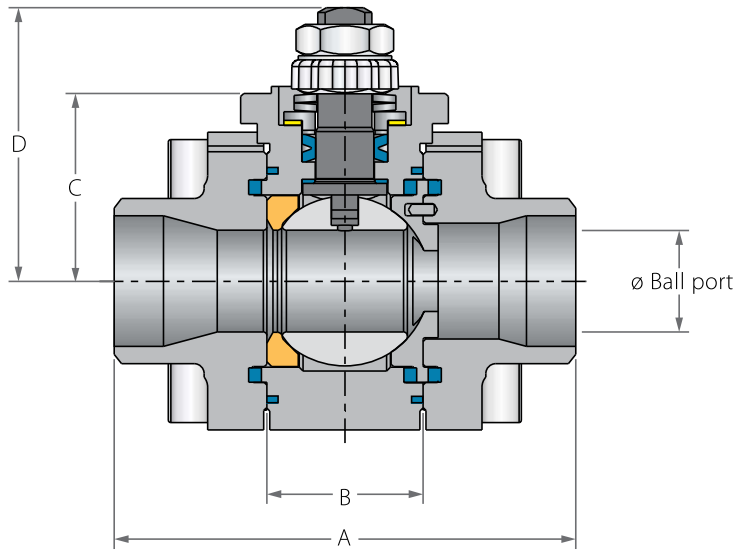
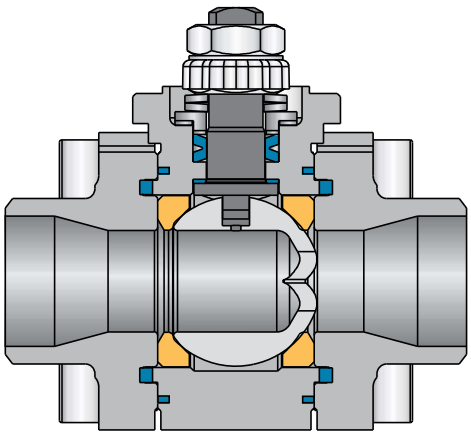
Control Floating Ball 3 Piece

