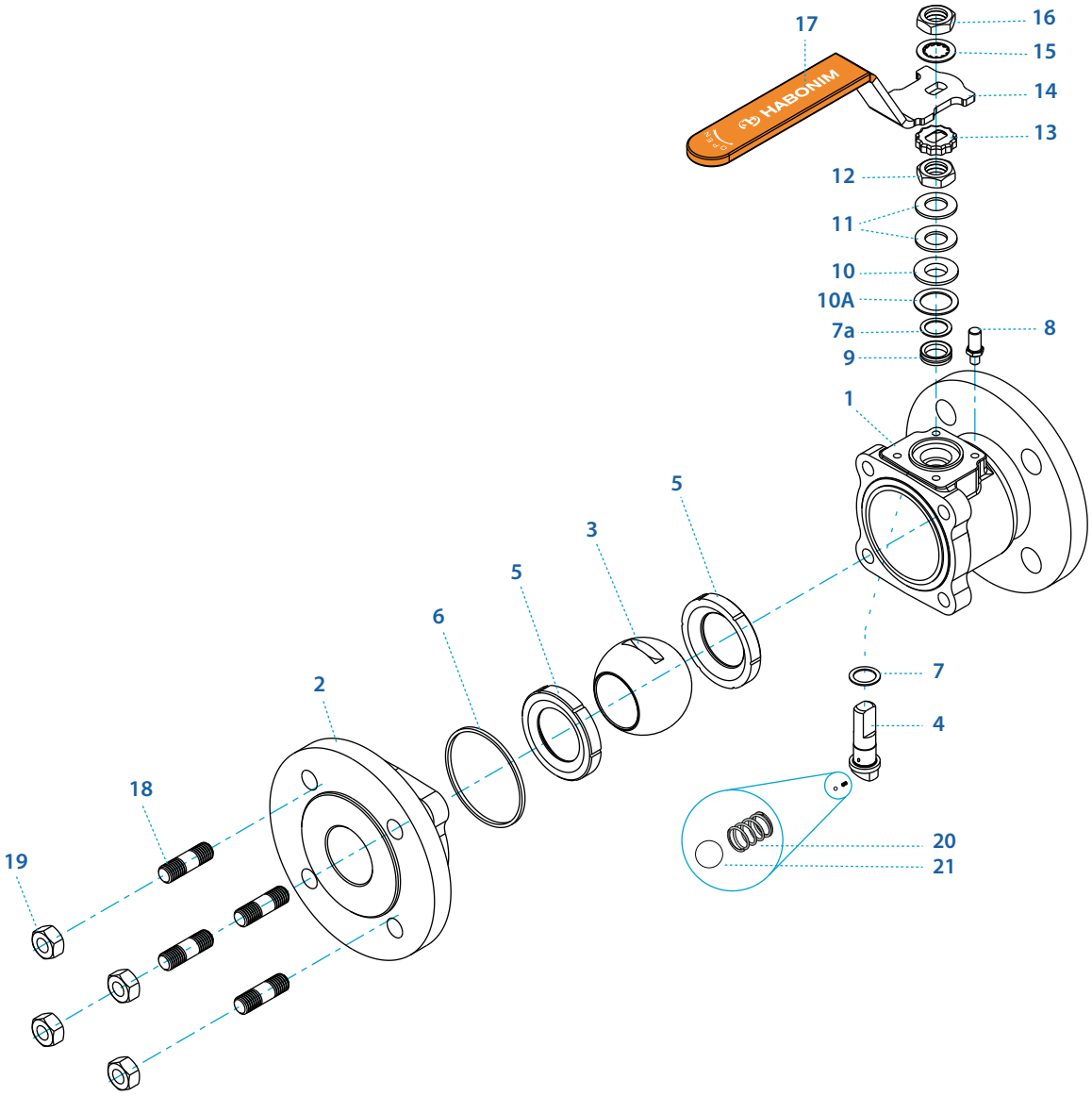
Preparation for actuation



Std. port	Unit	Ball port	A		C	B	D	H	S	ØW	M	N	P	F		TxL	Weight kg/lb		Kv
			F1	F4													F1 PN40	F4 PN40	Cv
DN40	mm	38.10	200.00	140.00	48.30	65.90	77.80	124.00	122.00	150.00	8.71	9/16" UNF	8.50	(F05)	50.00	M6x12	10.90	10.30	220
1½"	inch	1.50	7.87	5.51	1.90	2.59	3.06	4.88	4.81	5.91	0.34		0.33		1.97		24.00	22.70	255
DN50	mm	50.00	230.00	150.00	78.00	60.70	119.00	137.30	240.00	165.00	8.71	9/16" UNF	13.50	(F07)	70.00	M8x12	15.00	13.00	430
2"	inch	2.00	9.06	5.91	3.07	2.39	4.69	5.41	9.45	6.50	0.34		0.53		2.76		33.00	28.60	499

Size 1½"-2" | DN40-DN50 | DIN PN40 | 78W, F78P[2] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	X 2 CrNiMo 17 13 2 (1.4404), GS-C25 (DIN1.0619), NiCr20CuMo (2.4660), NiCu30Fe (2.4360), NiCr16Mo15W(2.4819), NiCr21Mo14W(2.4602), X1CrNiMoCuN20-18-7 (1.4547), X2CrNiMoN 22-5-3 (1.4462), X2CrNiMoN25-7-4 (1.4410), A216 WCB, A351 CF8M	1
2	End		1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	RPTFE, CF PTFE, CF PEEK, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	Graphite	1
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
8	Stop pin	A582 303	1

Item	Description	Material specification	Qty.
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A193 B8, B8A	1
17	Sleeve	PVC	1
18	Body bolts	A193 B8, EN3506-1 A2-70	4
19	Body nuts	A194 8M, EN3506-2 A4-80	4
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

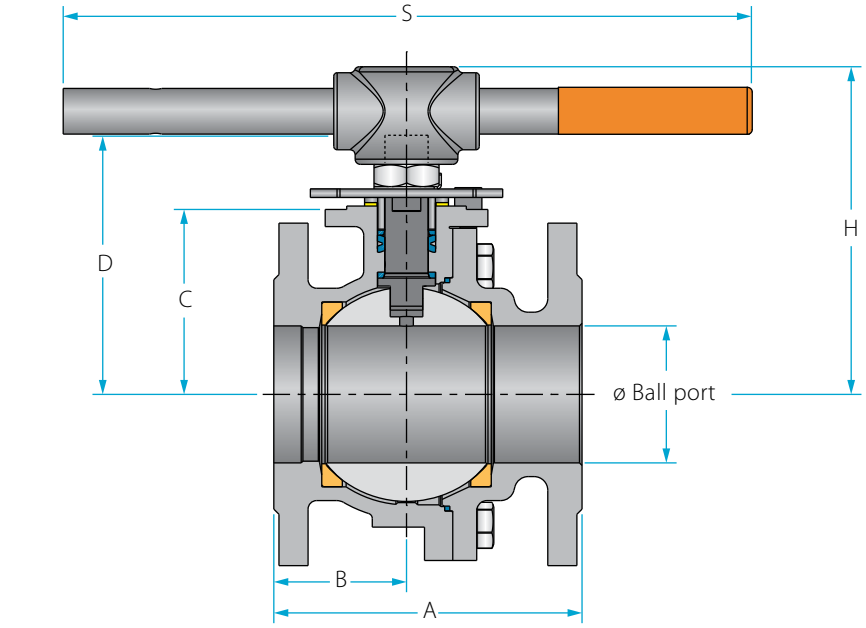
* Repair kit components

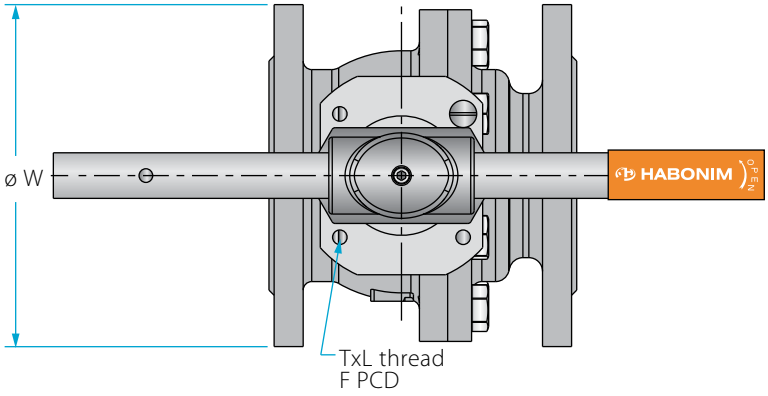
[1] This material can only be used as part of the 78P design.

[2] F78P Series is Habonim's firesafe valve design without the Graphite free HermetiX™ stem seal construction.

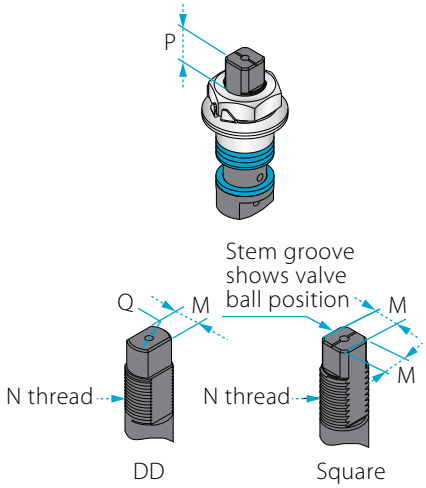
Size 3″-8″ | DN80-DN200 | DIN PN16 | 77W, F77P[2] Series

