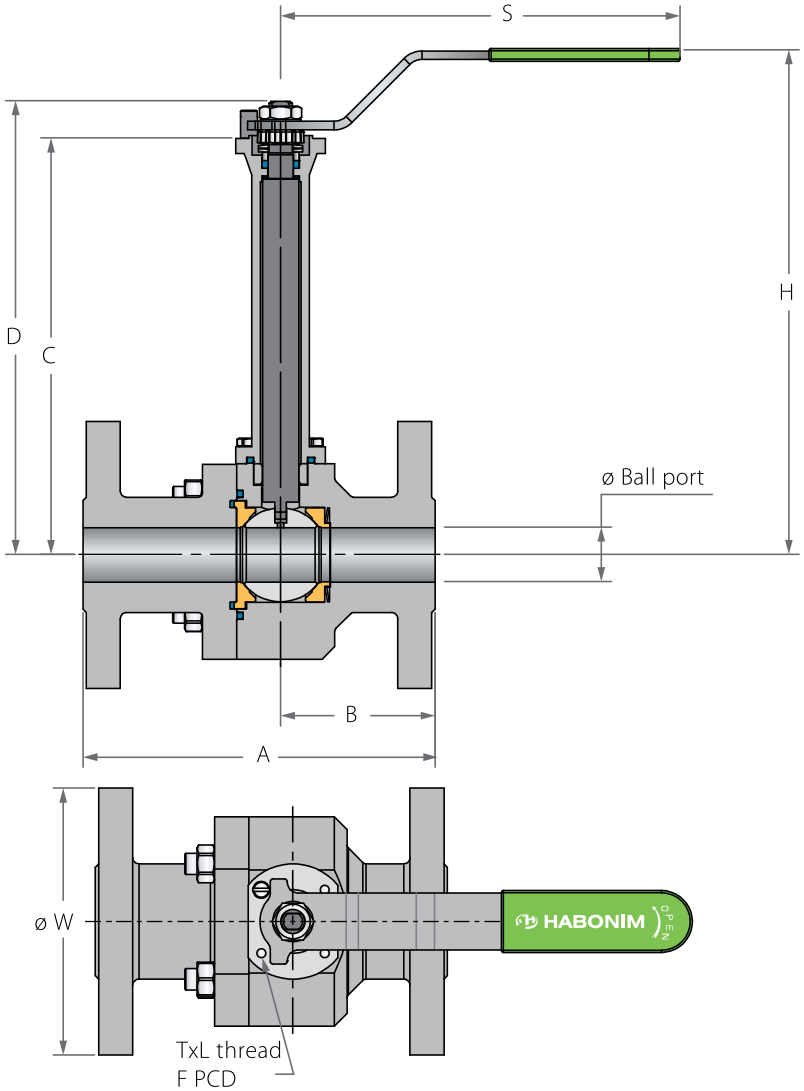
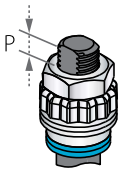
Z78T 1¼"-1½" | DN25-DN40 | PN40

Floating Ball Flanged Up to 538°C (1000°F)

