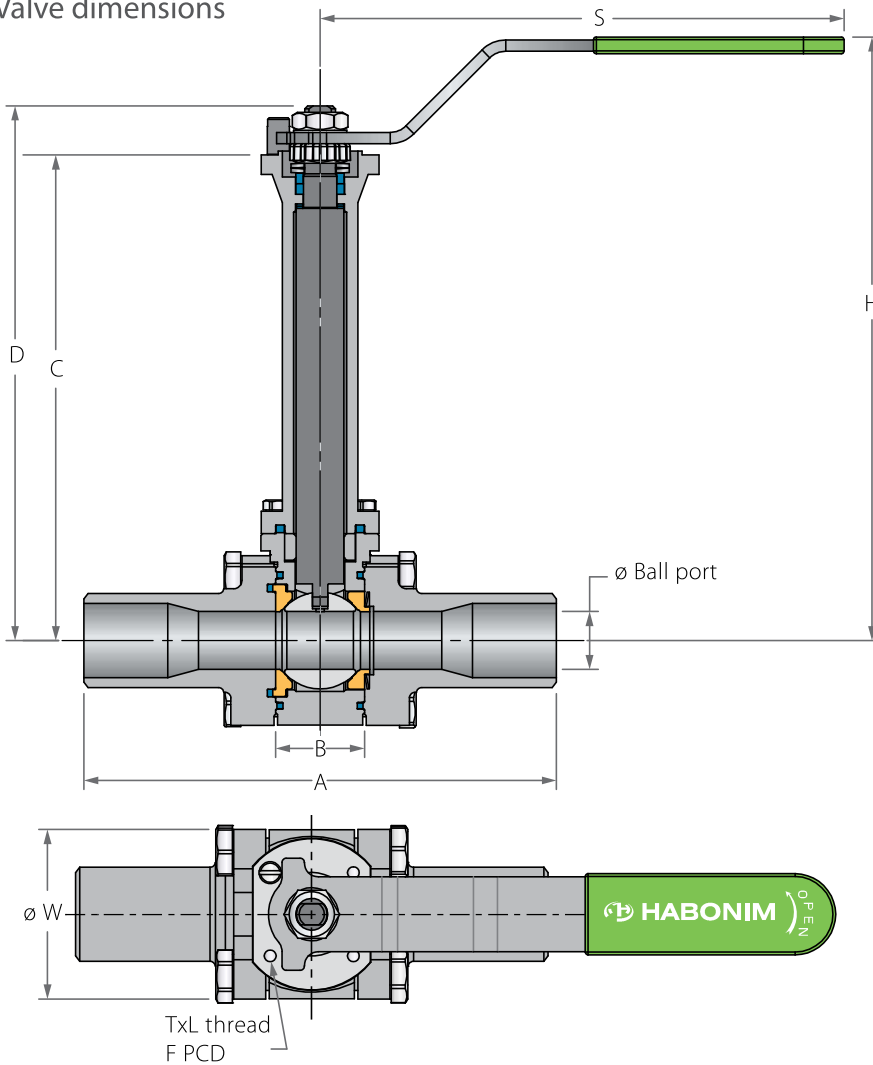


Z47T**Z47M**

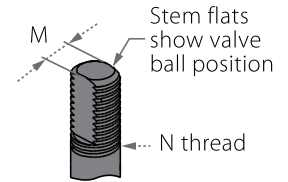
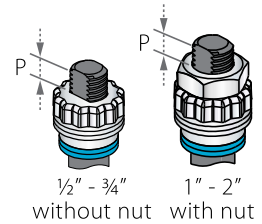
1/4"-2" | DN8-DN50 | CLASS 600

Floating Ball 3 Piece Up to **T** 538°C (1000°F) | **M** 650°C (1200°F)