Valve dimensions





Preparation for actuation

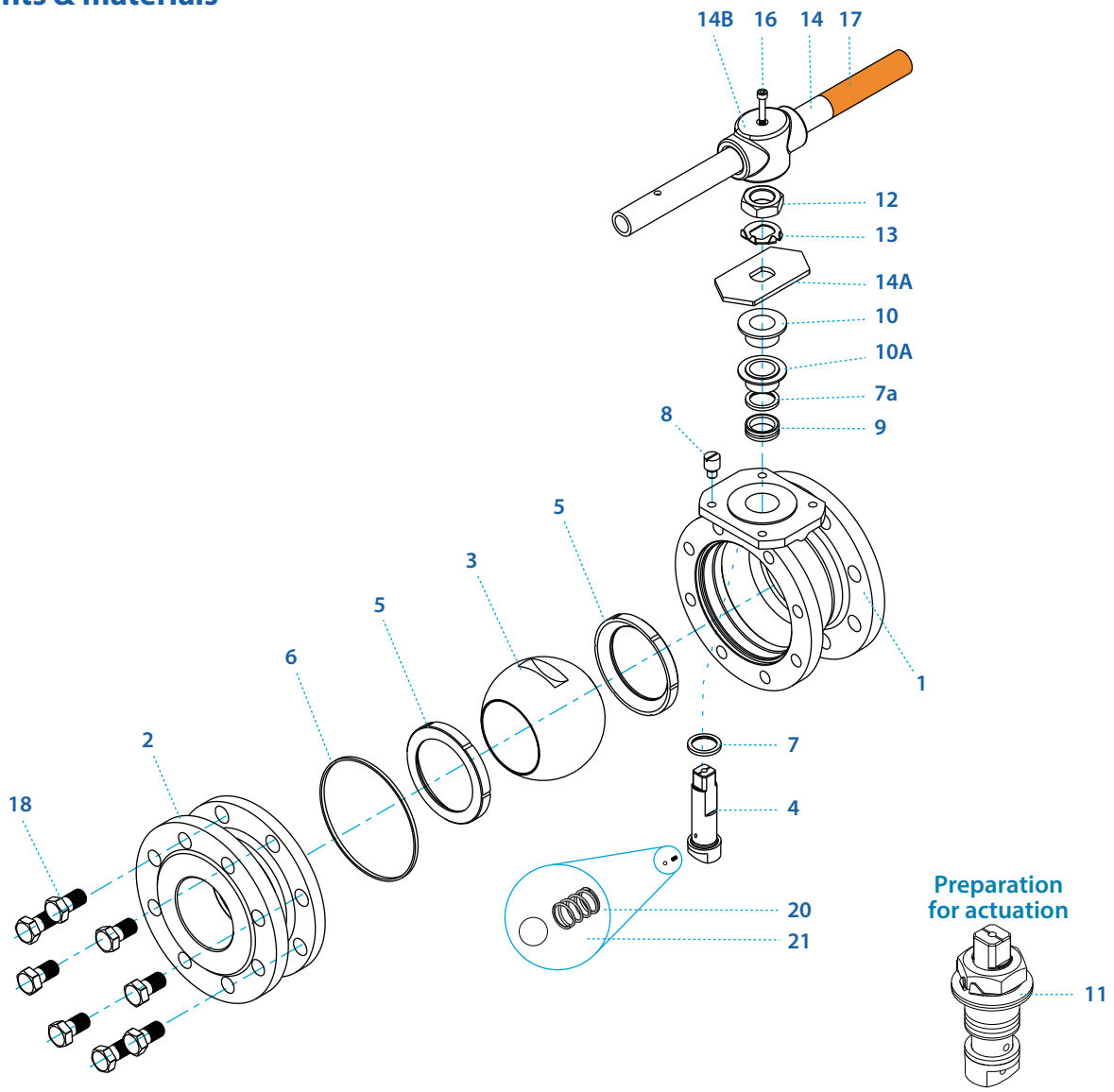


Std. port	Unit	Ball port	A		C	B	D	H	S	ØW	M	M DD	N	P	F		TxL	Weight kg/lb		Kv
			F5	F4														F5 PN16	F4 PN16	Cv
DN80	mm	80.00	-	180.00	108.00	77.50	162.00	194.80	300.00	200.00	18.90	15.90	1"-14 UNS-2A	16.70	(F10)	102.00	M10x20	-	24.00	1000
3"	inch	3.20	-	7.09	4.25	3.05	6.40	7.67	11.81	7.87	0.74	0.63		0.66		4.02		-	52.80	1160
DN100	mm	100.00	-	190.00	132.00	84.50	186.00	211.00	325.00	225.00	18.90	15.90	1"-14 UNS-2A	16.70	(F10)	102.00	M10x20	-	30.00	1830
4"	inch	3.94	-	7.48	5.20	3.33	7.32	8.31	12.80	8.86	0.74	0.63		0.66		4.02		-	66.00	2123
DN150	mm	150.00	350.00	-	178.00	163.50	236.00	308.00	362.00	328.00	28.45	23.75	1½"-12 UNF-2A	26.20	(F12)	125.00	M12x20	63.00	-	4380
6"	inch	5.91	13.78	-	7.01	6.44	9.29	12.13	14.25	12.91	1.12	0.94		1.03		4.92		139.00		5081
DN200	mm	200.00	400.00	-	226.00	243.00	286.00	-	-	395.00	35.92	35.92	2"-8 UN-2A	37.50	(F14)	140.00	M16x30	97.00	-	8070
8"	inch	7.87	15.75	-	8.91	9.55	11.26	-	-	15.55	1.41	1.41		1.48		5.51		213.00		9361

(-) Due to high valve torque, pipe handle cannot be used. A manual gear or automation means should be used to operate the valve.

Size 3"-8" | DN80-DN200 | DIN PN16 | 77W, F77P[2] Series

Components & materials



Item	Description	Material specification	Qty.
1	Body	X 2 CrNiMo 17 13 2 (1.4404), GS-C25 (DIN1.0619), NiCr20CuMo (2.4660), NiCu30Fe (2.4360), NiCr16Mo15W(2.4819), NiCr21Mo14W(2.4602), X1CrNiMoCuN20-18-7 (1.4547), X2CrNiMoN 22-5-3 (1.4462), X2CrNiMoN25-7-4 (1.4410), A216 WCB, A351 CF8M	1
2	End		1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	RPTFE, CF PTFE, CF PEEK, PVDF, DELRIN, PCTFE (KEL-F)	2
6*	Body seal	Graphite	1
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM[1], CF PTFE[1]	1
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1

Item	Description	Material specification	Qty.
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Tab lock washer	A240 304	1
14**	Handle	C.St. Zinc plate, A240 316L	1
14A	Stop plate	C.St. 1.0402 Zinc plate, A240 430	1
14B	Wrench Head	Ductile Iron A536 Gr. 65-45-12, A216 WCB, A351 CF8M	1
16	Wrench bolt	EN3506-1 A2-70/A4-80, A193 Gr B8/B8M	1
17	Sleeve	PVC	1
18	Body bolts	C.St. 8.8 ZP, S.St. A2-70	8-12
20	Antistatic spring	A313 302	2
21	Antistatic plunger	A479 304	2
23	Tag (not shown)	A167 304	1

* Standard items supplied in repair kits

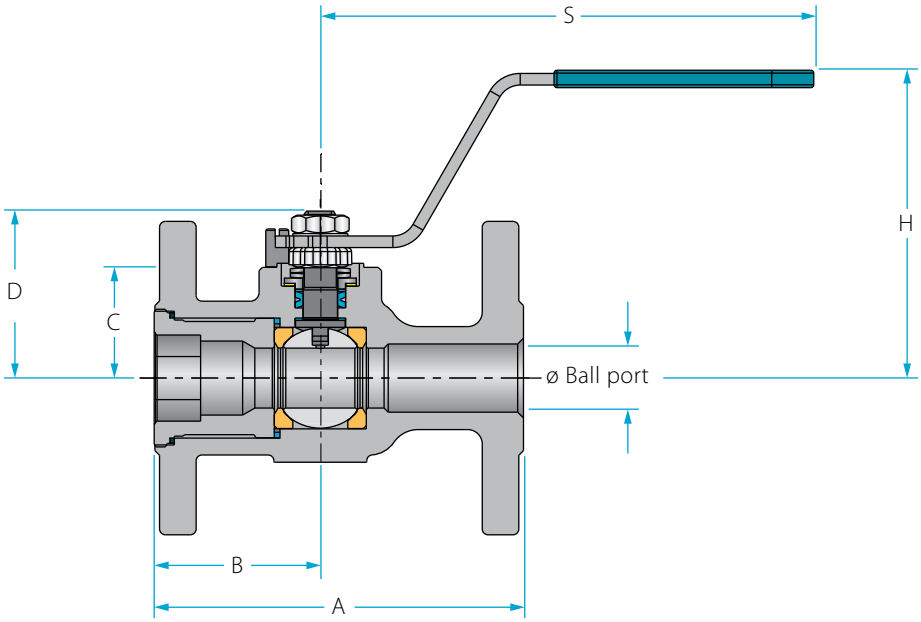
** Gear operator should be used for size 8" DN200 (handle components are not included)

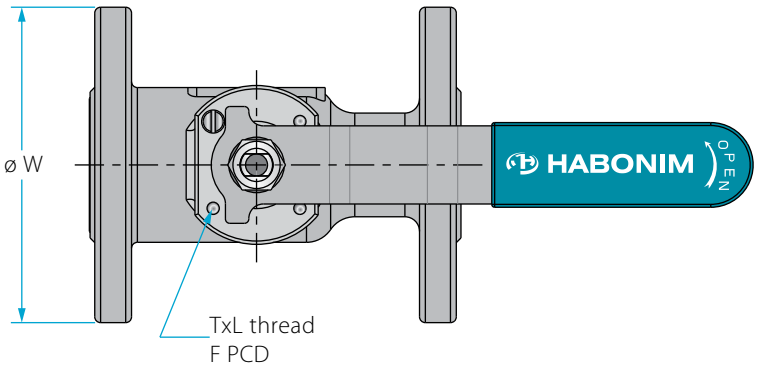
[1] This material can only be used as part of the 77P design.

[2] F77P Series is Habonim's firesafe valve design without the Graphite free HermetiX™ stem seal construction.

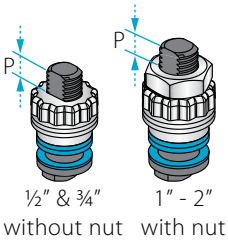
Size ½"-2" | DN15-DN50 | ANSI Class 150/300 | 31G/32G Series

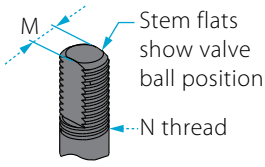
Valve dimensions





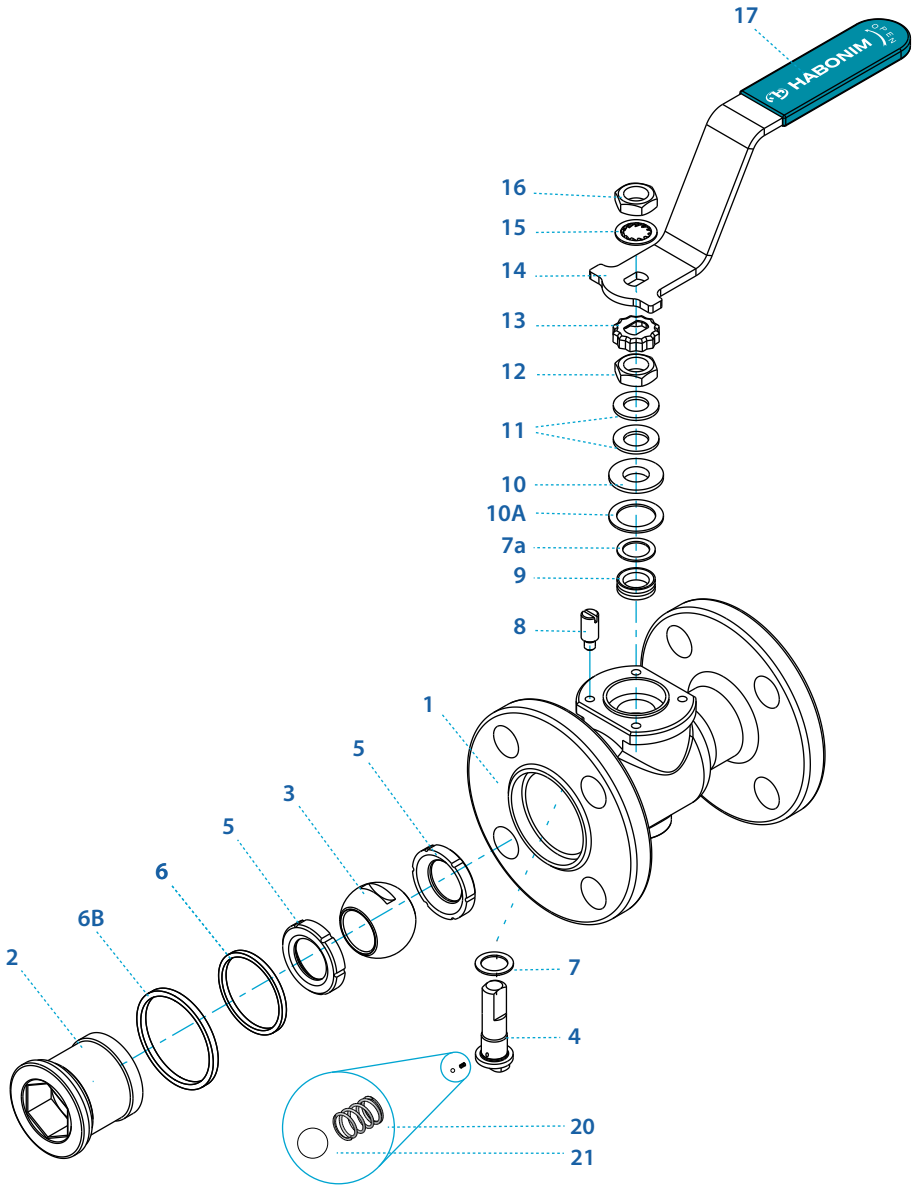
Preparation for actuation





Std. port	Unit	Ball port	A		B	C	D	H	S	W		M	N	P	F		TxL	Weight kg/lb		Cv
			150	300						150	300							150	300	Kv
DN15	mm	11.15	108.00	140.00	46.00	29.00	38.00	92.00	151.00	88.90	95.25	5.54	3/8 - UNF	6.65	(F03)	36.00	M5x10	1.70	2.40	6.9
½"	inch	0.44	4.25	5.50	1.81	1.14	1.50	3.62	5.94	3.50	3.75	0.22		0.26		1.42		3.80	5.30	8.0
DN20	mm	14.30	117.00	152.00	49.00	31.40	40.30	94.00	151.00	98.55	163.07	5.54	3/8 - UNF	6.65	(F03)	36.00	M5x10	2.30	3.30	10
¾"	inch	0.56	4.61	6.00	1.93	1.24	1.59	3.70	5.94	3.88	6.42	0.22		0.26		1.42		5.10	7.30	12
DN25	mm	20.60	127.00	165.00	57.00	38.20	55.60	103.50	170.00	107.95	123.95	7.54	7/16 - UNF	7.40	(F04)	42.00	M5x10	3.10	4.60	28
1"	inch	0.81	5.00	6.50	2.25	1.50	2.19	4.07	6.69	4.25	4.88	0.30		0.29		1.65		7.30	10.20	32
DN40	mm	31.80	165.00	190.00	62.00	43.60	73.10	119.20	220.50	127.00	155.52	8.71	9/16 - UNF	8.50	(F05)	50.00	M6x12	5.50	8.70	69
1½"	inch	1.25	6.50	7.50	2.44	1.72	2.88	4.70	8.68	5.00	6.10	0.34		0.33		1.97		12.20	19.30	80
DN50	mm	38.20	178.00	216.00	68.00	48.30	77.80	123.90	220.50	152.40	165.10	8.71	9/16 - UNF	8.50	(F05)	50.00	M6x12	8.10	10.80	102
2"	inch	1.50	7.00	8.50	2.67	1.90	3.06	4.88	8.68	6.00	6.50	0.34		0.33		1.97		18.00	24.00	118