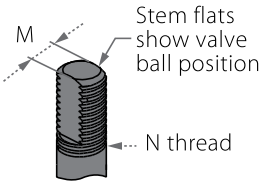
Valve dimensions



Preparation for actuation



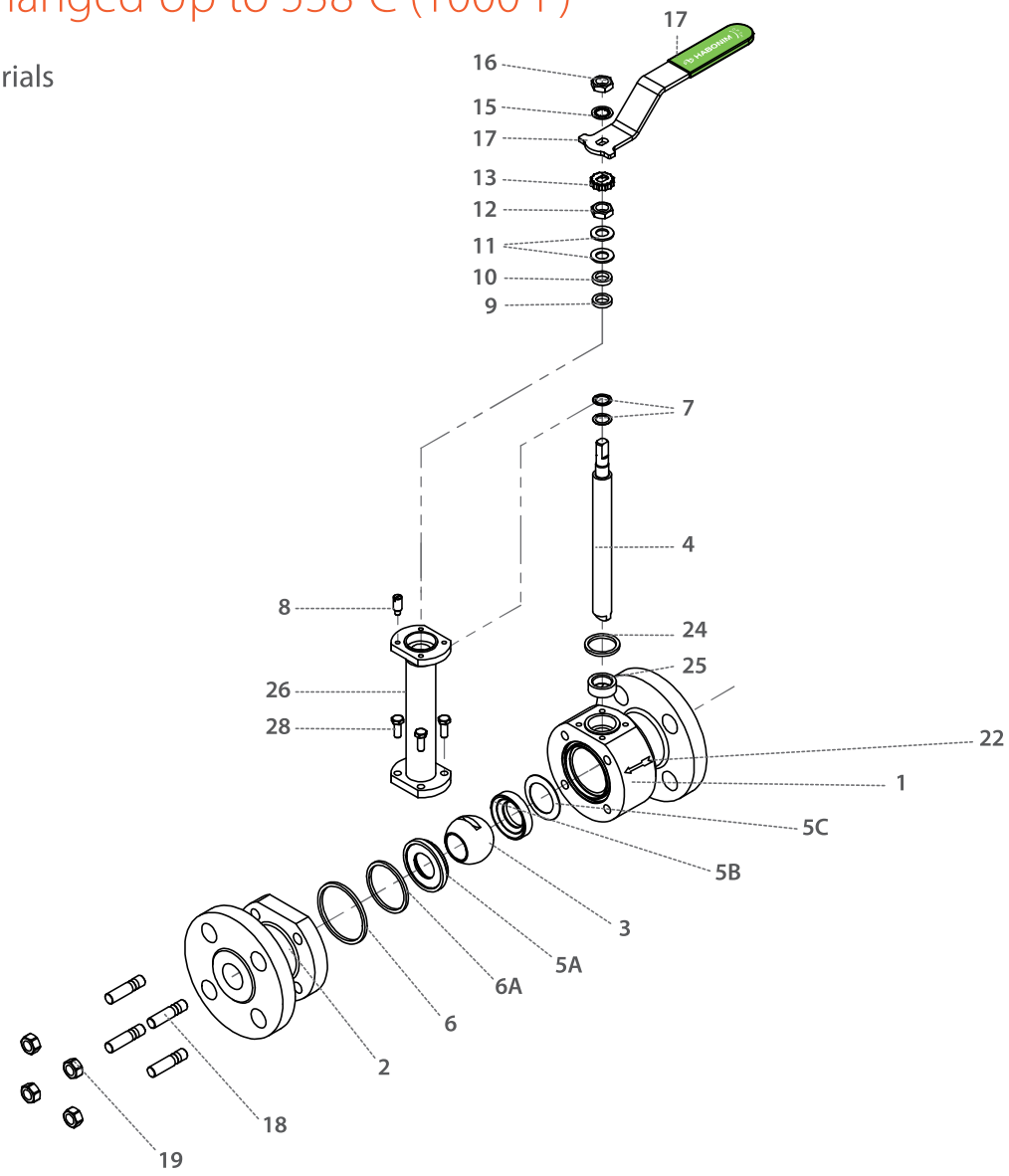
1¼" - 1½"
with nut



Std. port	Unit	Ball port	A		B	C	D	H	S	W	M	N	P	F		TxL	Weight kg/lb		Kv
			F1	F4													F1	F4	Cv
DN32	mm	31.8	180	130	56	196.7	226.3	272.5	237	140	8.71	9⁄16" UNF	8.5	(F05)	50	M6x12	-	-	-
1¼"	inch	1.25	7.10	5.11	2.20	7.74	8.91	10.73	9.33	5.51	0.34		0.33		1.97		-	-	-
DN40	mm	38.10	200.00	140.00	76.00	201.00	230.60	276.80	237.00	150.00	8.71	9⁄16" UNF	8.50	(F05)	50.00	M6x12	12.0	8.0	220
1½"	inch	1.50	7.87	5.51	2.99	7.91	9.08	10.90	9.33	5.91	0.34		0.33		1.97		26.4	17.6	255

Floating Ball Flanged Up to 538°C (1000°F)

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	1
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5A	Downstream seat	Acc. Ordering Code	1
5B	Upstream seat	Acc. Ordering Code	1
5C	Upstream seat spring	Inconel 718	1
6*	Body seal	Graphite	2
6A*	Seat seal	Graphite	1
7*	Stem thrust seal	A479 316L, Hardended with LTPN, B637 N07718 Inconel 718	2
8	Stop pin	S. Steel	1
9*	Stem seal	Graphite	1
10	Follower	S. Steel	1
11	Disc spring	S. Steel	2