Valve dimensions



Preparation for actuation



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

Std. port	Full port	Unit	Ball port	A		B	C	D	H	S	W	M	N	P	F	W	TxL	Weight kg/lb	Kv Cv
				Welded	Threaded														
DN15	DN8, DN10	mm	11.15	140.60	66.00	20.60	181.40	190.30	214.40	150.00	46.00	5.54	3/8" UNF	6.65	(F03)	36.00	M5x10	1.35	6.9
1/2"	1/4", 3/8"	inch	0.44	5.54	2.60	0.81	7.14	7.49	8.44	5.91	1.81	0.22		0.26		1.42		2.97	8.0
DN20	DN15	mm	14.30	146.95	70.60	24.55	183.40	192.30	216.40	150.00	52.10	5.54	3/8" UNF	6.65	(F03)	36.00	M5x10	1.55	10
3/4"	1/2"	inch	0.56	5.79	2.78	0.97	7.22	7.57	8.52	5.91	2.05	0.22		0.26		1.42		3.41	12
DN25	DN20	mm	20.65	168.75	94.00	31.75	190.40	207.90	231.40	230.00	60.50	7.54	7/16" UNF	7.40	(F04)	42.00	M5x10	2.85	28
1"	3/4"	inch	0.81	6.64	3.70	1.25	7.50	8.19	9.11	9.06	2.38	0.30		0.29		1.65		6.27	32
DN32	DN25	mm	25.50	179.25	108.50	41.25	195.40	212.90	236.40	230.00	69.00	7.54	7/16" UNF	7.40	(F04)	42.00	M5x10	3.55	49
1 1/4"	1"	inch	1.00	7.06	4.27	1.62	7.69	8.38	9.31	9.06	2.72	0.30		0.29		1.65		7.81	57
DN40	DN32	mm	31.80	189.40	116.00	48.40	195.40	224.90	248.40	237.00	79.20	8.71	9/16" UNF	8.50	(F05)	50.00	M6x12	4.50	69
1 1/2"	1 1/4"	inch	1.25	7.46	4.57	1.91	7.69	8.85	9.78	9.33	3.12	0.34		0.33		1.97		9.90	80
DN50	DN40	mm	38.10	200.30	128.00	56.30	200.40	229.90	253.40	237.00	90.70	8.71	9/16" UNF	8.50	(F05)	50.00	M6x12	6.00	102
2"	1 1/2"	inch	1.50	7.89	5.04	2.22	7.89	9.05	9.98	9.33	3.57	0.34		0.33		1.97		13.20	118