Components & materials



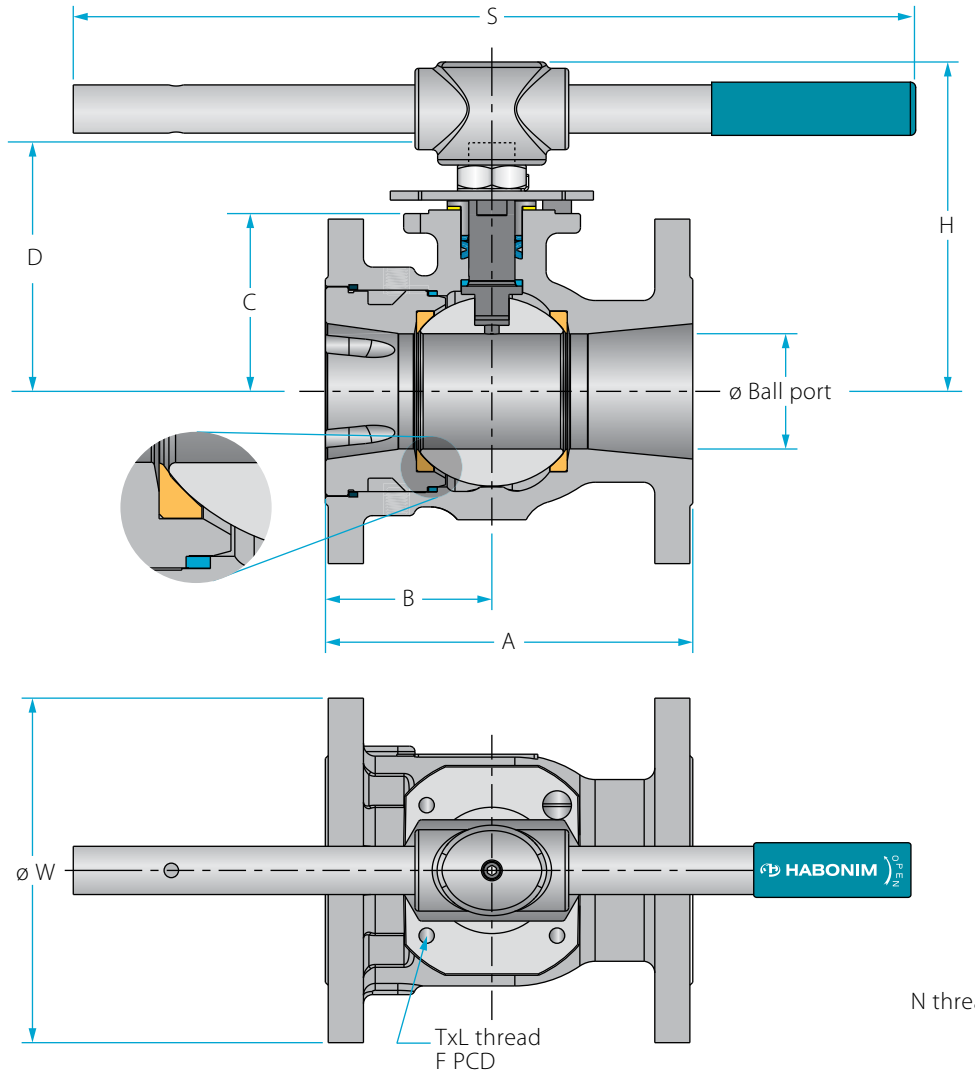
Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	Plug	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	TFM, PTFE, Virgin PEEK, PCTFE (KEL-F)	2
6*	Primary body seal	PTFE	1
6B*	Secondary body seal	Graphite	1
7*	Stem thrust seal	VIRGIN PEEK, PCTFE (KEL-F)	1

Item	Description	Material specification	Qty.
7a*	Anti-abrasion ring	VIRGIN PEEK, PCTFE (KEL-F)	1
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A194 8M, EN3506-2 A4-80	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

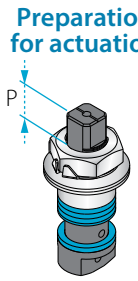
* Repair kit components

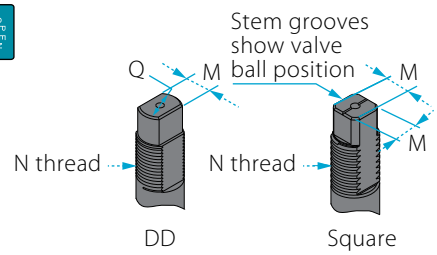
Size 3″-8″ | DN80-DN200 | ANSI Class 150/300 | 31G/32G Series

Valve dimensions



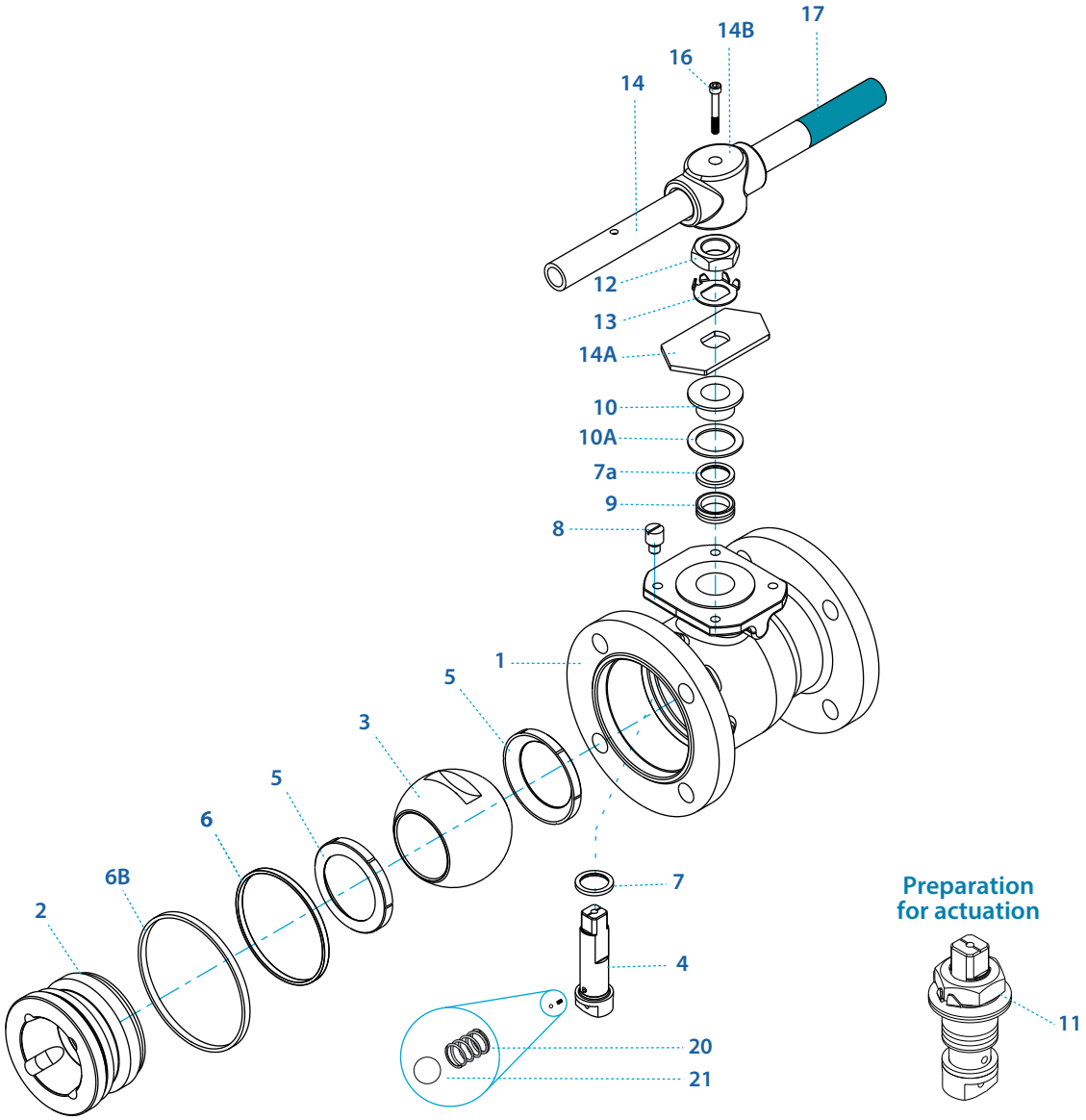
Preparation for actuation





Std. port	Unit	Ball port	A		B	C	D	H	S	W		M	M-DD	N	P	Q	F		TxL	Weight kg/lb		Kv
			150	300						150	300									150	300	Cv
DN80	mm	63.50	203.00	284.00	92.00	98.40	145.00	185.10	400.00	190.50	209.55	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10x20	18.00	22.70	300
3″	inch	2.50	8.00	11.18	3.62	3.88	5.72	7.28	15.75	7.50	8.25	0.74	0.63	UNS-2A	0.66	0.89		4.02		40.00	50.40	348
DN100	mm	82.60	229.00	305.00	102.00	114.10	161.00	201.00	610.00	228.60	254.00	18.90	15.90	1"-14	16.70	22.70	(F10)	102.00	M10x20	28.20	36.30	615
4″	inch	3.25	9.00	12.00	4.00	4.49	6.34	7.91	24.01	9.00	10.00	0.74	0.63	UNS-2A	0.66	0.89		4.02		62.80	80.60	713
DN150	mm	111.10	267.00	403.20	108.00	157.40	226.00	285.90	916.00	279.40	317.50	28.45	23.75	1½"-12	26.20	35.20	(F12)	125.00	M12x20	41.00	69.00	872
6″	inch	4.38	10.50	15.88	4.25	6.20	8.91	11.25	36.08	11.00	12.50	1.12	0.94	UNF-2A	1.03	1.39		4.92		91.00	153.00	1012
DN200	mm	144.40	292.00	419.00	163.50	185.20	254.00	313.60	916.00	342.90	381.00	28.45	23.75	1½"-12	26.20	35.20	(F12)	125.00	M12x20	82.00	105.00	1552
8″	inch	5.68	11.50	16.50	5.37	7.30	10.00	12.34	36.08	13.50	15.00	1.12	0.94	UNF-2A	1.03	1.39		4.92		182.00	233.00	1800

Components & materials



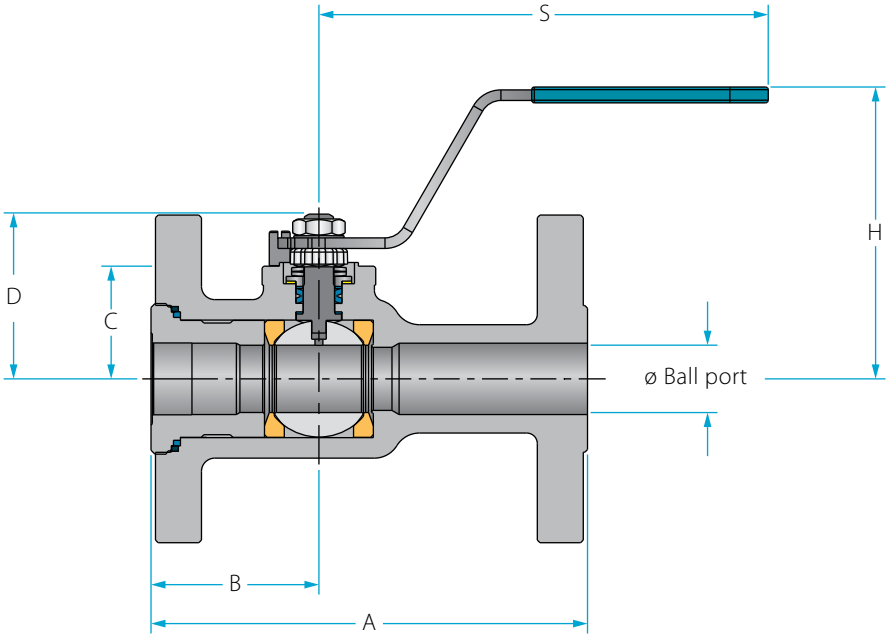
Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	Plug	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	TFM, PTFE, Virgin PEEK, PCTFE (KEL-F)	2
6*	Primary body seal	PTFE	1
6B*	Secondary body seal	Graphite	1
7*	Stem thrust seal	VIRGIN PEEK, PCTFE (KEL-F)	1
7a*	Anti-abrasion ring	VIRGIN PEEK, PCTFE (KEL-F)	1