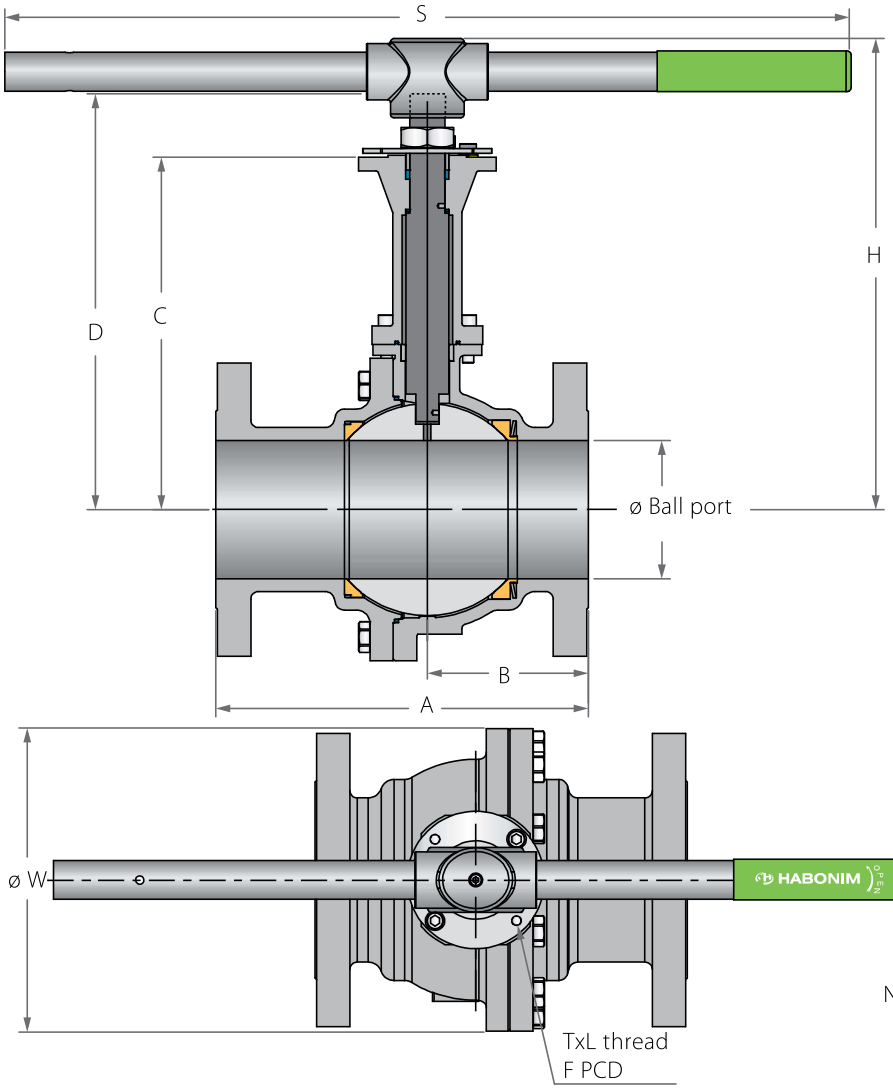
Item	Description	Material specification	Qty.
12	Stem nut	S. Steel	1
13	Locking clip	S. Steel	1
14	Handle	S. Steel	1
15	Serrated washer	S. Steel	1
16	Handle nut	S. Steel	1
17	Sleeve	PVC	1
18	Body bolts/studs	S. Steel	4
19	Body nuts	S. Steel	4
22	Arrow flow	S. Steel	1
23	Tag (not shown)	S. Steel	1
24	Bonnet seal	Graphite	1
25	Stem Bearing	S. Steel	1
26	Bonnet	S. Steel	1
29	Bonnet bolts	S. Steel	4

* Repair kit components

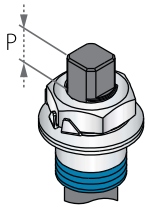
Z78T 2" | DN50 | PN40 Z77T 2"-6" | DN80-DN150 | PN16

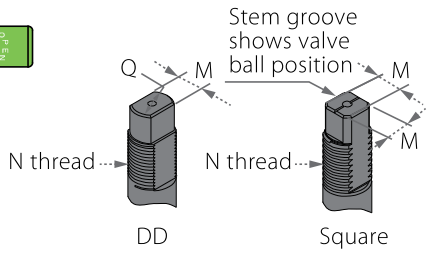
Floating Ball Flanged Up to 538°C (1000°F)