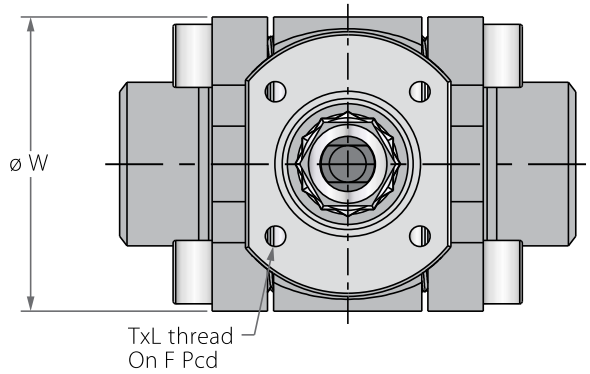
Valve dimensions

V Port

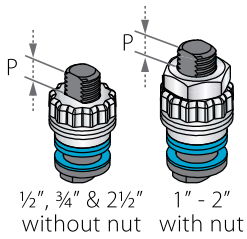


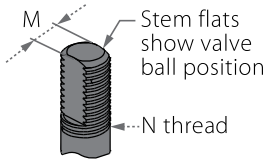
V Ball





Preparation for actuation



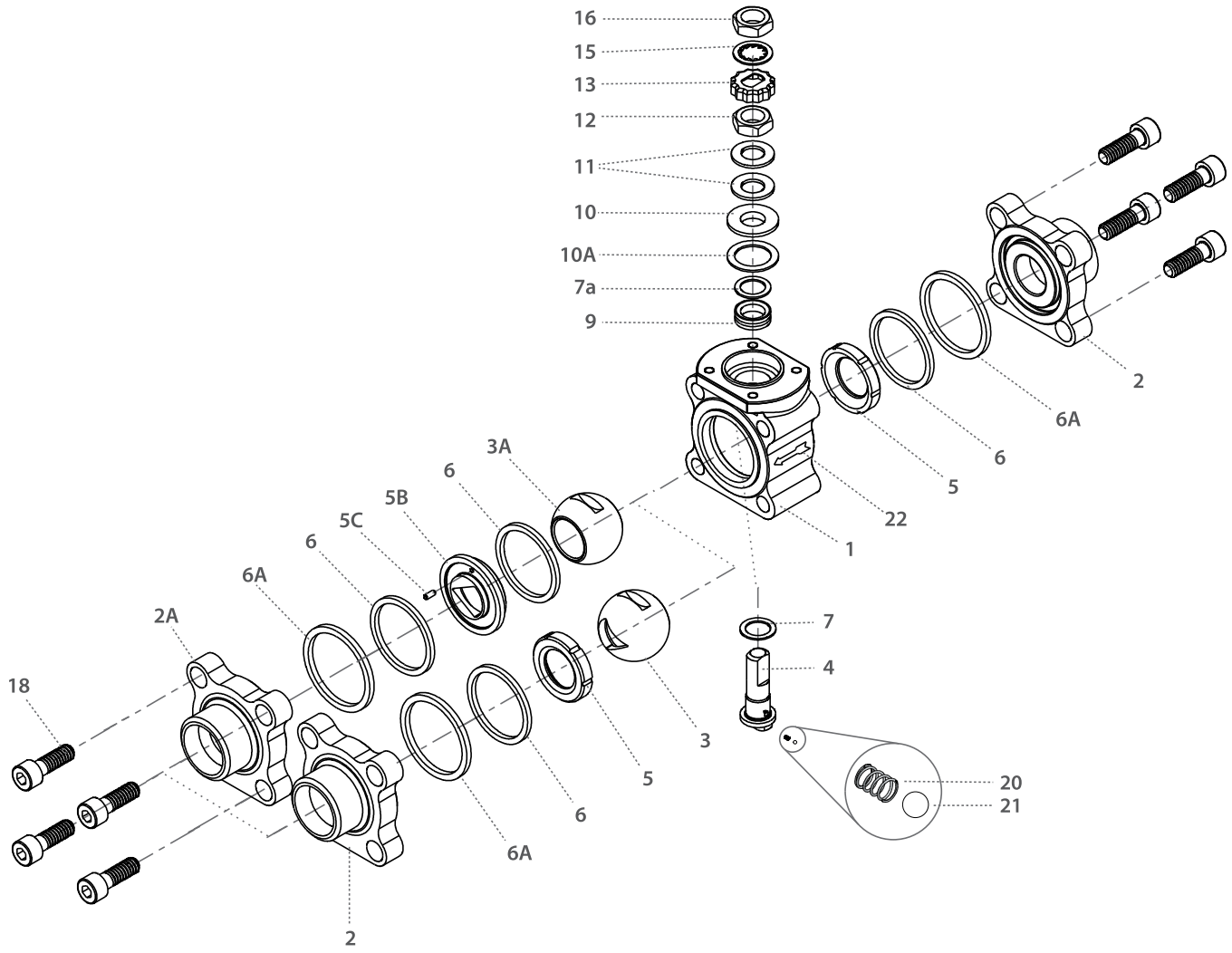


Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weald/Flanged/Tri-clamp end see Face To Face sizes page.