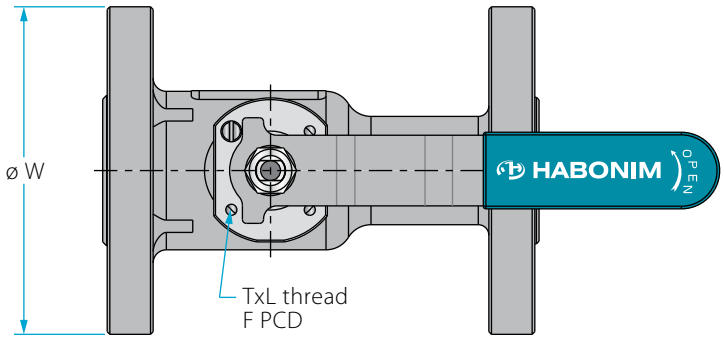
Item	Description	Material specification	Qty.
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	C.st B18 ZP	1
13	Tab lock washer	A240 304	1
14	Handle	C.St. Zinc plate, A240 316L	1
14A	Stop plate	C.St. 1.0402 Zinc plate, A240 430	1
14B	Wrench head	Ductile Iron A536 Gr. 65-45-12, A216 WCB, A351 CF8M	1
16	Wrench bolt	EN3506-1 A2-70/A4-80, A193 Gr B8/B8M	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	2
21	Antistatic plunger	A479 304	2
23	Tag (not shown)	A167 304	1

* Repair kit components

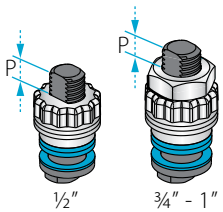
Size ½"-1" | DN15-DN25 | ANSI Class 150/300 | 73G/74G Series

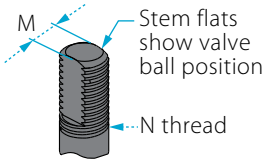
Valve dimensions





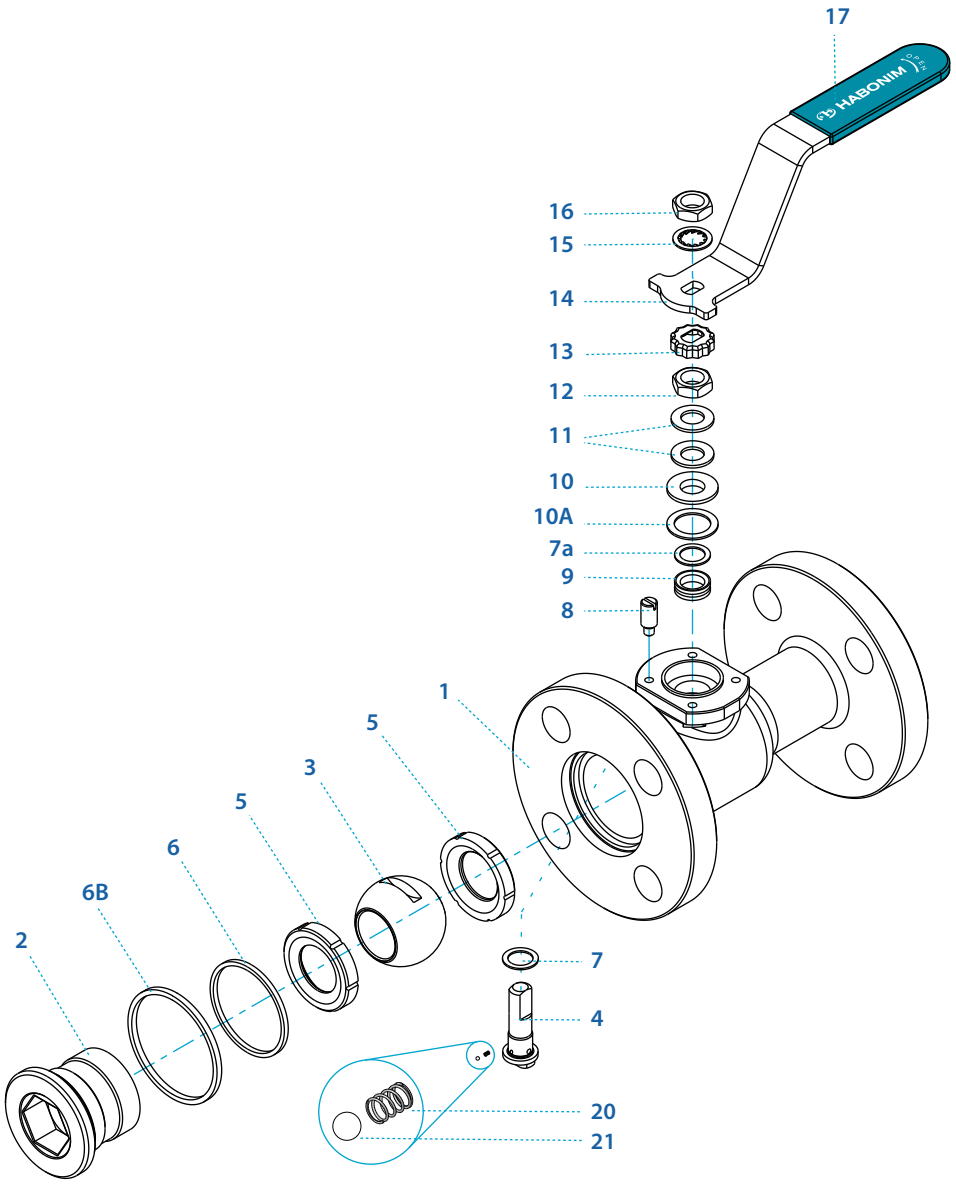
Preparation for actuation





Std. port	Unit	Ball port	A		B	C	D	H	S	ØW		M	N	P	F		TxL	Weight kg/lb		Kv
			150	300						150	300							150	300	Cv
DN15	mm	14.30	108.00	140.00	47.00	31.40	40.50	94.00	151.00	89.00	95.00	5.54	3⁄8" UNF	6.65	(F03)	36.00	M5x10	1.80	2.30	28
½"	inch	0.56	4.25	5.51	1.85	1.24	1.59	3.70	5.95	3.50	3.74	0.22		0.26		1.42		4.00	5.10	32
DN20	mm	20.60	117.00	152.00	57.00	38.20	55.60	103.50	170.00	98.00	117.00	7.54	7⁄16" UNF	7.40	(F04)	42.00	M5x10	2.20	3.30	46
¾"	inch	0.81	4.61	5.98	2.24	1.50	2.19	4.08	6.69	3.86	4.61	0.30		0.29		1.65		4.80	7.30	53
DN25	mm	25.40	127.00	165.00	62.00	42.70	60.30	108.00	170.00	108.00	124.00	7.54	7⁄16" UNF	7.40	(F04)	42.00	M5x10	3.20	4.60	80
1"	inch	1.00	5.00	6.50	2.44	1.68	2.37	4.25	6.69	4.25	4.88	0.30		0.29		1.65		7.00	10.10	93

Components & materials



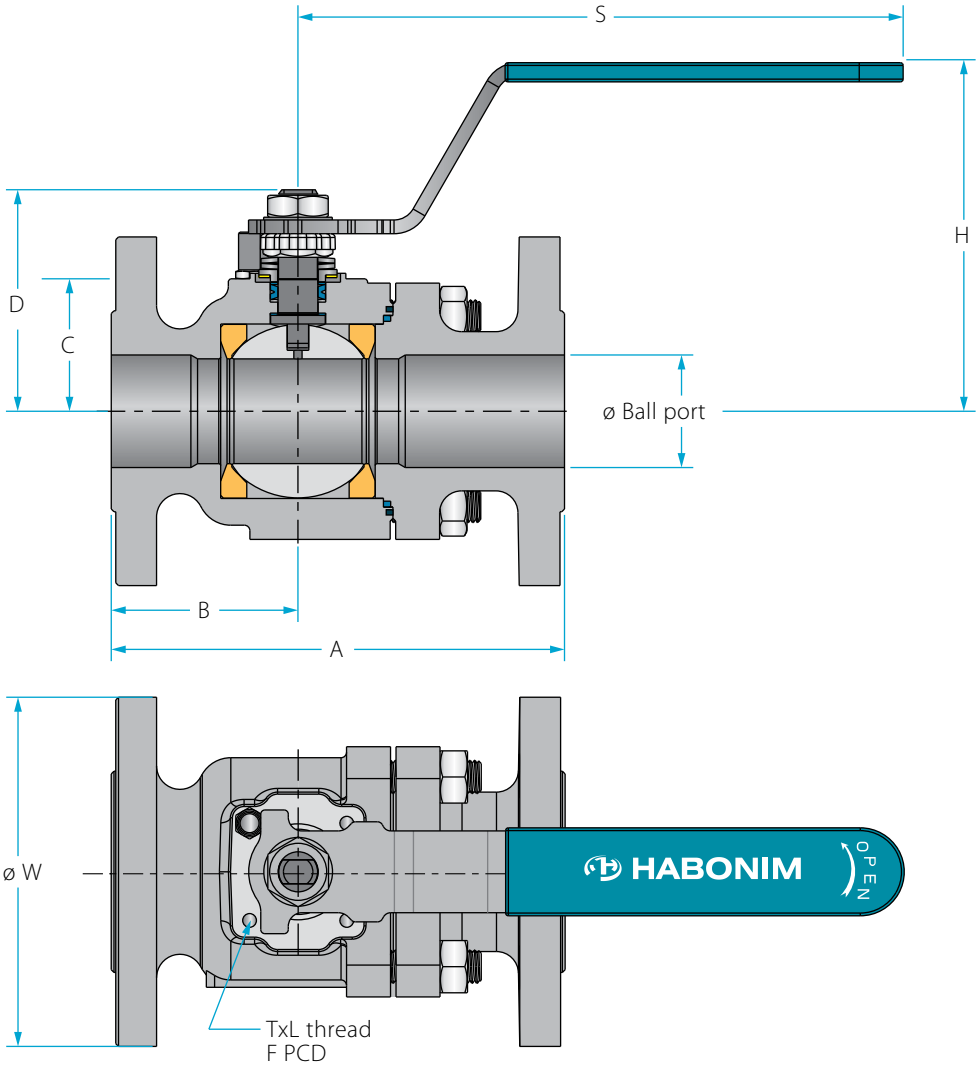
Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	Insert	A351 CF8M, A216 WCB, A351 CN7M, A494	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	TFM, PTFE, Virgin PEEK, PCTFE (KEL-F)	2
6*	Primary body seal	PTFE	1
6B*	Secondary body seal	Graphite	1
7*	Stem thrust seal	VIRGIN PEEK, PCTFE (KEL-F)	1
7a*	Anti-abrasion ring	VIRGIN PEEK, PCTFE (KEL-F)	1
8	Stop pin	A582 303	1

Item	Description	Material specification	Qty.
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A194 8M, EN3506-2 A4-80	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