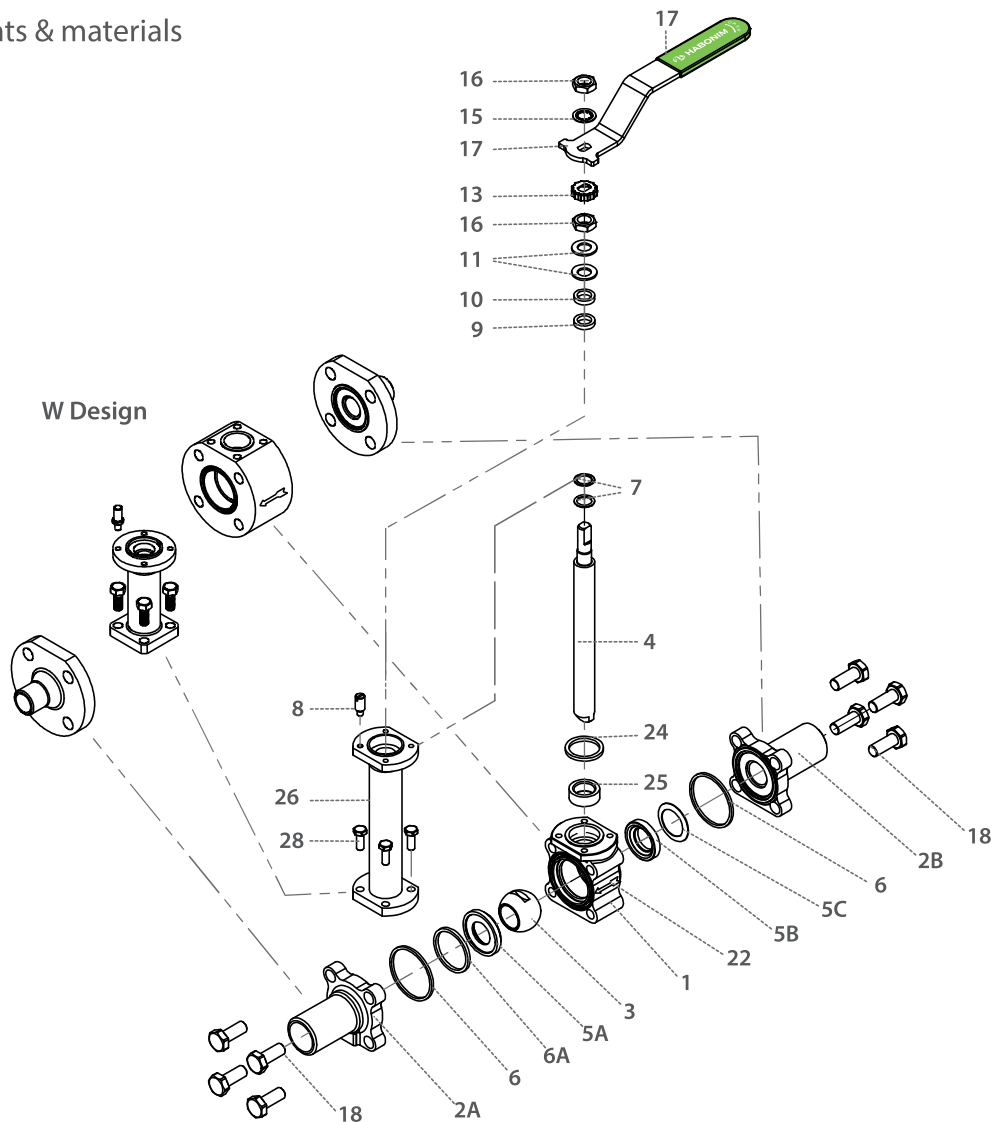
Z47T**Z47M**

1/4"-2" | DN8-DN50 | CLASS 600



Floating Ball 3 Piece Up to **T** 538°C (1000°F) | **M** 650°C (1200°F)

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2A	Downstream end	Acc. Ordering Code	1
2B	Upstream 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, Hardened with LTPN, B637 N07718 Inconel 718	2
8	Stop pin	S. Steel	1
9*	Stem seal	Graphite	1
10	Follower	S. Steel	1

Item	Description	Material specification	Qty.
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
13	Locking clip	S. Steel	1
14	Handle	S. Steel	1
15	Serrated washer	S. Steel	1
16	Handle nut	S. Steel	1
17	Sleeve	PVC	1
18	Body bolts	S. Steel	8
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

