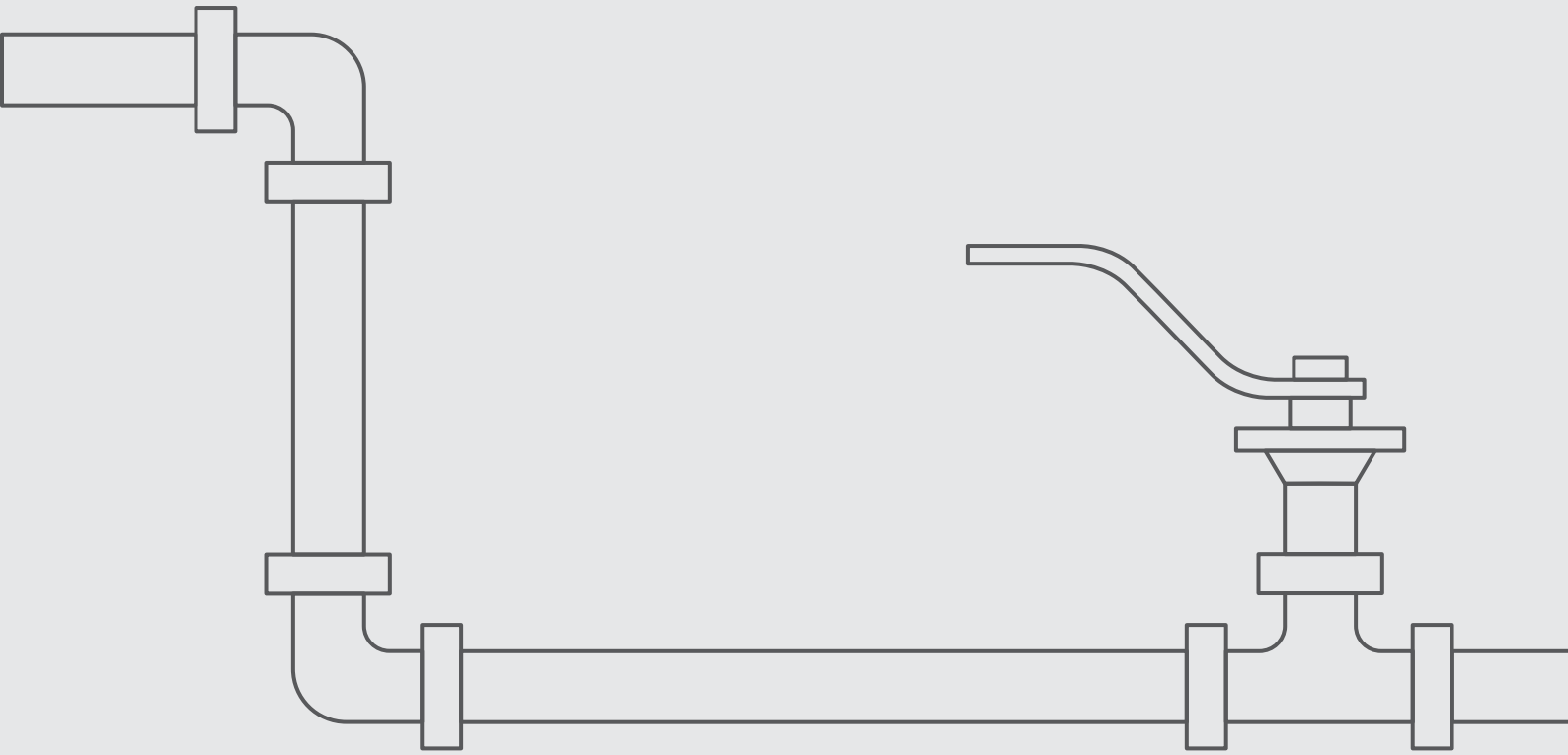
Z47

High Temp. Valves

FLOATING BALL

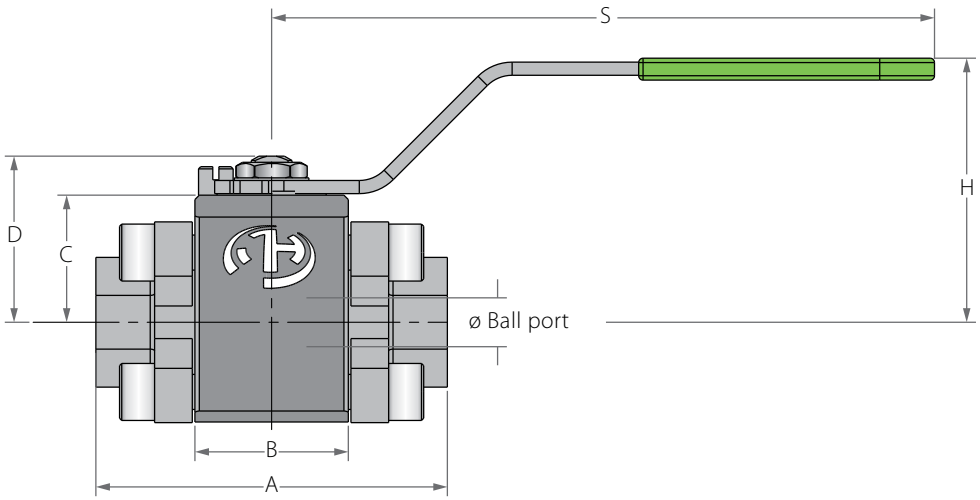
3 PIECE

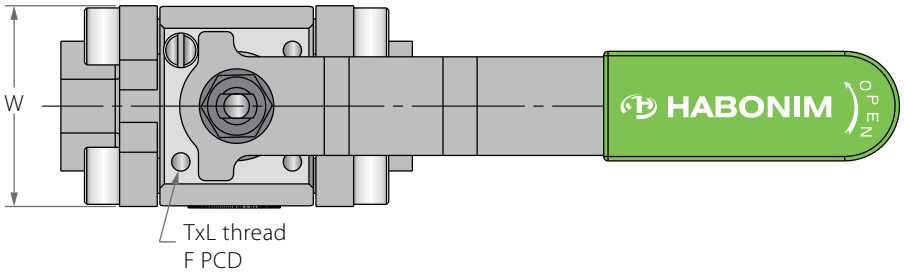


Z47W Z47Z ½"-1¼" | DN15-DN32 | CLASS 600

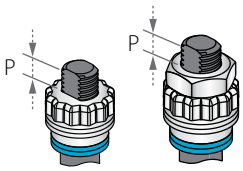