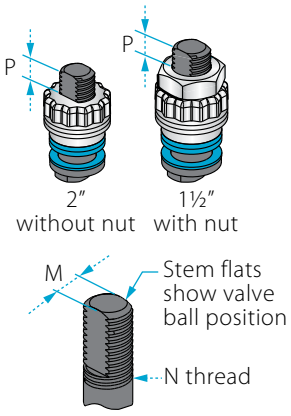
* Repair kit components

Size 1½"-2" | DN40-DN50 | ANSI Class 150/300 | 73G/74G Series

Valve dimensions

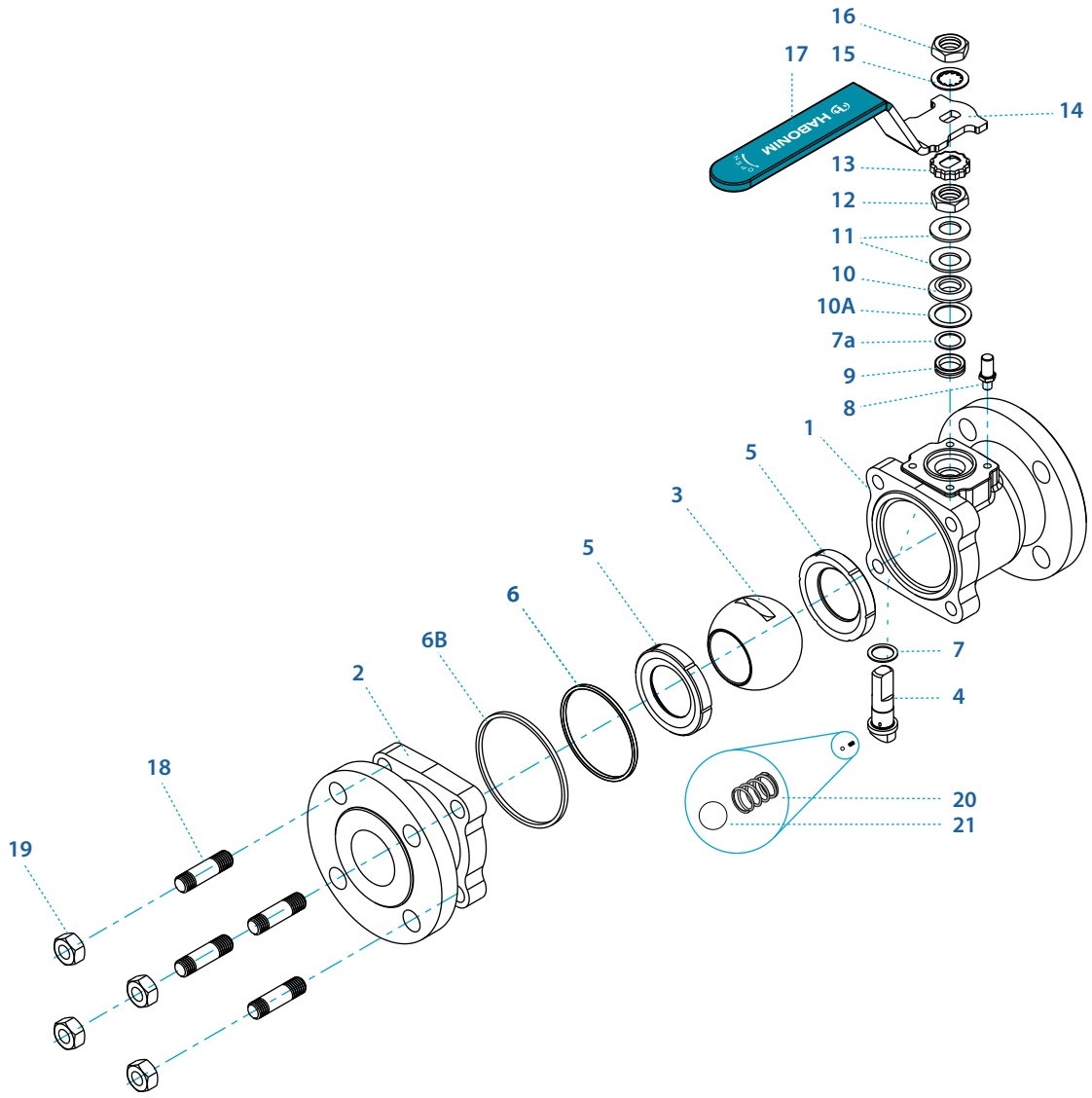


Preparation for actuation



Std. port	Unit	Ball port	A		B		C	D	H	S	ØW		M	N	P	F		TxL	Weight kg/lb		Kv
			150	300	150	300					150	300							150	300	Cv
DN40	mm	38.10	165.00	190.00	97.00	110.00	48.30	77.80	124.00	220.50	127.00	156.00	8.71	9/16" UNF	8.50	(F05)	50.00	M6x12	6.60	9.80	220
1½"	inch	1.50	6.50	7.50	3.82	4.33	1.90	3.06	4.88	6.68	5.00	6.14	0.34		0.33		1.97		14.50	21.50	255
DN50	mm	50.00	178.00	216.00	109.00	141.00	70.00	88.00	134.20	220.50	152.00	165.00	8.71	9/16" UNF	13.50	(F07)	70.00	M8x12	13.00	15.00	430
2"	inch	2.00	7.00	8.50	4.29	5.55	2.75	3.46	5.28	6.68	5.98	6.50	0.34		0.53		2.76		28.60	33.00	499

Components & materials



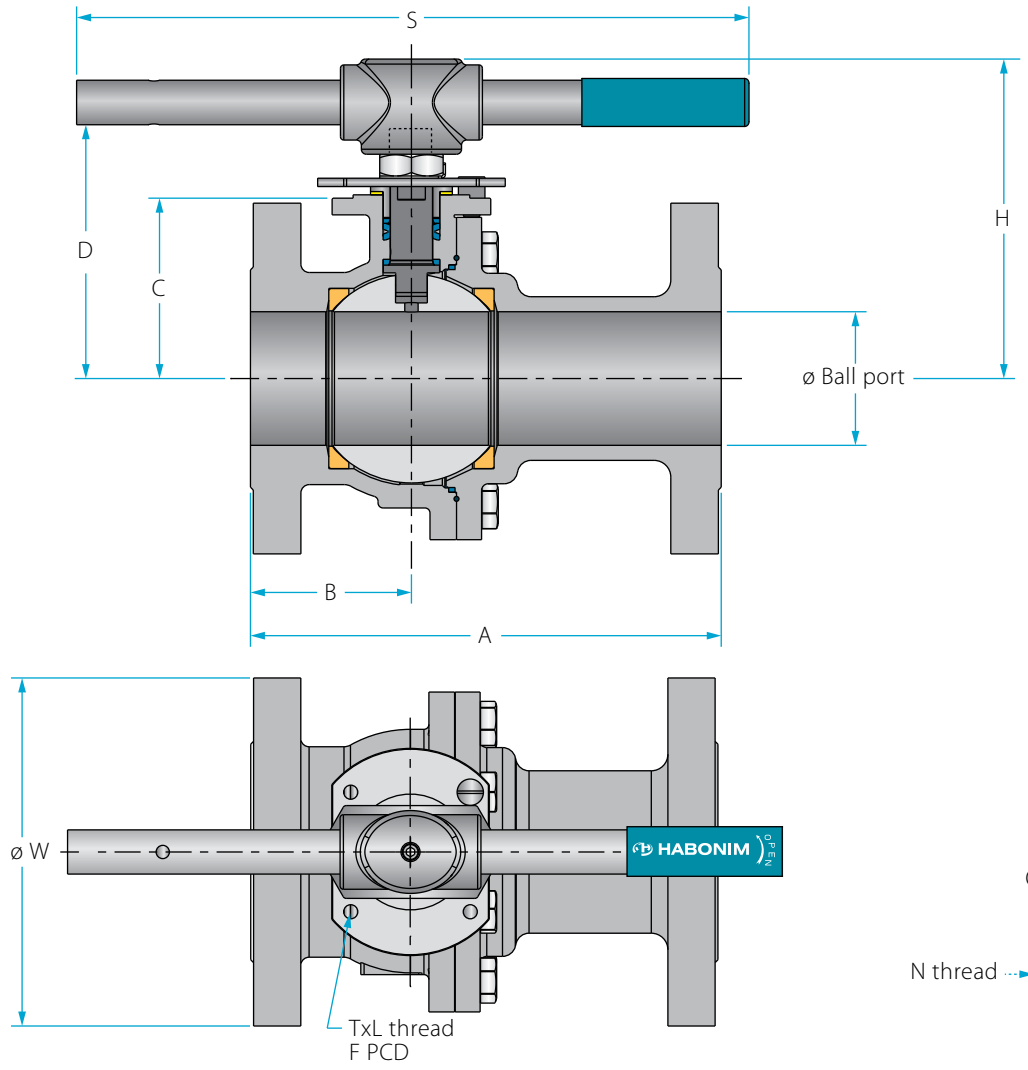
Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	End	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	TFM, PTFE, Virgin PEEK, PCTFE (KEL-F)	2
6*	Primary body seal	PTFE	1
6B*	Secondary body seal	Graphite	1
7*	Stem thrust seal	VIRGIN PEEK, PCTFE (KEL-F)	1
7a*	Anti-abrasion ring	VIRGIN PEEK, PCTFE (KEL-F)	1

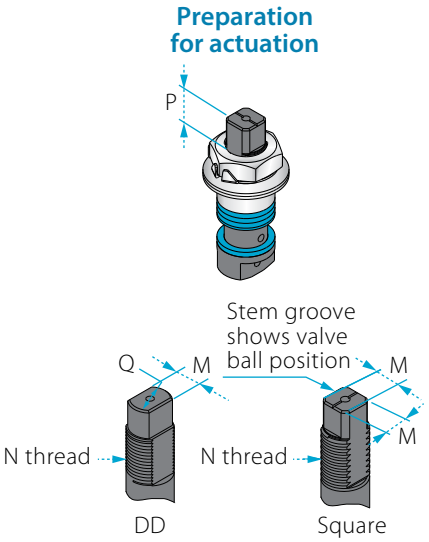
Item	Description	Material specification	Qty.
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A193 B8, B8A	1
17	Sleeve	PVC	1
18	Body bolts	A193 B8, EN3506-1 A2-70	4
19	Body nuts	A194 8M, EN3506-2 A4-80	4
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