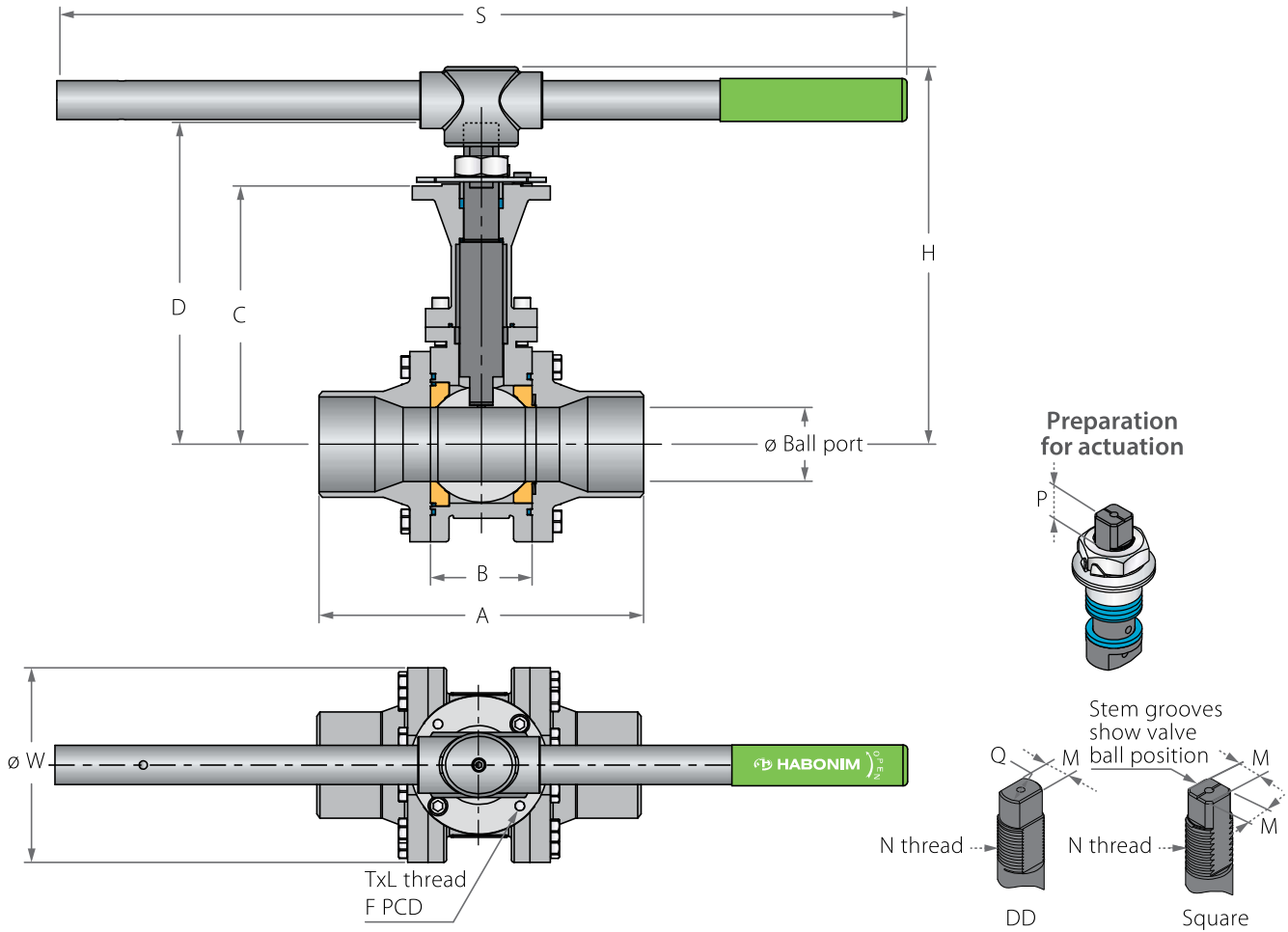
* Repair kit components

Z47T**Z47M**

2½"-8" | DN65-DN200 | CLASS 600

Floating Ball 3 Piece Up to **T** 538°C (1000°F) | **M** 650°C (1200°F)

Valve dimensions



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

Std. port	Full port	Unit	Ball port	A		B	C	D	H	S	W	M	M (DD)	Q	N	P	F	TxL	Weight kg/lb	Kv
				Welded	Threaded															Cv
DN65	DN50	mm	51	200	160.00	75	239.90	286.40	326.40	401	150	18.90	15.90	22.70	1"-14	16.70 (F10)	102.00	M10x20	19.2	208
2½"	2"	inch	2.01	7.87	6.30	2.95	9.44	11.28	12.85	15.79	5.91	0.74	0.63	0.89	UNS-2A	0.66	4.02	M10x20	42.2	241
DN80	DN65	mm	63.75	285.00	213.00	108.80	266.50	313.00	353.50	600.00	191.50	18.90	15.90	22.70	1"-14	16.70 (F10)	102.00	M10x20	30.0	300
3"	2½"	inch	2.51	11.22	8.39	4.28	10.49	12.32	13.92	23.62	7.54	0.74	0.63	0.89	UNS-2A	0.66	4.02	M10x20	66.0	348
DN100	DN80	mm	80	356	-	110	278.90	348.00	-	-	210	28.45	23.75	35.20	1½"-12	26.20 (F12)	125.00	M12X20	46.0	615
4"	3"	inch	3.15	14.02	-	4.33	10.98	13.70	-	-	8.27	1.12	0.94	1.39	UNF-2A	1.03	4.92	M12X20	101.2	713
DN150	DN100	mm	100	400.00	-	135	294.80	364.00	-	-	260	28.45	23.75	35.20	1½"-12	26.20 (F12)	125.00	M12X20	68.0	872
6"	4"	inch	3.94	15.75	-	5.31	11.61	14.33	-	-	10.24	1.12	0.94	1.39	UNF-2A	1.03	4.92	M12X20	149.6	1012
DN200	DN150	mm	150	490	-	190	397.20	510.00	-	-	360	35.92	35.92	46.50	2"-8	40.00 (F14)	140.00	M16X20	148.0	1552
8"	6"	inch	5.91	19.29	-	7.48	15.64	20.08	-	-	14.17	1.41	1.41	1.83	UN-2A	1.57	5.51	M16X20	325.6	1800
	DN200	mm	200	500	-	275	499.00	654.00	-	-	470	45.90	45.90	55.00	2¾"-8	50.00 (F16)	165.00	M20x30	380.0	1552
	8"	inch	7.87	19.69	-	10.83	19.65	25.75	-	-	18.50	1.81	1.81	2.17	UN-2A	1.97	6.50	M20x30	836.0	1800