Floating Ball 3 Piece Up to W 260°C (500°F) | Z 450°C (842°F)

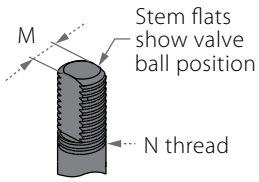
Valve Dimensions





Preparation for actuation





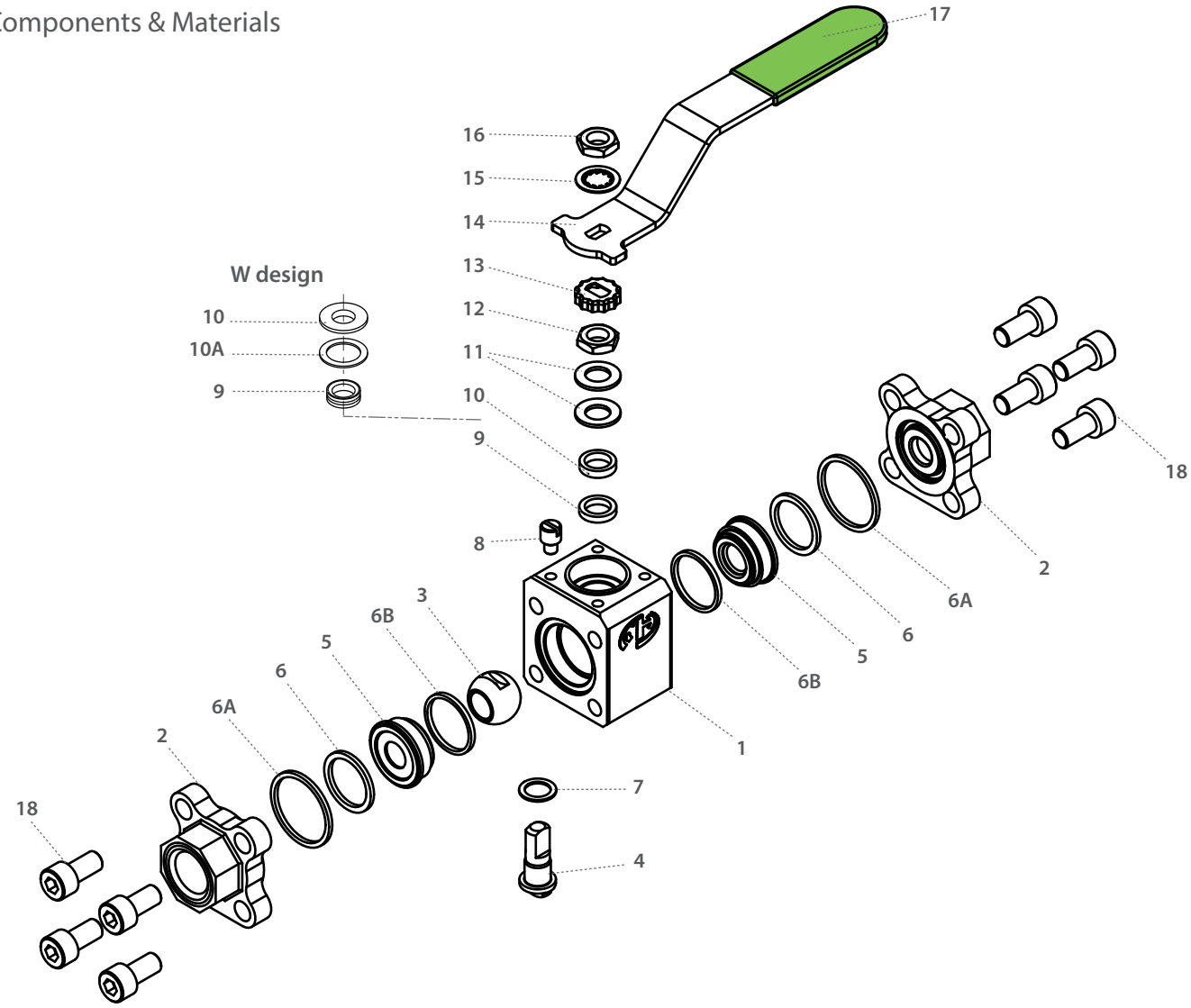
Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weld/Flanged/Tri-clamp end see Face To Face sizes page.