* Repair kit components

Size 3"-8" | DN80-DN200 | ANSI Class 150/300 | 73G/74G Series

Valve dimensions

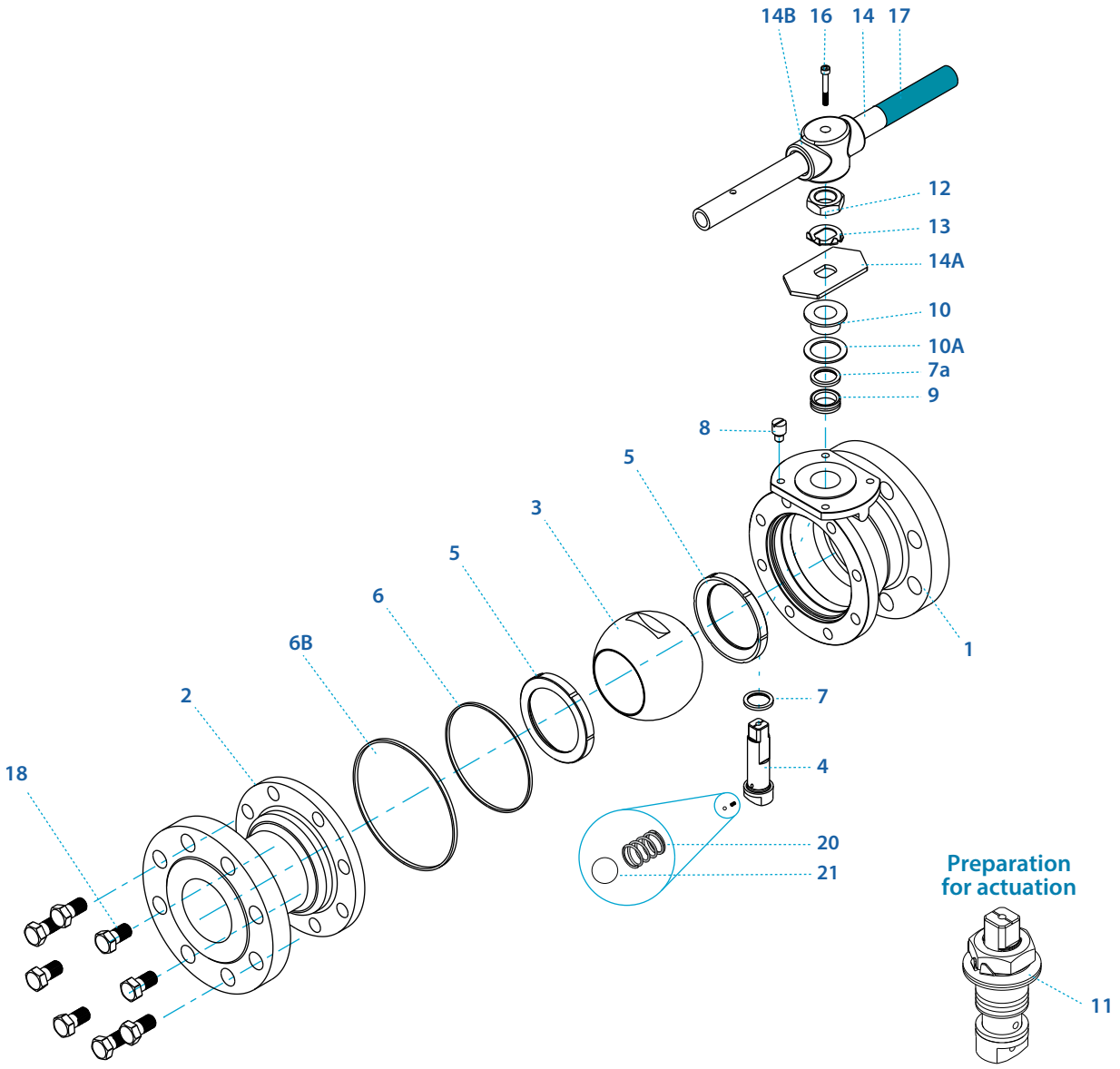




Std. port	Unit	Ball port	A		B		C	D	H	S	ØW		M	M -DD	N	P	Q	F		TxL	Weight kg/lb		Kv
			150	300	150	300					150	300									150	300	Cv
DN80	mm	80.00	203.00	282.50	77.50	96.40	108.00	154.60	194.80	400.00	191.00	210.00	18.90	15.90	1"-14 UNS-2A	16.70	22.70	(F10)	102.00	M10X20	22.00	28.20	1111
3"	inch	3.15	7.99	11.12	3.05	3.80	4.25	6.09	7.67	15.75	7.52	8.27	0.74	0.63		0.66	0.89		4.02		48.50	62.20	1300
DN100	mm	100.00	228.50	304.80	84.50	104.50	124.00	210.80	211.00	610.00	230.00	254.00	18.90	15.90	1"-14 UNS-2A	16.70	23.00	(F10)	102.00	M10X20	39.00	44.50	2051
4"	inch	3.94	9.00	12.00	3.33	4.11	4.88	8.30	8.31	24.02	9.06	10.00	0.74	0.63		0.66	0.89		4.02		86.00	98.10	2400
DN150	mm	150.00	394.00	403.50	163.50	174.50	179.00	248.50	308.00	916.00	279.40	328.00	28.45	23.75	1½"-12 UNF-2A	26.20	23.00	(F12)	125.00	M12X20	82.00	100.00	4615
6"	inch	5.91	15.51	15.89	6.44	6.87	7.05	9.78	12.13	36.06	11.00	12.91	1.12	0.94		1.03	0.91		4.92		180.80	220.50	5400
DN200	mm	200.00	457.20	502.00	242.50	241.00	241.00	353.70	-	-	460.00	460.00	35.92	35.92	2"-8 UN-2A	37.50	32.00	(F14)	140.00	M16X24	190.00	225.00	7949
8"	inch	7.87	18.00	19.76	9.55	9.49	9.49	13.93	-	-	18.11	18.11	1.41	1.41		1.48	1.26		5.51		418.90	496.00	9300

(-) Due to high valve torque, pipe handle cannot be used. A manual gear or automation means should be used to operate the valve.

Components & materials



Item	Description	Material specification	Qty.
1	Body	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
2	End	A351 CF8M, A216 WCB, A351 CN7M, A494 M-35-1, A494 CW-12MW, A494 CX-2MW, A351 CK3MCuN, A995 CD3MN 4A, A995 CE3MN 5A	1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, B574 N06022, A479 S31254, A479 S31600, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	TFM, PTFE, Virgin PEEK, PCTFE (KEL-F)	2
6*	Primary body seal	PTFE	1
6B*	Secondary body seal	Graphite	1
7*	Stem thrust seal	VIRGIN PEEK, PCTFE (KEL-F)	1
7a*	Anti-abrasion ring	VIRGIN PEEK, PCTFE (KEL-F)	1

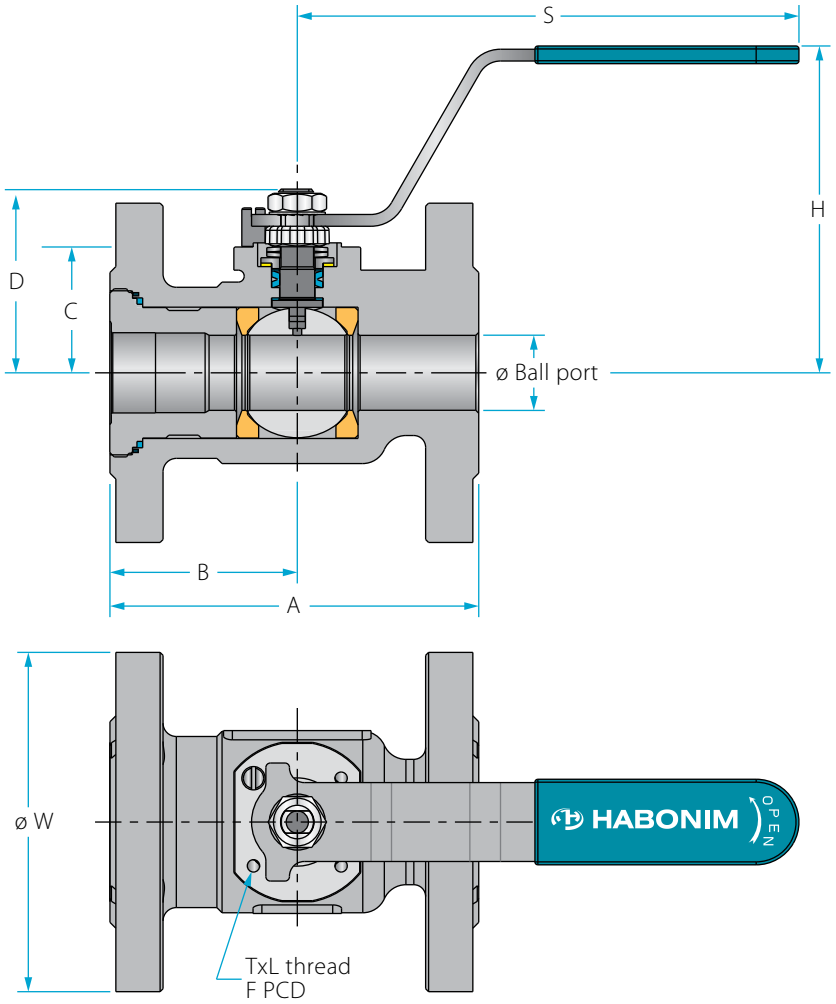
Item	Description	Material specification	Qty.
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	C.st B18 ZP	1
13	Tab lock washer	A240 304	1
14**	Handle	C.St. Zinc plate, A240 316L	1
14A	Stop plate	C.St. 1.0402 Zinc plate, A240 430	1
14B	Wrench head	Ductile Iron A536 Gr. 65-45-12, A216 WCB, A351 CF8M	1
16	Wrench bolt	EN3506-1 A2-70/A4-80, A193 Gr B8/B8M	1
17	Sleeve	PVC	1
18	Body bolts	C.St. 8.8 ZP, S.St. A2-70	8-12
20	Antistatic spring	A313 302	2
21	Antistatic plunger	A479 304	2
23	Tag (not shown)	A167 304	1

* Repair kit components

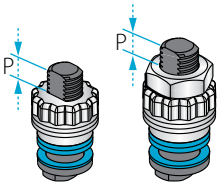
** Gear operator should be used for size 8" DN200 (handle components are not included)

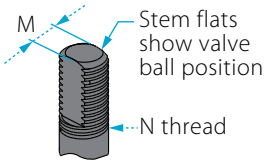
Size ½"-1" | Class DN15-DN25 | DIN PN40 | 78G Series

Valve dimensions



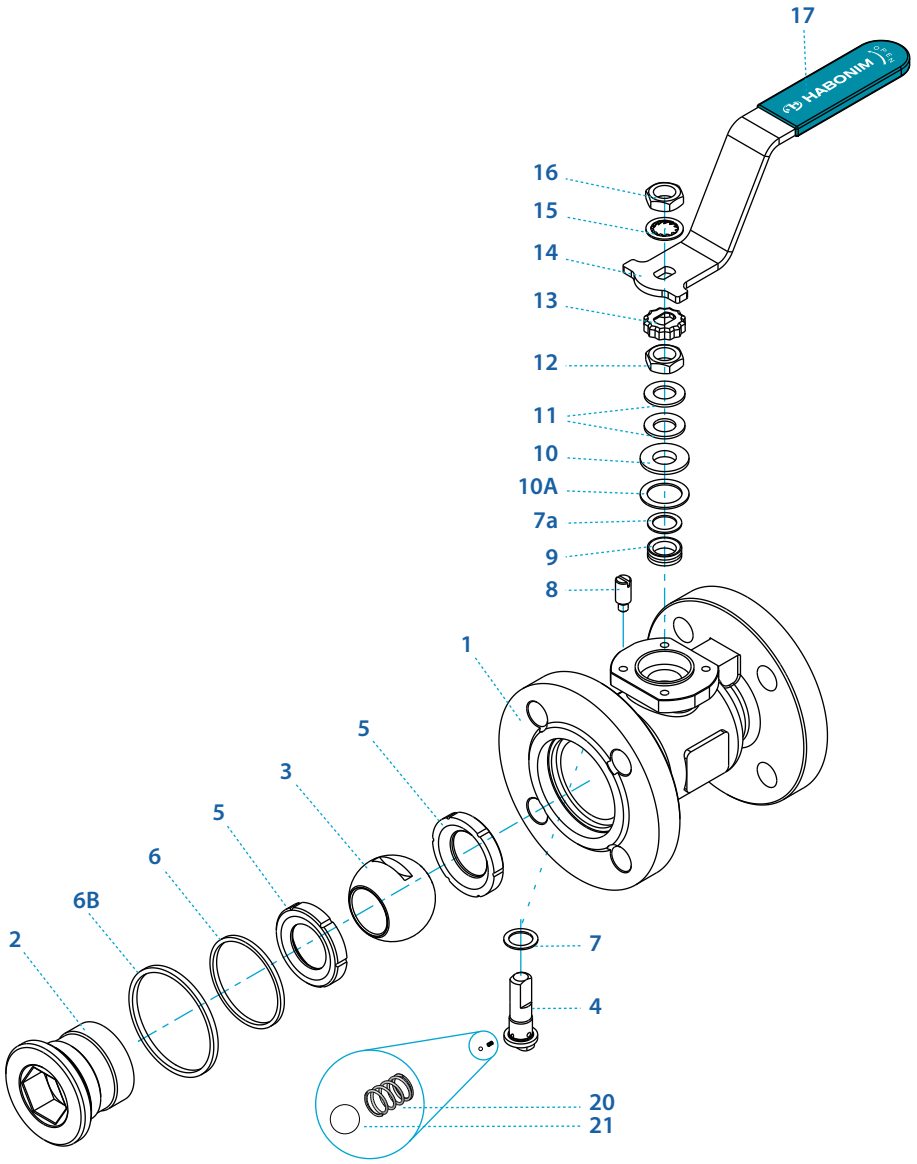
Preparation for actuation





Std. port	Unit	Ball port	A		B	C	D	H	M	N	P	S	ØW	F		TxL	Weight kg/lb		Kv
			F1	F4													F1	F4	Cv
DN15	mm	14.30	130.00	115.00	48.00	31.50	40.50	98.60	5.54	⅜" UNF	6.65	160.00	95.00	(F03)	36.00	M5x10	2.20	2.10	28
½"	inch	0.56	5.12	4.53	1.89	1.24	1.59	3.88	0.22		0.26	6.30	3.74		1.42		4.80	4.60	32
DN20	mm	20.60	150.00	120.00	58.00	38.30	56.50	105.00	7.54	7/16" UNF	7.40	170.00	105.00	(F04)	42.00	M5x10	3.20	3.00	46
¾"	inch	0.81	5.91	4.72	2.28	1.51	2.22	4.13	0.30		0.29	6.69	4.13		1.65		7.00	6.60	53
DN25	mm	25.40	160.00	125.00	63.50	41.80	61.00	108.00	7.54	7/16" UNF	7.40	170.00	115.00	(F04)	42.00	M5x10	4.20	4.00	80
1"	inch	1.00	6.30	4.92	2.50	1.65	2.40	4.25	0.30		0.29	6.69	4.53		1.65		9.20	8.80	93