Std. port	Full port	Unit	Ball port	A	B	C	D	W	M	N	P	F		TxL	Weight kg/lb
DN15	DN10	mm	11.15	66.00	20.60	29.00	38.70	47.00	5.54	⅜"UNF	6.65	(F03)	36.00	M5X10	0.60
½"	⅜"	inch	0.44	2.60	0.81	1.14	1.52	1.85	0.22		0.26		1.42		1.33
DN20	DN15	mm	14.30	70.60	24.50	31.40	40.30	53.70	5.54	⅜"UNF	6.65	(F03)	36.00	M5X10	0.80
¾"	½"	inch	0.56	2.78	0.97	1.24	1.59	2.11	0.22		0.26		1.42		1.77
DN25	DN20	mm	20.60	93.70	31.70	38.20	55.60	63.70	7.54	7⁄16"UNF	7.40	(F04)	42.00	M5X10	1.60
1"	¾"	inch	0.81	3.69	1.25	1.50	2.19	2.51	0.30		0.29		1.65		3.54
DN32	DN25	mm	25.40	108.00	41.30	42.70	60.20	71.70	7.54	7⁄16"UNF	7.40	(F04)	42.00	M5X10	2.50
1¼"	1"	inch	1.00	4.25	1.62	1.68	2.37	2.82	0.30		0.29		1.65		5.53
DN40	DN32	mm	31.80	115.50	48.40	43.60	73.00	86.70	8.71	9⁄16"UNF	8.50	(F05)	50.00	M6X12	3.60
1½"	1¼"	inch	1.25	4.55	1.91	1.72	2.87	3.41	0.34		0.33		1.97		7.96
DN50	DN40	mm	38.10	128.00	56.30	48.30	77.80	96.90	8.71	9⁄16"UNF	8.50	(F05)	50.00	M6X12	4.50
2"	1½"	inch	1.50	5.04	2.22	1.90	3.06	3.82	0.34		0.33		1.97		9.95
DN50	DN50	mm	50.80	158.00	72.60	70.00	88.10	108.00	8.71	9⁄16"UNF	13.50	(F07)	70.00	M8X12	9.50
2½"	2"	inch	2.00	6.22	2.86	2.76	3.47	4.25	0.34		0.53		2.76		21.0

Control Floating Ball 3 Piece

Valve dimensions



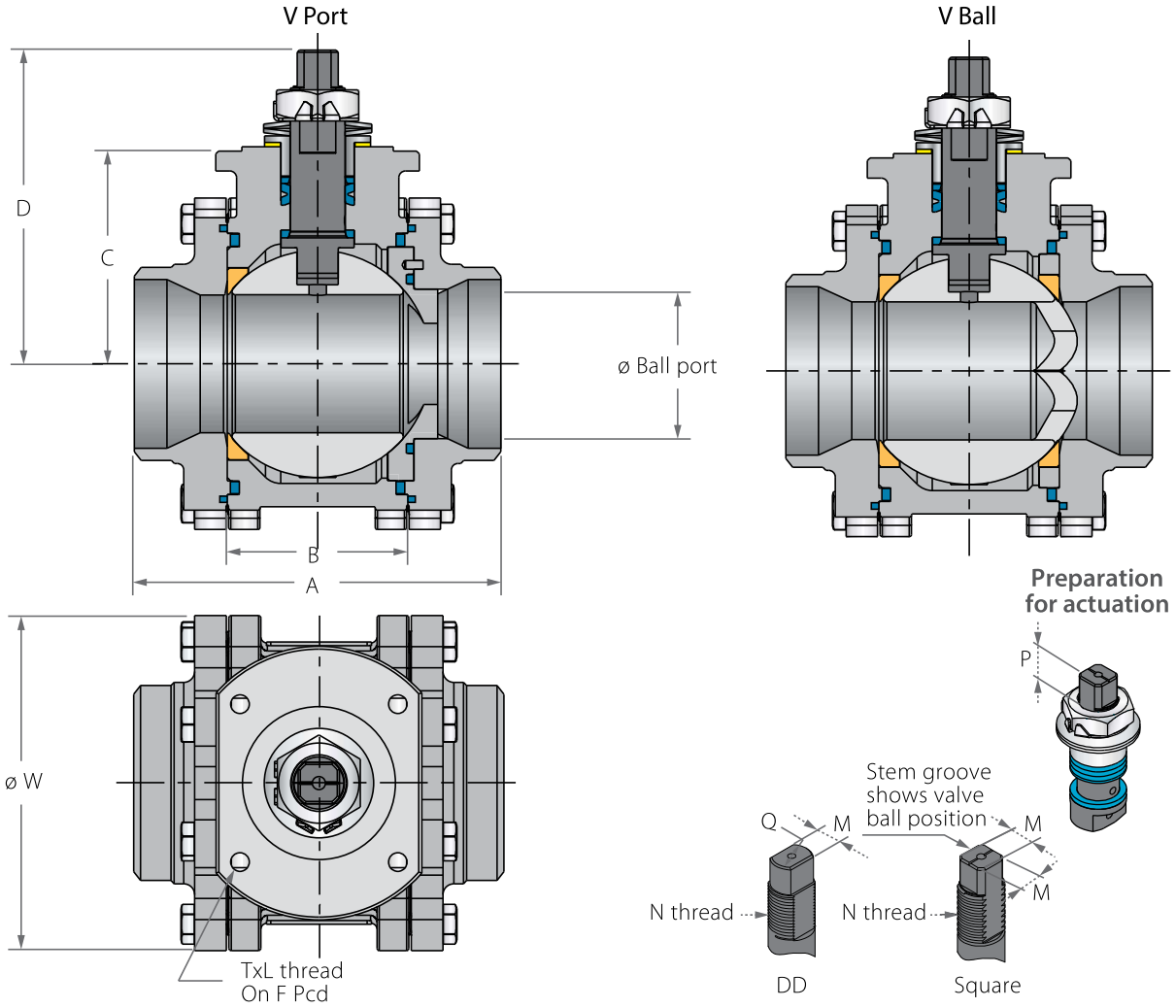
Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	1-2
2A	V- Port End	Acc. Ordering Code	1
3	V ball	Acc. Ordering Code	1
3A	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	1-2
5B	V seat	Acc. Ordering Code	1
5C	Dowel Pin	S. Steel	1
6*	Body seal	Acc. Ordering Code	2-3
6A*	Outer seal	Acc. Ordering Code	2
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE	1