Std. port	Full port	Unit	Ball port	A	B	C	D	H	S	W	M	N	P	F		TxL	Weight kg/lb	Kv Cv
DN15	DN8, DN10	mm	11.15	80.2	35	29	37.9	63	150.0	45.5	5.5	⅜" UNF	6.65	F03	36	M5x6	1.0	7
½"	¼", ⅜"	inch	0.44	3.16	1.38	1.14	1.49	2.48	5.91	1.79	0.22		0.26		1.42		2.26	8
DN20	DN15	mm	13	86	40.0	33.5	51.0	76.5	187	52	7.5	7/16" UNF	6.65	F04	36	M5x8	1.5	10
¾"	½"	inch	0.51	3.39	1.57	1.32	2.01	3.01	7.36	2.05	0.30		0.26		1.42		3.27	12
DN25	DN20	mm	20.6	111	49	36.5	66.0	90.0	237	60.5	8.7	9/16" UNF	6.65	F05	50	M5x8	2.5	28
1"	¾"	inch	0.81	4.37	1.93	1.44	2.60	3.54	9.33	2.38	0.34		0.26		1.97		5.52	32
DN32	DN25	mm	25.4	116	49	38	67.5	92.5	237	69.0	8.7	9/16" UNF	6.65	F05	50	M5x9	3.0	49
1¼"	1"	inch	1.0	4.57	1.93	1.50	2.66	3.64	9.33	2.72	0.34		0.26		1.97		6.69	57

Z47W Z47Z ½"-1¼" | DN15-DN32 | CLASS 600

Floating Ball 3 Piece Up to W 260°C (500°F) | Z 450°C (842°F)

Components & Materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	Ends	Acc. Ordering Code	2
3**	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5**	Seats	Acc. Ordering Code	2
6*	Inner Body Seal	Graphite	2
6A*	Outer Body Seal	Graphite	2
6B*	Outer Body Seal	Graphite	2
7*	Stem Thrust Seal	Graphite + Inconel, PEEK	1
7A*	Anti Abrasion Ring	PEEK	1
8	Stop Pin	S. Steel	2
9*	Stem Seal	Graphite ,CF PTFE	1
10	Follower	S. Steel	1