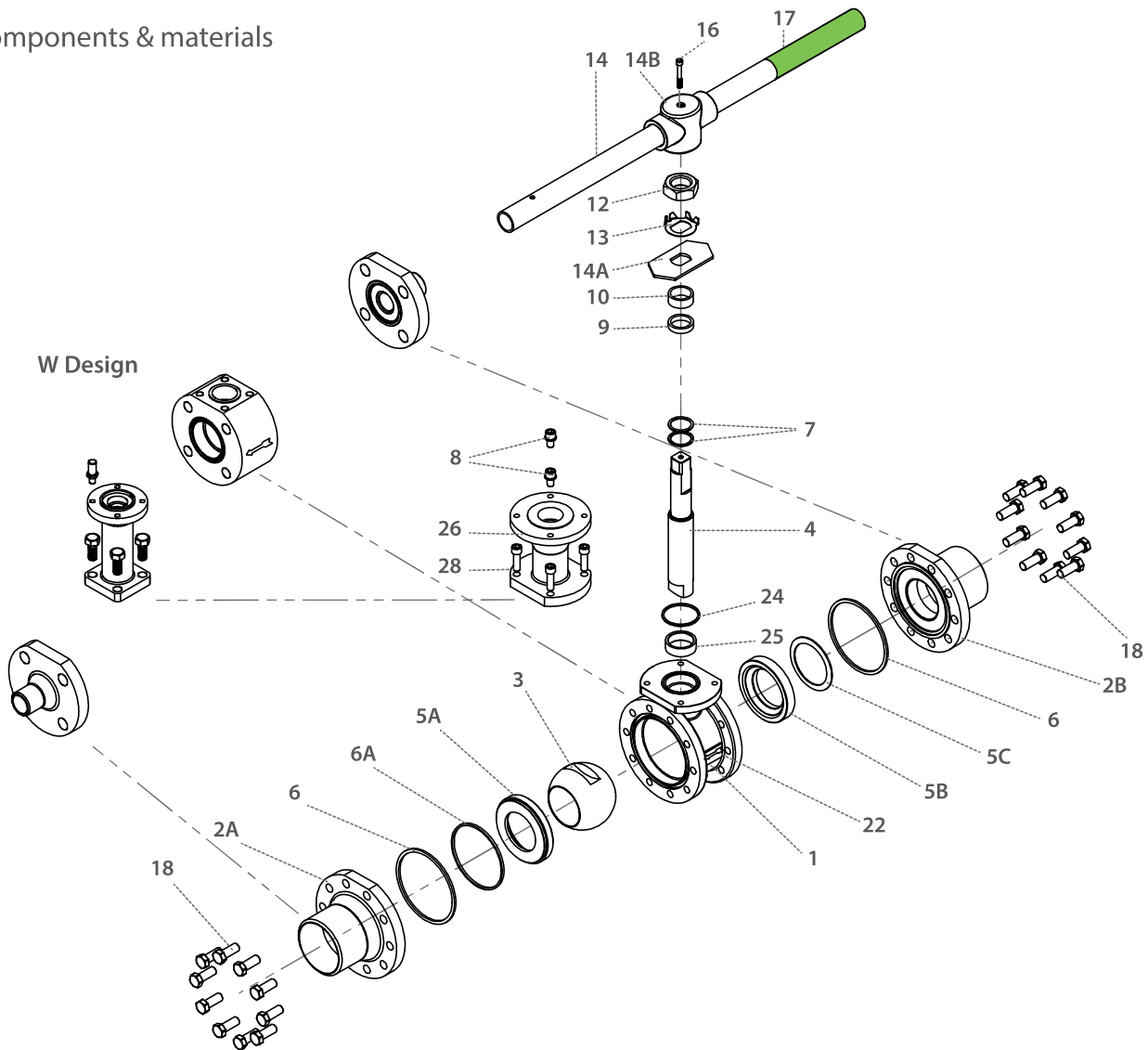
Z47T**Z47M**

2½"-8" | DN65-DN200 | CLASS 600



Floating Ball 3 Piece Up to **T** 538°C (1000°F) | **M** 650°C (1200°F)

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2A	Downstream end	Acc. Ordering Code	1
2B	Upstream 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
6B*	Seat seal	Graphite	1
7*	Stem thrust seal	A479 316L, Hardened 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	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	20-32
22	Arrow flow	S. Steel	1
23	Tag (not shown)	S. Steel	1
24	Bonnet seal	S. Steel	1
25	Stem Bearing	S. Steel	1
26	Bonnet	S. Steel	1
28	Bonnet bolts	S. Steel	4-6

* Repair kit components

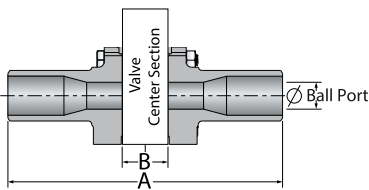
** Gear operator should be used for size 4" DN100 and above (handle components are not included)

Face To Face Sizes

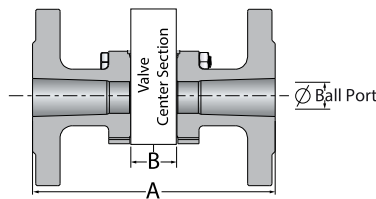
Valve Size	Unit	B		A-XBW		A-ETO	A-Flanged CLASS 150 FTF CLASS 300		A-Flanged CLASS 300 FTF CLASS 300		A-Flanged CLASS 600 FTF CLASS 600		A-Flanged DIN F1		A-TC
		Std. port	Full port	Std. port	Full port	Std. port	Std. port	Full port	Std. port	Full port	Std. port	Full port	Std. port	Full port	Full port
DN10	mm	20.6	20.6	140.6	143	108.6									
3/8"	inch	0.8	0.8	5.5	5.6	4.3									
DN15	mm	20.6	24.6	140.6	147	137	140	140	140	140	165	140*	130	130	88.8