Valve dimensions



Preparation for actuation



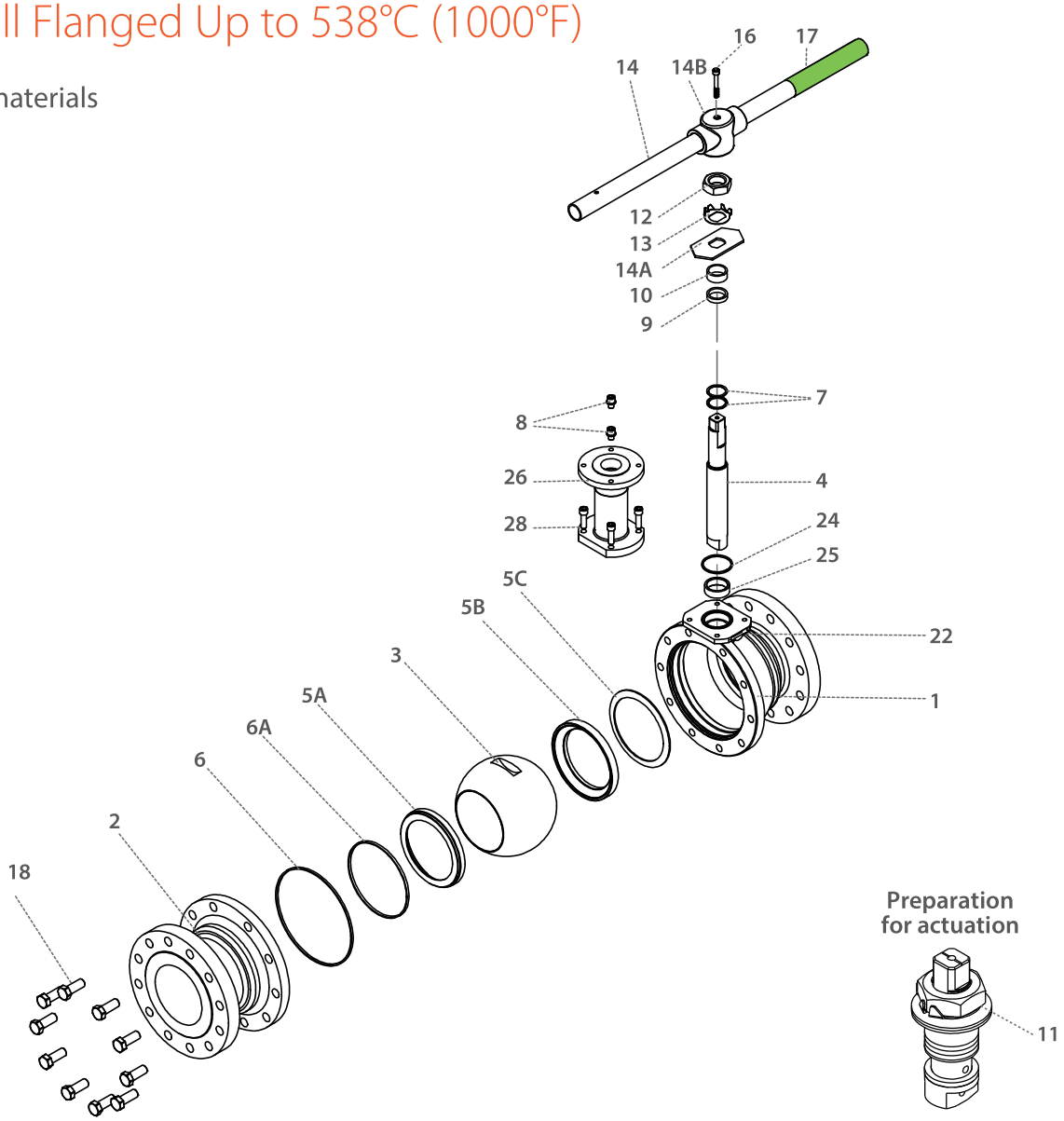


Std. port	Unit	Ball port	A	B	C	D	H	S	W	M	M (DD)	Q	N	P	F		TxL	Weight kg/lb	Cv
DN50	mm	51	150.00	69.00	222.80	264.40	290.00	256.00	165.00	-	13.90	20.00	M20x2.5	14.60	(F07)	70.00	M8x12	12.5	430
2"	inch	2.01	5.91	2.72	8.77	10.41	11.42	10.08	6.50	-	0.55	0.79		0.57		2.76		27.5	499
DN80	mm	80	180.00	77.50	260.40	307.00	347.20	401.00	200.00	18.90	15.90	22.70	1"-14 UNF-2A	16.70	(F10)	102.00	M10x20	31.0	1000
3"	inch	3.15	7.09	3.05	10.25	12.09	13.67	15.79	7.87	0.74	0.63	0.89		0.66		4.02		68.2	1160
DN100	mm	100	190.00	84.50	276.40	323.00	-	-	220.00	18.90	15.90	22.70	1"-14 UNF-2A	16.70	(F10)	102.00	M10x20	45.0	1830
4"	inch	3.94	7.48	3.33	10.88	12.72	-	-	8.66	0.74	0.63	0.89		0.66		4.02		99.0	2123
DN150	mm	150	350.00	163.50	382.20	451.70	-	-	285.00	28.45	23.75	35.20	1½"-12 UNF-2A	26.20	(F12)	125.00	M12x20	100.0	4380
6"	inch	5.91	13.78	6.44	15.05	17.78	-	-	11.22	1.12	0.94	1.39		1.03		4.92		220.0	5081