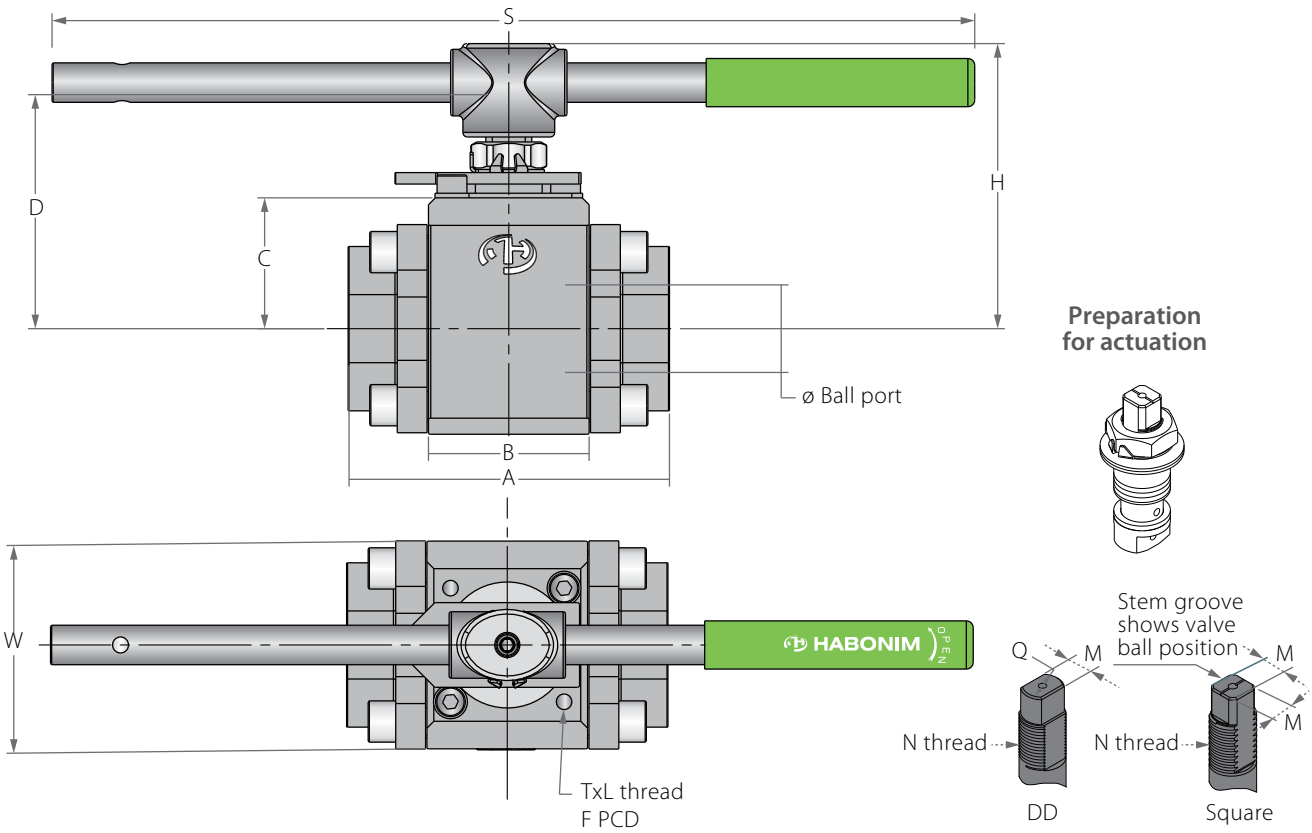
Item	Description	Material specification	Qty.
10A*	Slide Bearing	S. Steel	1
11	Disc Spring	S. Steel	2
12	Stem Nut	S. Steel	1
13	Locking Clip	S. Steel	1
14	Handle	S. Steel	1
15	Serrated Washer	S. Steel	1
16	Handle Nut	S. Steel	1
17	Sleeve	PVC	1
18	Body Bolts	S. Steel	12-16
22	Arrow Flow	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Seals kit components
** Ball and seats kit components

Z47W Z47Z 1½"-2½" | DN40-DN65 | CLASS 600

Floating Ball 3 Piece Up to W 260°C (500°F) | Z 450°C (842°F)