1/2"	inch	0.8	1	5.5	5.8	5.4	5.5	5.5	5.5	5.5	6.5	5.5*	5.1	5.1	3.5
DN20	mm	24.6	31.7	147	168.7	147	152	152	152	152	152*	152*	150	150	101.6
3/4"	inch	1	1.2	5.8	6.6	5.8	6	6	6	6	6*	6*	5.9	5.9	4
DN25	mm	31.7	41.3	168.7	179.3	164.1	165.1	165.1	165.1	165.1	216	165.1*	160	160	114.3
1"	inch	1.2	1.6	6.6	7.1	6.5	6.5	6.5	6.5	6.5	8.5	6.5*	6.3	6.3	4.5
DN32	mm	41.3	48.4	179.3	189.4	179.3	178.1	178.1	178.1	178.1	178.1*	178.1*	180	180	
1 1/4"	inch	1.6	1.9	7.1	7.5	7.1	7	7	7	7	7*	7*	7.1	7.1	
DN40	mm	48.4	56.3	189.4	200.3	184	190	190	190	190	241	190*	200	200	139.8
1 1/2"	inch	1.9	2.2	7.5	7.9	7.2	7.5	7.5	7.5	7.5	9.5	7.5*	7.9	7.9	5.5
DN50	mm	56.3	72.6	200.3	232.6	193.5	216.1	216.1	216.1	216.1	292	216.1*	230	230	158.9
2"	inch	2.2	2.9	7.9	9.2	7.6	8.5	8.5	8.5	8.5	11.5	8.5*	9	9	6.3
DN65	mm	72.6	83.4	232.6	283.4	222.6	241	241	241	241	330	241*	290	290	213
2 1/2"	inch	2.9	3.3	9.2	11.2	8.8	9.5	9.5	9.5	9.5	13	9.5*	11.4	11.4	8.4
DN80	mm	83.4	108.8	283.4	348.8	250.4	282	282	282	282	356	282*	310	310	215.8
3"	inch	3.3	4.3	11.2	13.7	9.9	11.1	11.1	11.1	11.1	14	11.1*	12.2	12.2	8.5
DN100	mm	108.8	123	348.8	390	348.8	305	305	305	305	432	305*	350	350	245.4
4"	inch	4.3	4.8	13.7	15.4	13.7	12	12	12	12	17	12*	13.78	13.78	9.7
DN150	mm	146.1	180	444.1	180	444.1	403.1	403.1	403.1	403.1	559	403.1*	480	480	146.1
6"	inch	5.8	7.1	17.5	7.1	17.5	15.9	15.9	15.9	15.9	22	15.9*	18.9	18.9	5.8