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

Floating Ball Flanged Up to 538°C (1000°F)

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	1
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5A	Downstream seat	Acc. Ordering Code	1
5B	Upstream seat	Acc. Ordering Code	1
5C	Upstream seat spring	Inconel 718	1
6*	Body seal	Graphite	2
6A*	Seat seal	Graphite	1
7*	Stem thrust seal	A479 316L, Hardended with LTPN, B637 N07718 Inconel 718x	2
8	Stop pin	S. Steel	1
9*	Stem seal	Graphite	1
10	Follower	S. Steel	1
11	Disc spring	S. Steel	2

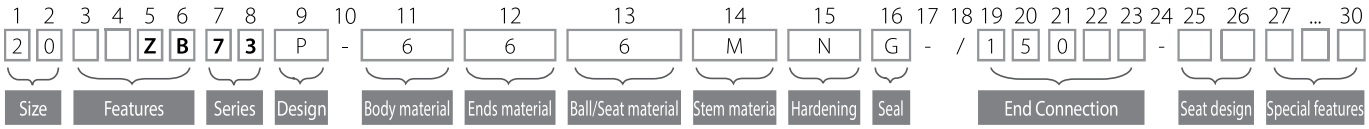
Item	Description	Material specification	Qty.
12	Stem nut	S. Steel	1
13	Tab lock washer	S. Steel	1
14***	Handle	S. Steel	1
14A	Stop plate	S. Steel	1
14B	Wrench head	S. Steel	1
16	Wrench bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body bolts	S. Steel	8-12
22	Arrow flow	S. Steel	1
23	Tag (not shown)	S. Steel	1
24	Bonnet seal	Graphite	1
25	Stem Bearing	S. Steel	1
26	Bonnet	S. Steel	1
28	Bonnet bolts	S. Steel	4-6

* Repair kit components
** Variety of coatings available

Z73 Z74 Z77 Z78

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
12	1¼"	32
15	1½"	40
20	2"	50
25	2½"	65
30	3"	80
40	4"	100
60	6"	150
80	8	200

Up to size 1" see Z47 series

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

Series (7-8)	
73	ANSI #150 full port
74	ANSI #300 full port
77	DIN PN 16 full port
78	DIN PN 40 full port

Design (9)	
P	-60°C to 400°C (-76°F to 752°F)
W	-60°C to 260°C (-76°F to 500°F) HermetiX stem seal
T	-60°C to 538°C (-76°F to 1000°F)

Body/Ends material (11-12)	
6	CF8M
4	A216 C.st WCB

Ball/Seat material (13)	
6	ASTM A479 S. Steel316L
N*	St. Steel 410

* For O hardening only

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

Hardening (15)	
N*	LTPN - Low Temperature Plasma Carbonitriding
I**	Cr3C2 - Chromium Carbide with Nickel Chrome binder - HVOF technique
0***	WC-Co - Tungsten Carbide with Cobalt binder- HVOF technique

* LTPN is standard offering up to size 2". Applicable only for P/W design

** standard offering for size 2½" and up

*** Only with N ball material

Seal Material (16)	
G	Expanded graphite
B	NBR
V	Viton
K	FFKM

End connections (19-23)	
Flanged	
150	ASME B16.5 #150 RF
300	ASME B16.5 #300 RF
PN16	EN1092 PN16 RF
PN40	EN1092 PN40 RF

Seat design (25-26)	
Blank	Type A seat design
TB	Type B seat design
TC	Type C seat design
TD	Type D seat design

Special Features (27-30)	
RTJ	Ring Type Joint
F1*	F1 - DIN 3202-1 RF face-to-face size
F4**	F4 - DIN 3202-1 RF face-to-face size
F5***	F5 - DIN 3202-1 RF face-to-face size
V30	Characterized control ball

* Up to 2"

** Up to 4"

*** 6" only