Valve Dimensions



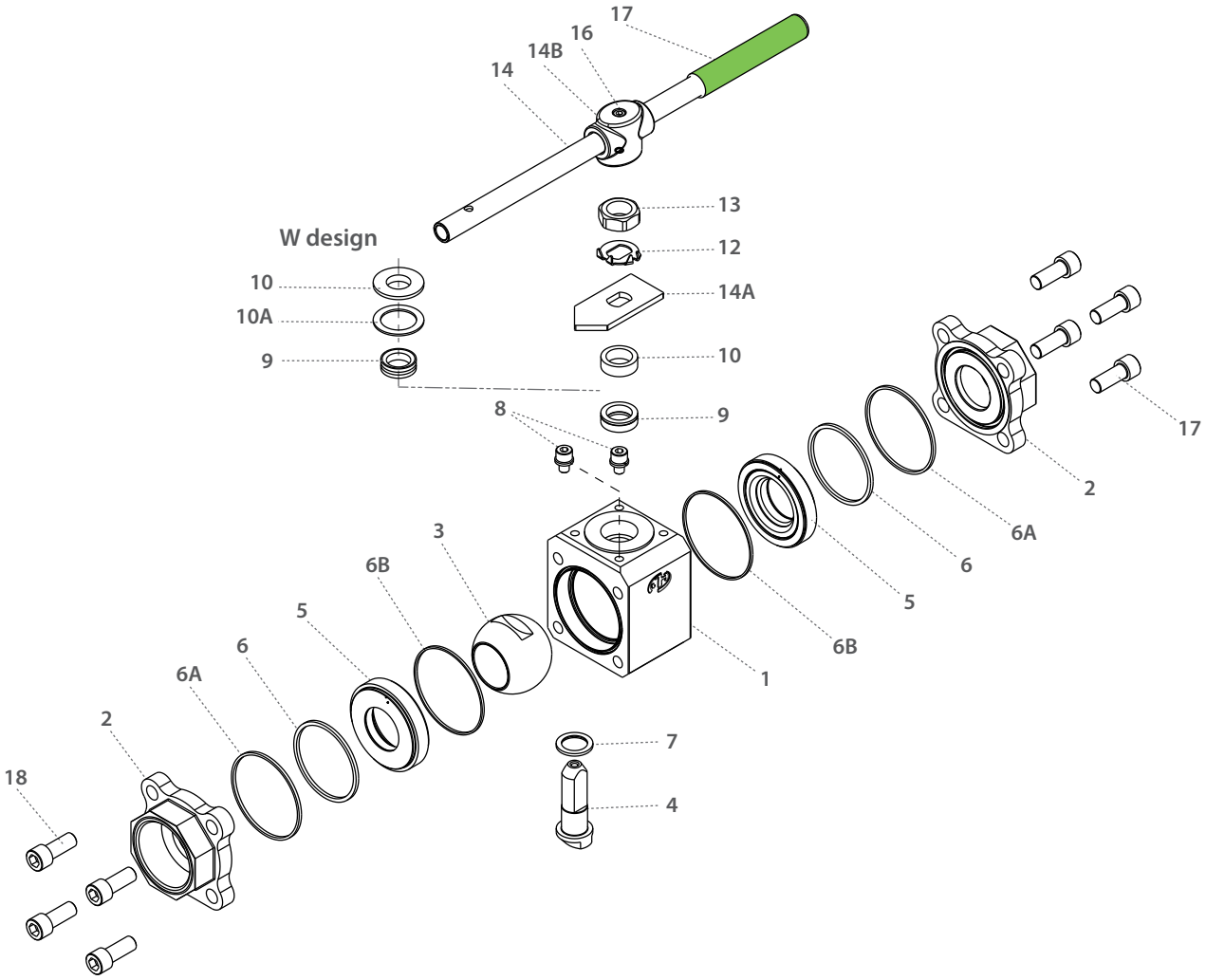
Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weld/Flanged/Tri-clamp end see Face To Face sizes page.

Std. port	Full port	Unit	Ball port	A	B	C	D	H	S	W	M	N	P	F		TxL	Weight kg/lb	Kv Cv
DN40	DN32	mm	31.8	137.0	70.0	53.0	94.6	120.0	400	79.0	13.9	M20x2.5	6.65	F07	70	M8X12	5.5	69
1½"	1¼"	inch	1.25	5.39	2.76	2.09	3.72	4.72	15.75	3.11	0.55		0.26		2.76		12.19	80
DN50	DN40	mm	38.1	140.0	70.0	57.0	98.6	124.0	400	90.5	13.9	M20x2.5	14.6	F07	70	M8X12	6.7	102
2"	1½"	inch	1.50	5.51	2.76	2.24	3.88	4.88	15.75	3.56	0.55		0.57		2.76		14.83	118
DN65	DN50	mm	50.8	179.4	94.0	71.7	118.2	158.5	610.0	108.0	18.9	1"-14 UNS-2A	16.7	F10	102	M10X16	13.5	208
2½"	2"	inch	2.0	7.06	3.70	2.82	4.65	6.24	24.02	4.25	0.74		0.66		4.02		29.65	241

Z47W Z47Z 1½"-2½" | DN40-DN65 | CLASS 600

Floating Ball 3 Piece Up to W 260°C (500°F) | Z 450°C (842°F)