Components & materials



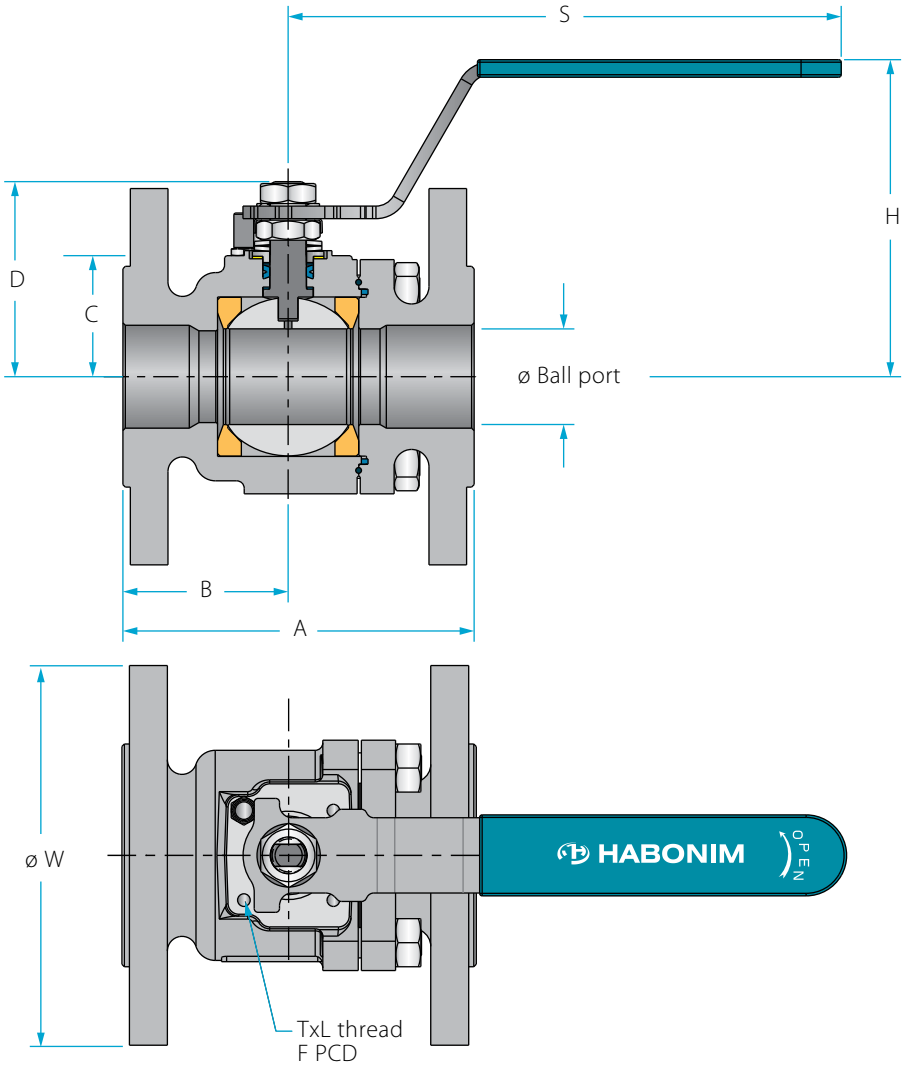
Item	Description	Material specification	Qty.
1	Body	X 2 CrNiMo 17 13 2 (1.4404), GS-C25 (DIN1.0619), NiCr20CuMo (2.4660), NiCu30Fe (2.4360), NiCr16Mo15W(2.4819), NiCr21Mo14W(2.4602), X1CrNiMoCuN20-18-7 (1.4547), X2CrNiMoN 22-5-3 (1.4462), X2CrNiMoN25-7-4 (1.4410), A216 WCB, A351 CF8M	1
2	Plug		1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr.630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	TFM, PTFE, Virgin PEEK, PCTFE (KEL-F)	2
6*	Primary body seal	PTFE	1
6B*	Secondary body seal	Graphite	1
7*	Stem thrust seal	VIRGIN PEEK, PCTFE (KEL-F)	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE (KEL-F), TFM, CF PTFE	1
8	Stop pin	NiCr19NbMo (2.4668)	1
9*	Stem seal	CF PTFE, TFM	1

Item	Description	Material specification	Qty.
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A194 8M, EN3506-2 A4-80	1
17	Sleeve	PVC	1
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

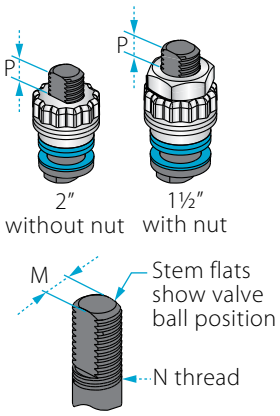
* Repair kit components

Size 1½"-2" | DN40-DN50 | DIN PN40 | 78G Series

Valve dimensions

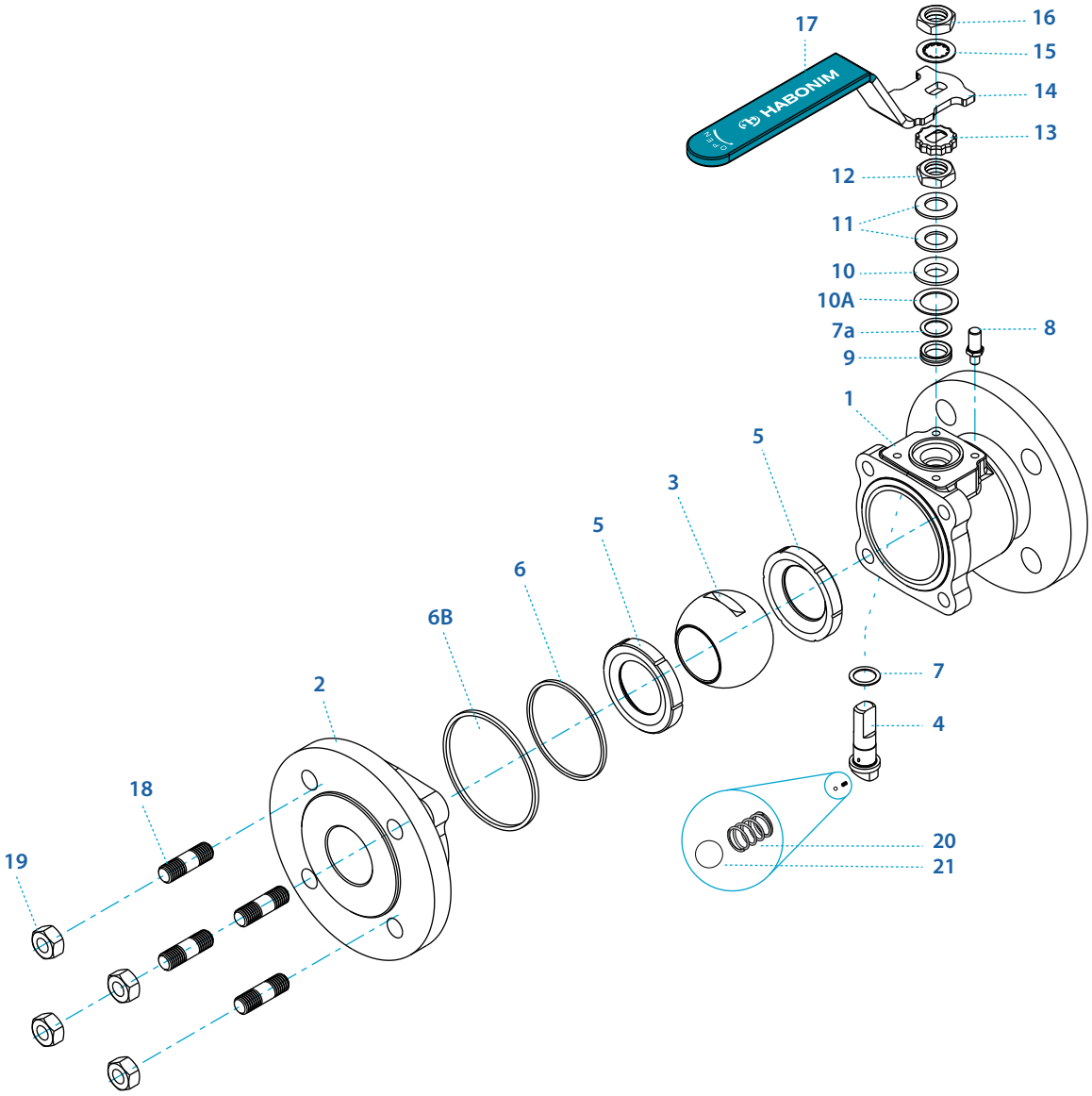


Preparation for actuation



Std. port	Unit	Ball port	A		C	B	D	H	S	ØW	M	N	P	F		TxL	Weight kg/lb		Kv
			F1	F4													F1	F4	Cv
DN40	mm	38.10	200.00	140.00	48.30	65.90	77.80	124.00	122.00	150.00	8.71	9/16" UNF	8.50	(F05)	50.00	M6x12	10.90	10.30	220
1½"	inch	1.50	7.87	5.51	1.90	2.59	3.06	4.88	4.81	5.91	0.34		0.33		1.97		24.00	22.70	255
DN50	mm	50.00	230.00	150.00	78.00	60.70	119.00	137.30	240.00	165.00	8.71	9/16" UNF	13.50	(F07)	70.00	M8x12	15.00	13.00	430
2"	inch	2.00	9.06	5.91	3.07	2.39	4.69	5.41	9.45	6.50	0.34		0.53		2.76		33.00	28.60	499

Components & materials



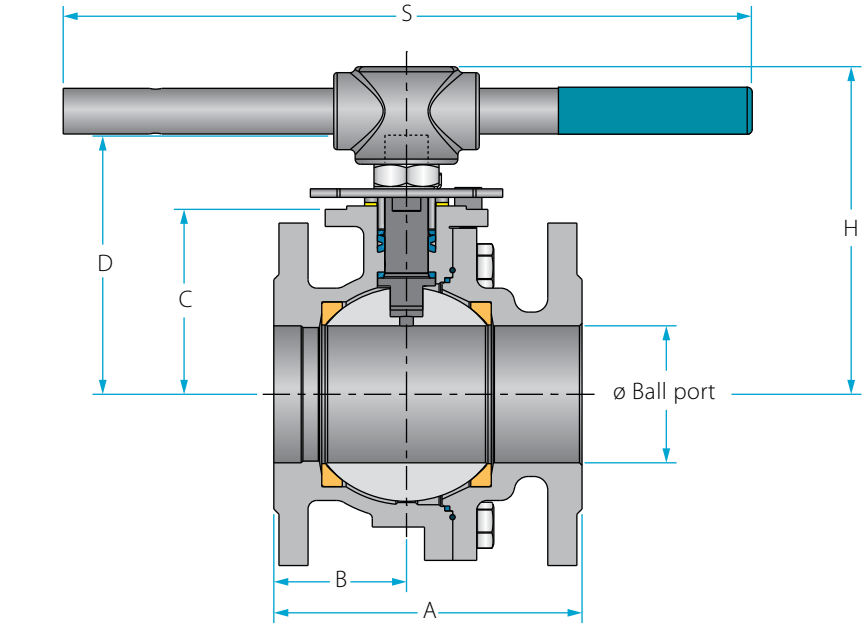
Item	Description	Material specification	Qty.
1	Body	X 2 CrNiMo 17 13 2 (1.4404), GS-C25 (DIN1.0619), NiCr20CuMo (2.4660), NiCu30Fe (2.4360), NiCr16Mo15W(2.4819), NiCr21Mo14W(2.4602), X1CrNiMoCuN20-18-7 (1.4547), X2CrNiMoN 22-5-3 (1.4462), X2CrNiMoN25-7-4 (1.4410), A216 WCB, A351 CF8M	1
2	End		1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	TFM, PTFE, Virgin PEEK, PCTFE (KEL-F)	2
6*	Primary body seal	PTFE	1
6B*	Secondary body seal	Graphite	1
7*	Stem thrust seal	VIRGIN PEEK, PCTFE (KEL-F)	1
7a*	Anti-abrasion ring	VIRGIN PEEK, PCTFE (KEL-F)	1
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1

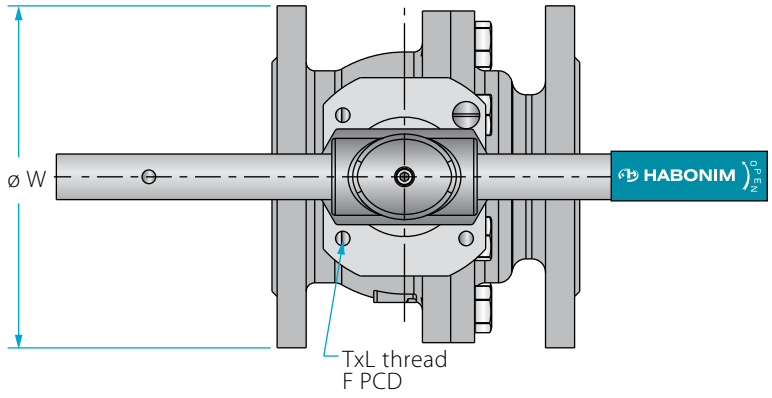
Item	Description	Material specification	Qty.
10	Follower	B783 316L, B164 N04400	1
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Locking clip	A167 304	1
14	Handle	C.St. A29 G10200 Zinc plate, A240 430	1
15	Serrated washer	A240 410	1
16	Handle nut	A193 B8, B8A	1
17	Sleeve	PVC	1
18	Body bolts	A193 B8, EN3506-1 A2-70	4
19	Body nuts	A194 8M, EN3506-2 A4-80	4
20	Antistatic spring	A313 302	1
21	Antistatic plunger	A479 304	1
23	Tag (not shown)	A167 304	1