* Comply with class 300 FTF

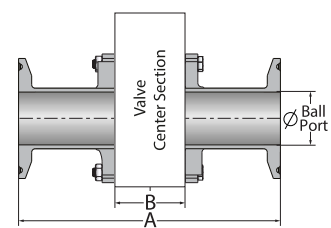
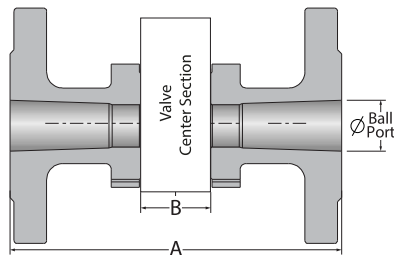
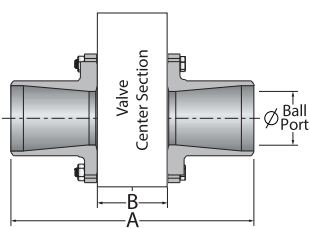
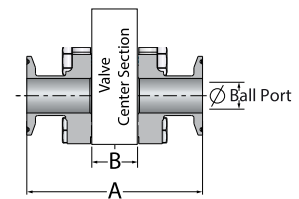
XBW / ETO



Flanged



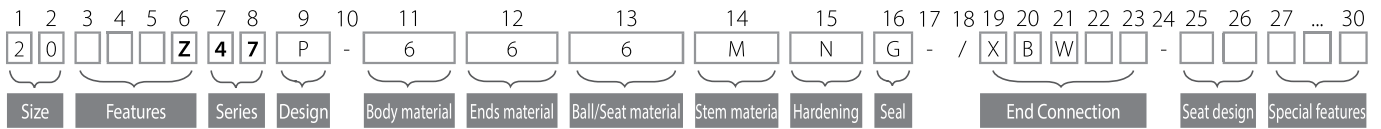
TC





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)	
47	Floating ball 3 piece

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)
M*	-60°C to 650°C (-76°F to 1200°F)

* available with H/J valve materials only

Body material (11)	
4*	A216 C.st WCB/ A105
6	CF8M
F	LF2
H**	321H
J**	F22

* Up to 425°C (800°F)
** For M design only

Ends material (12)	
6	CF3M
F	LF2
H*	321H
J*	F22
7**	Monel
D***	Duplex
K***	Super duplex

* For M design only
** Up to 475°C (887°F)
*** Up to 315°C (600°F)

Ball/Seat material (13)	
6	St. Steel
7*	Monel
D**	Duplex
K**	Super duplex
N***	St. Steel 410

* Up to 475°C (887°F)
** Up to 315°C (600°F)
*** 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
O***	WC-Co- Tungsten Carbide with Cobalt binder - HVOF technique

* 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)	
Welded	
XBW	Extended butt weld 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	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
B	Body made from rolled bar
Vxx	Characterized control ball xx = angle