Components & Materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	Ends	Acc. Ordering Code	2
3**	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
6*	Inner Body Seal	Graphite	2
6A*	Outer Body Seal	Graphite	2
6B*	Seat Seal	Graphite	2
7*	Stem Thrust Seal	Graphite + Inconel, PEEK	1
7A*	Anti Abrasion Ring	PEEK	1
8	Stop Pin	S. Steel	2
9*	Stem Seal	Graphite, CF PTFE	1
10	Follower	S. Steel	1
10A*	Slide Bearing	S. Steel	1
12	Stem Nut	S. Steel	1
13	Tab Lock Washer	S. Steel	1

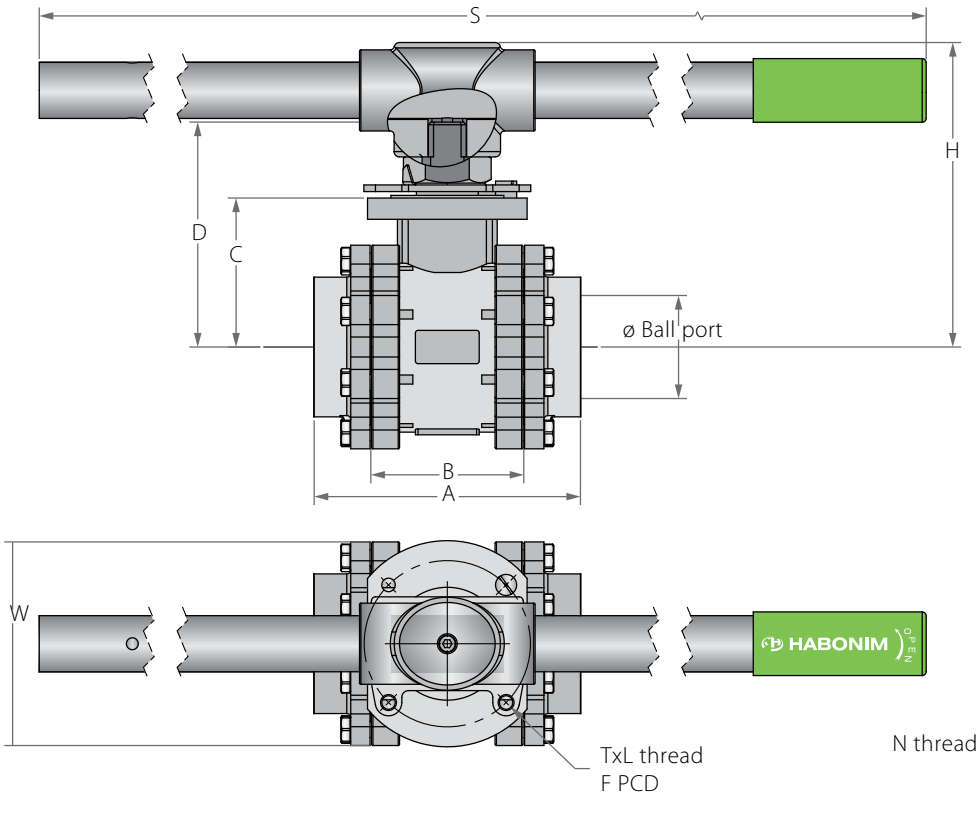
Item	Description	Material specification	Qty.
14	Handle	S. Steel	1
14A	Stop Plate	S. Steel	1
14B	Wrench Head	S. Steel	1
16	Wrench Bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body Bolts	S. Steel	8
23	Tag (not shown)	S. Steel	1
17	Sleeve	PVC	1
18	Body Bolts	S. Steel	20-32
22	Arrow Flow	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Seals kit components
** Ball and seats kit components

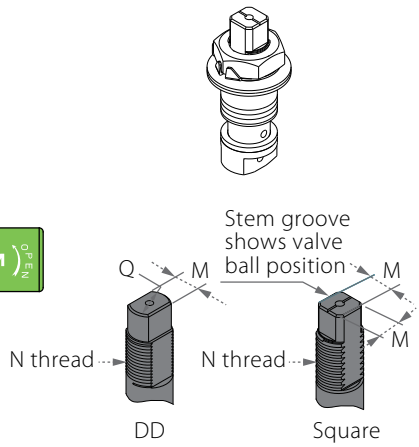
Z47W Z47Z 3"-6" | DN80-DN150 | CLASS 600

Floating Ball 3 Piece Up to W 260°C (500°F) | Z 450°C (842°F)