Item	Description	Material specification	Qty.
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	S. Steel	1
10A*	Slide bearing	S. Steel	1
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
13	Locking clip	S. Steel	1
16	Handle nut	S. Steel	1
18	Body bolts	S. Steel	8
22	Arrow flow	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Repair kit components

Control Floating Ball 3 Piece

Valve dimensions

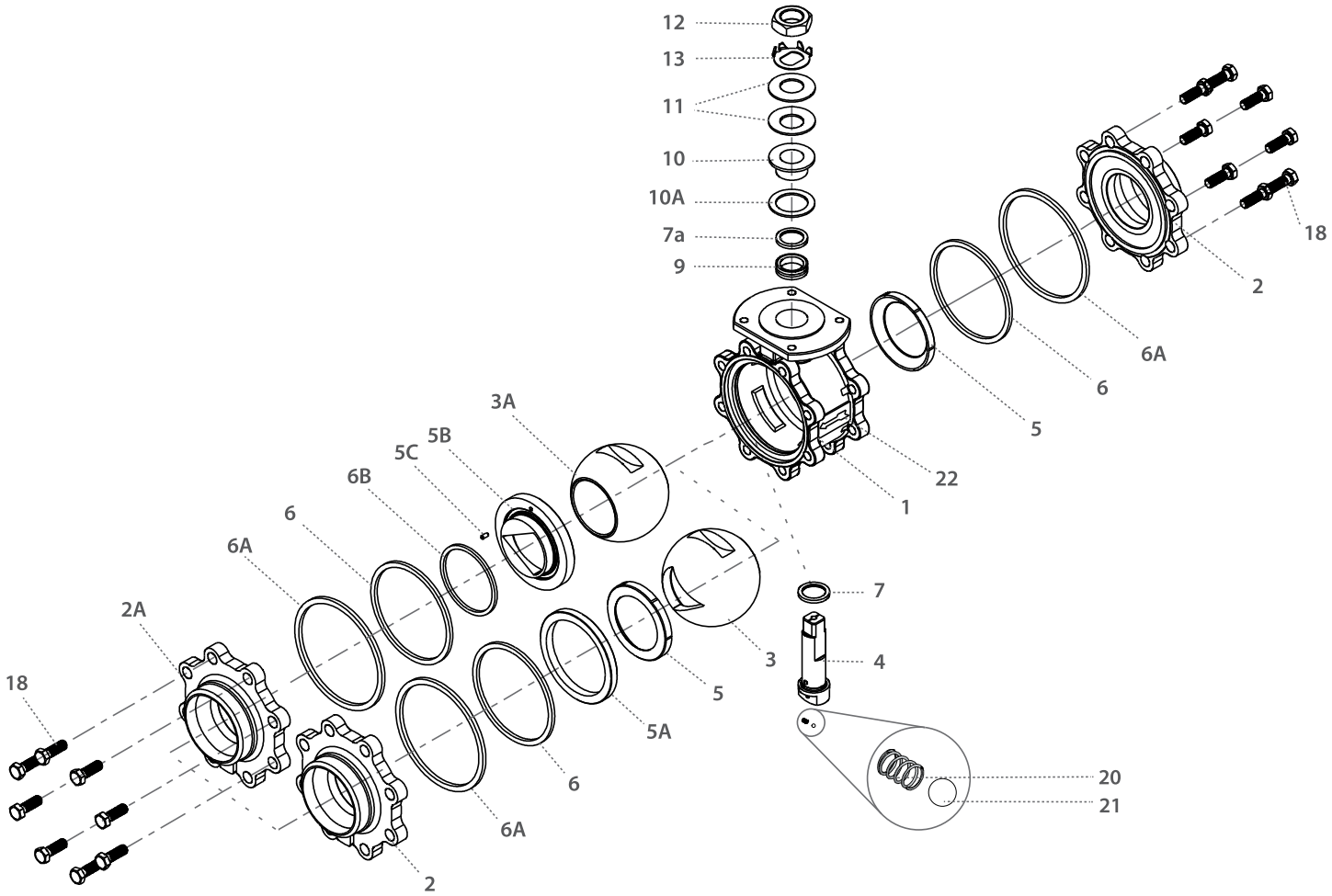


Valve Face To Face sizes are according to Habonim catalog data only, for Extended-weald/Flanged/Tri-clamp end see Face To Face sizes page.

Std. port	Full port	Unit	Ball port	A	B	C	D	W	M	N	P	Q	F		TxL	Weight kg/lb
DN80	DN65	mm	63.50	169.00	83.30	98.30	144.90	140.00	18.90	1"-14 UNS-2A	16.70	22.70	(F10)	102.00	M10x20	13.70
3"	2½"	inch	2.50	6.65	3.28	3.87	5.71	5.50	0.74		0.66	0.89		4.02		30.30
DN100	DN80	mm	82.60	214.00	108.80	114.10	160.70	177.00	18.90	1"-14 UNS-2A	16.70	22.70	(F10)	102.00	M10x20	23.70
4"	3"	inch	3.25	8.43	4.28	4.49	6.33	6.97	0.74		0.66	0.89		4.02		52.40
	DN100	mm	100.00	239.00	123.00	124.00	170.50	217.00	18.90	1"-14 UNS-2A	16.70	22.70	(F10)	102.00	M10x20	30.00