* Repair kit components

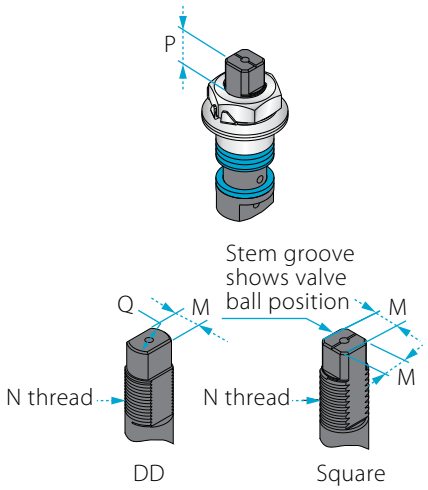
Size 3"- 8" | DN80-DN200 | DIN PN16 | 77G Series

Valve dimensions





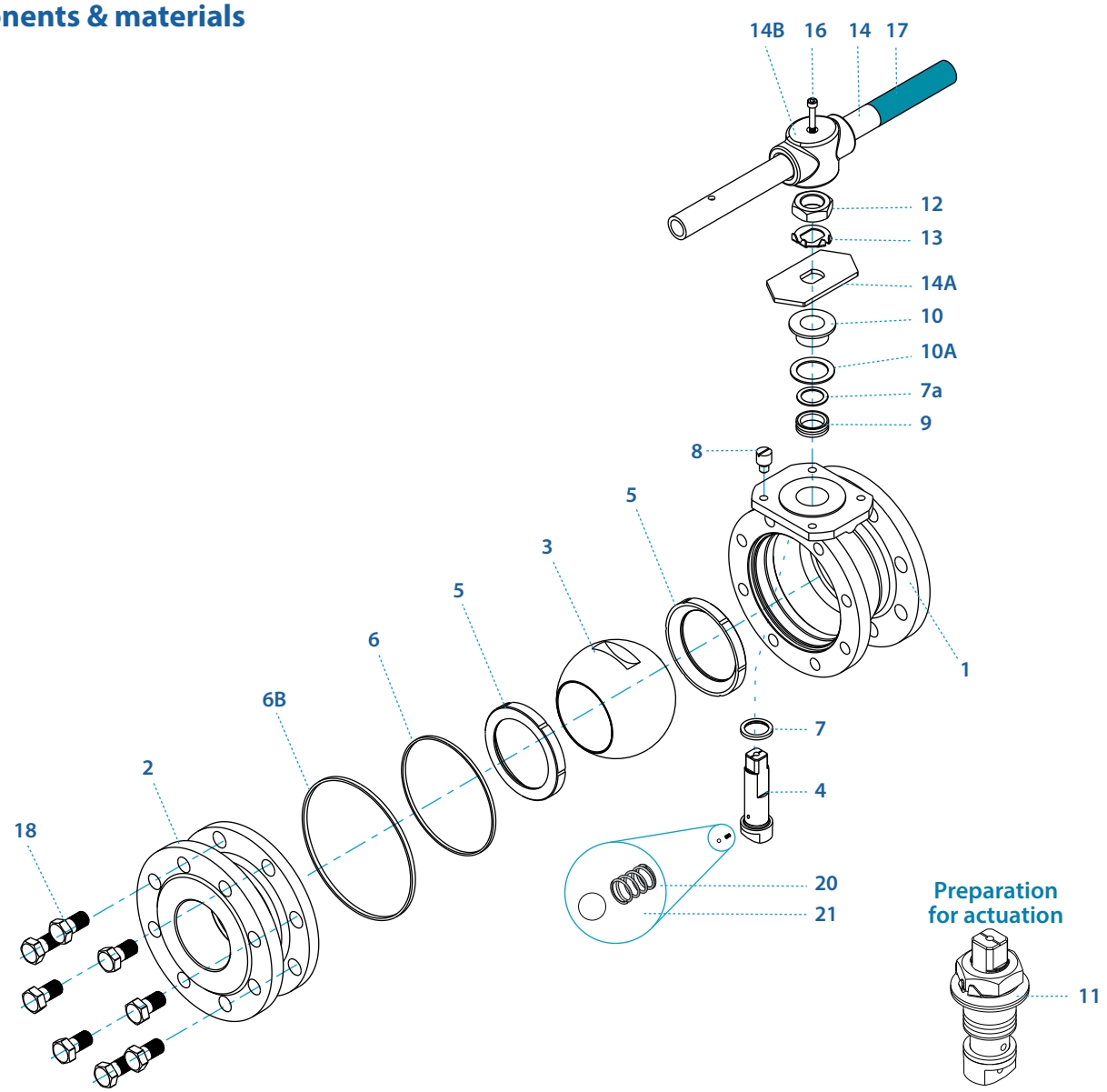
Preparation for actuation



Std. port	Unit	Ball port	A		C	B	D	H	S	ØW	M	M DD	N	P	F		TxL	Weight kg/lb		Kv
			F5	F4														F5 PN16	F4 PN16	Cv
DN80	mm	80.00	-	180.00	108.00	77.50	162.00	194.80	300.00	200.00	18.90	15.90	1"-14	16.70	(F10)	102.00	M10x20	-	24.00	1000
3"	inch	3.20	-	7.09	4.25	3.05	6.40	7.67	11.81	7.87	0.74	0.63	UNS-2A	0.66		4.02		-	52.80	1160
DN100	mm	100.00	-	190.00	132.00	84.50	186.00	211.00	325.00	225.00	18.90	15.90	1"-14	16.70	(F10)	102.00	M10x20	-	30.00	1830
4"	inch	3.94	-	7.48	5.20	3.33	7.32	8.31	12.80	8.86	0.74	0.63	UNS-2A	0.66		4.02		-	66.00	2123
DN150	mm	150.00	350.00	-	178.00	163.50	236.00	308.00	362.00	328.00	28.45	23.75	1½"-12 UNF-2A	26.20	(F12)	125.00	M12x20	63.00	-	4380
6"	inch	5.91	13.78	-	7.01	6.44	9.29	12.13	14.25	12.91	1.12	0.94		1.03		4.92		139.00		5081
DN200	mm	200.00	400.00	-	226.00	243.00	286.00	-	-	395.00	35.92	35.92	2"-8 UN-2A	37.50	(F14)	140.00	M16x30	97.00	-	8070
8"	inch	7.87	15.75	-	8.91	9.55	11.26	-	-	15.55	1.41	1.41		1.48		5.51		213.00		9361

(-) Due to high valve torque, pipe handle cannot be used. A manual gear or automation means should be used to operate the valve.

Components & materials



Item	Description	Material specification	Qty.
1	Body	X 2 CrNiMo 17 13 2 (1.4404), GS-C25 (DIN1.0619), NiCr20CuMo (2.4660), NiCu30Fe (2.4360), NiCr16Mo15W(2.4819), NiCr21Mo14W(2.4602), X1CrNiMoCuN20-18-7 (1.4547), X2CrNiMoN 22-5-3 (1.4462), X2CrNiMoN25-7-4 (1.4410), A216 WCB, A351 CF8M	1
2	End		1
3	Ball	A351 CF8M, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
4	Stem	A479 316L, A564 Gr 630 H1150D 17-4PH, B473 N08020, B164 N04400, B574 N06022, B574 N10276, A479 S31254, A479 S31803, A479 S32750	1
5*	Seat	TFM, PTFE, Virgin PEEK, PCTFE (KEL-F)	2
6*	Primary body seal	PTFE	1
6B*	Secondary body seal	Graphite	1
7*	Stem thrust seal	VIRGIN PEEK, PCTFE (KEL-F)	1
7a*	Anti-abrasion ring	VIRGIN PEEK, PCTFE (KEL-F)	1
8	Stop pin	A582 303	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	B783 316L, B164 N04400	1

Item	Description	Material specification	Qty.
10A*	Slide bearing	TF316	1
11	Disc spring	A693 631 17-7PH	2
12	Stem nut	A194 8M, EN3506-2 A4-80	1
13	Tab lock washer	A240 304	1
14**	Handle	C.St. Zinc plate, A240 316L	1
14A	Stop plate	C.St. 1.0402 Zinc plate, A240 430	1
14B	Wrench Head	Ductile Iron A536 Gr. 65-45-12, A216 WCB, A351 CF8M	1
16	Wrench bolt	EN3506-1 A2-70/A4-80, A193 Gr B8/B8M	1
17	Sleeve	PVC	1
18	Body bolts	C.St. 8.8 ZP, S.St. A2-70	8-12
20	Antistatic spring	A313 302	2
21	Antistatic plunger	A479 304	2
23	Tag (not shown)	A167 304	1

* Standard items supplied in repair kits

** Gear operator should be used for size 8" DN200 (handle components are not included)

Ordering code system

The HABONIM flanged ball valve identification code

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	.	.	30
1	0			F	3	1	G	-	4	4	6	6	A	T	/	1	5	0						
Size		Features			Series		Design		Body / End / Plug		Ball / Stem		Seat	Seal		Flange				Special features				

Size		
Code	inch	mm
05	½"	15
07	¾"	20
10	1"	25
15	1½"	40
20	2"	50
30	3"	80
40	4"	100
60	6"	150
80	8"	200

Features	
A	Anti-Static
F	Fire safe
O[2]	Clean assembly for O_2 service
M	Ammonia service
K	Chlorine service
V	Vacuum service

Series	
31	ANSI #150 std. port
32	ANSI #300 std. port
73	ANSI #150 full port
74	ANSI #300 full port
77	DIN PN16 full port
78	DIN PN40 full port

Design	
P	[1] Basic design
X	HermetiX™ stem seal
W	HermetiX™ non-graphite Fire-safe stem seal
G[2]	HermetiX™ non-graphite Fire-safe stem seal FDA compliant

Body / End / Plug	
1	Bronze B62 C83600
4	C. Steel A216 WCB
R	C. Steel A352 LC1
9	C. Steel A352 LCB
6	S. Steel A351 CF8M
8	S. Steel A351 CF8
7	Monel A494 M-35-1
I	Inconel 625 A494 CW-6MC
A	Alloy-20 A351 CN7M
C	Alloy-C276 A494 CW-12MW
W	Alloy-C22 A494 CX-2MW
D	Duplex A995 CD3MN 4A
K	Super duplex A995 CE3MN 5A
S	254SMO A351 CK3MCuN

Ball / Stem	
6	S. Steel A479 316\316L
8	S. Steel A479 304\304L
M	17-4PH A564 Gr 630 H1150D
Z	Inconel 718 B637 N07718
7	Monel B164 N04400
A	Alloy-20 B473 N08020
C	Alloy-C276 B574 N10276
W	Alloy-C22 B574 N06022
D	Duplex A479 S31803
K	Super duplex A479 S32750
S	254SMO A479 S31254

Seat	
A	TFM
C	PCTFE
K	CF PEEK
L	Virgin PEEK
P	CF PTFE
R	15% Glass filled RPTFE
S	VESPEL
T	PTFE
U	UHMWPE
Y	Delrin
W	PVDF

Seal	
G	Expanded Graphite
I	Impregnated Graphite
R	15% Glass filled RPTFE
T	PTFE
U	UHMWPE
V	Viton
B	NBR

Flange	
150	ANSI #150 RF
300	ANSI #300 RF
PN16	EN1092 PN16 RF
PN40	EN1092 PN40 RF

Special features	
W	Threaded plug
R	DD stem
FF	Flat face
B	Body made from rolled bar
EP	Electropolished
J2N05	Jacketed valve - number of ports (2), type (NPT) and size (½")
SRS	Self relief seat
P250	Ball with upstream pressure relief hole
PN	Ball with LTPN surface treatment
N..	Raised face special surface finish (N4-N8)
G..	Internal surface finish (G24, G32)

Valve special stem seals for 'P' design	
HC	High cycle service
ORV	Viton O-ring based
ORB	NBR O-ring based
ORE	EPDM O-ring based
AAX	FDA compliant stem seal. TFM thrust bearing and X shape gasket
PPX	CF PTFE thrust and X shape gasket

[1] P design is Habonim standard valve without the HermetiX™ stem seal construction.

[2] G series is cleaned for pharma/API service as standard, no need for 'O' prefix.

In some applications the available options above are limited to specific sizes please consult with Habonim for details.

HABONIM
Industrial Valves & Actuators

www.habonim.com

Habonim ISRAEL
Tel: +972-4-6914911
Fax: +972-4-6914935
sales_international@habonim.com

Habonim EUROPE
Tel: +34 640 384 759
sales_eu@habonim.com

Habonim UK
Tel: +44-1633-484554
Fax: +44-1633-482252
sales_uk@habonim.com

Habonim USA
Toll Free Phone: 1-866-261-8400
Toll Free Fax: 1-866-243-9959
sales_usa@habonim.com

Habonim CHINA
Tel: + 86 21 64453190 *146
sales_china@habonim.com

Habonim AUSTRALIA
Tel: +61 3 9556 5428
sales_au@habonimau.com

www.habonim.com

Flanged valves Cat.

MAXMARK Flanged valves 04/17 REV2.04