Valve Dimensions



Preparation for actuation



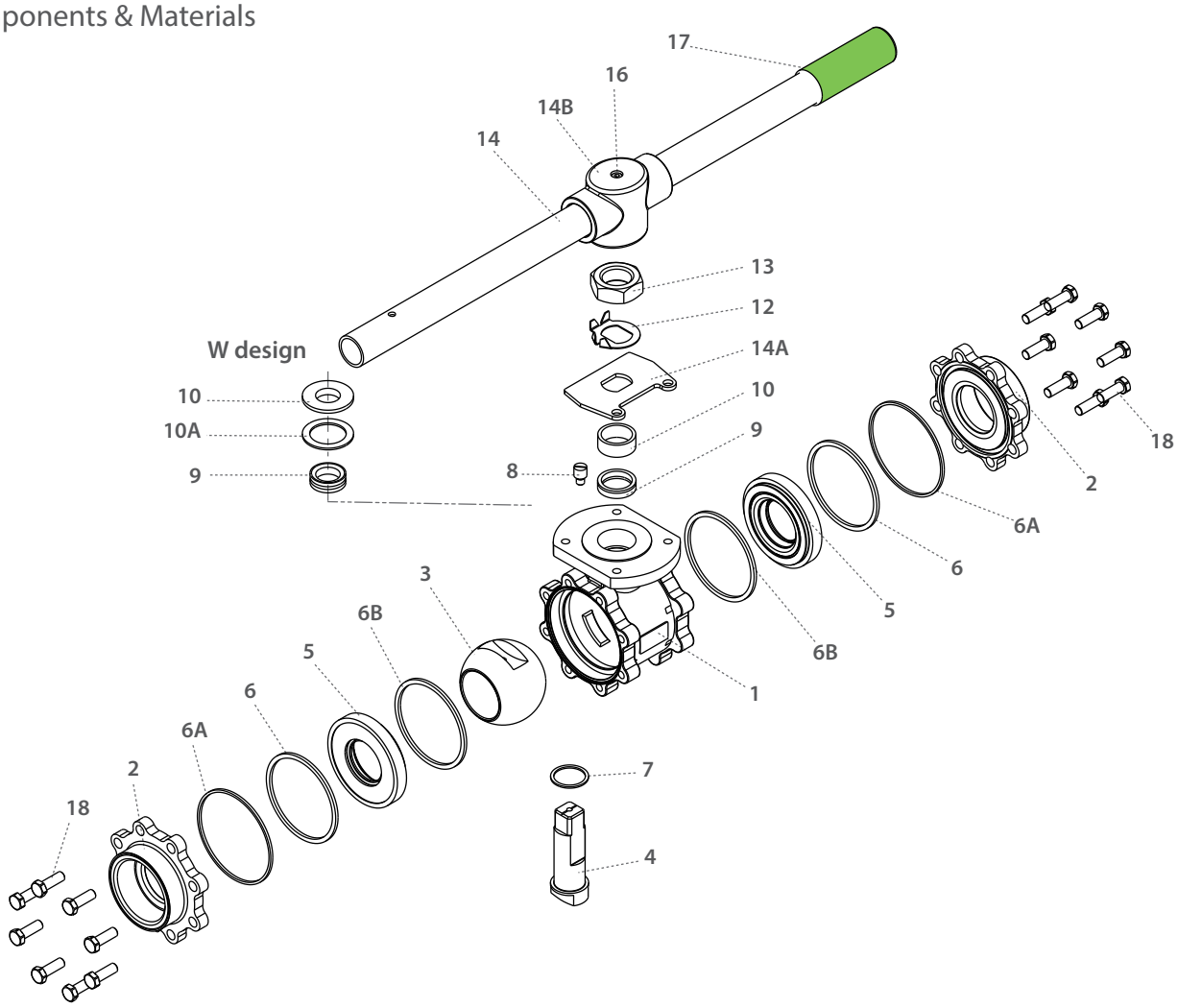
Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weld/Flanged/Tri-clamp end see Face To Face sizes page.

Std. port	Full port	Unit	Ball port	A	B	C	D	H	S	W	M	N	P	F		TxL	Weight kg/lb	Kv Cv
DN80	DN65	mm	63.5	200.8	115.0	110.0	179.5	227.0	916.0	140.0	28.45	1"-14 UNS-2A	26.2	F12	125.0	M12X15	25.0	301
3"	2½"	inch	2.50	7.91	4.53	4.33	7.07	8.94	36.06	5.51	1.12		1.03		4.92		55.00	348
DN100	DN80	mm	82.7	234.8	130.0	136.0	205.5	265.0	916.0	177.0	28.45	1"-14 UNS-2A	26.2	F14	140.0	M16X20	38.0	616
4"	3"	inch	3.26	9.24	5.12	5.35	8.09	10.43	36.06	6.97	1.12		1.03		5.51		83.60	713
DN150	DN100	mm	100.0	375.0	175.0	157.0	269.6	-	-	217.0	35.9	2" UN-2A	40.0	F16	165.0	M20X24	60.0	746
6"	4"	inch	3.94	14.76	6.89	6.18	10.61	-	-	8.54	1.41		1.57		6.50		132.00	863

Z47W Z47Z 3"-6" | DN80-DN150 | CLASS 600

Floating Ball 3 Piece Up to W 260°C (500°F) | Z 450°C (842°F)

Components & Materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	Ends	Acc. Ordering Code	2
3**	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5**	Seats	Acc. Ordering Code	1
6*	Inner Body Seal	Graphite	2
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6B*	Seat Seal	Graphite	2
7*	Stem Thrust Seal	Graphite + Inconel, PEEK	1
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8	Stop Pin	S. Steel	1
9*	Stem Seal	Graphite, CF PTFEM	1
10	Follower	S. Steel	1

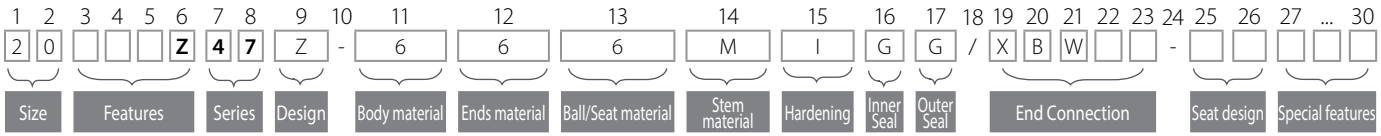
Item	Description	Material specification	Qty.
10A*	Slide Bearing	S. Steel	1
12	Stem Nut	S. Steel	1
13	Tab Lock Washer	S. Steel	1
14	Handle	S. Steel	1
14A	Stop Plate	S. Steel	1
14B	Wrench Head	S. Steel	1
16	Wrench Bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body Bolts	S. Steel	16-24
23	Tag (not shown)	S. Steel	1

* Seals kit components
** Ball and seats kit components

Z47

High Temperature - Ordering Code System

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



Size (1-2)		
Code	inch	mm
02	¼"	8
03	⅜"	10
05	½"	15
07	¾"	20
10	1"	25
12	1¼"	32
15	1½"	40
20	2"	50
25	2½"	65
30	3"	80
40	4"	100
60	6"	150

Features (3-6)	
Z	Metal seats
B	Full port
N	Control service

Series (7-8)	
Z47	Floating ball 3 piece

Design (9)	
Z	-60°C to 450°C (-76°F to 842°F)
W	-60°C to 260°C (-76°F to 500°F) HermetiX stem seal

Body material (11)	
6	CF8M (316H)
4*	A216 C.st WCB/ A105
F*	LF2

* Up to 425°C (800°F)

Ends material (12)	
6	CF3M / CF8M
F*	LF2
4*	CF3M / CF8M

* Up to 425°C (800°F)

Ball / Seat material (13) Sizes up to ¾" std. port	
M*	High Strength S. Steel

* ball - XM19, seat - 316

Ball / Seat material (13) Sizes ¾" full bore and up	
6	316
N*	St. Steel 410

* For O hardening only

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

Hardening (15)	
I	Cr3C2- Chromium Carbide with Nickel Chrome binder- HVOF technique
O*	WC-Co- Tungsten Carbide with Coblat binder- HVOF technique

* Only with N ball material

Inner Seal (16)	
G	Expanded graphite
B*	NBR
V**	Viton

* Up to 80°C (175°F)
** Up to 120°C (250°F)

Outer Seal (17)	
G	Expanded graphite

End connections (19-23)	
Welded	
XBW	Extended buttweld schd. 40
XSW	Extended socket weld
Threaded	
NPT	ASME B1.20.1 - National Pipe Taper thread
BSPT	EN 10226 - Pipe Taper thread
BSPP	ISO228-1, DIN3852 - Pipe Parallel thread
DIN3852	DIN3852 - Pipe Parallel thread
Flanged	
150	ASME B16.5 #150 RF
300	ASME B16.5 #300 RF
600	ASME B16.5 #600 RF
900	ASME B16.5 #900 RF
PN16	EN1092 PN16 RF
PN40	EN1092 PN40 RF
PN63	EN1092 PN63 RF
PN100	EN1092 PN100 RF
PN160	EN1092 PN160 RF

Seat design (25-26)	
Blank	(New type)

Special Features (27-30)	
B	Body made from rolled bar
Vxx	Characterized control ball xx = angle