	4"	inch	3.94	9.41	4.84	4.88	6.71	8.54	0.74		0.66	0.89		4.02		66.30

Control Floating Ball 3 Piece

Valve dimensions



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	1-2
2A	V-End	Acc. Ordering Code	1
3	V-Ball	Acc. Ordering Code	1
3A	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	1-2
5A	Seat support	S. Steel	1
5B	V seat	Acc. Ordering Code	1
5C	Dowel pin	S. Steel	1
6*	Body seal	Acc. Ordering Code	2
6A	Outer seal	Acc. Ordering Code	2
6B	Seat seal	Acc. Ordering Code	1

Item	Description	Material specification	Qty.
7*	Stem thrust seal	PEEK, CF PEEK, PCTFE	1
7a*	Anti-abrasion ring	PEEK, CF PEEK, PCTFE	1
9*	Stem seal	CF PTFE, TFM	1
10	Follower	S. Steel	1
10A	Slide bearing	S. Steel	1
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
13	Tab lock washer	S. Steel	1
18	Body bolts	S. Steel	16
20	Anti-static spring	S. Steel	2
21	Anti-static plunger	S. Steel	2
22	Arrow flow	S. Steel	1
23	Tag (not shown)	S. Steel	1

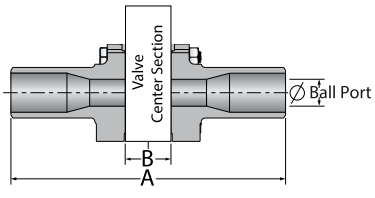
* Standard items supplied in repair kits

Face To Face Sizes

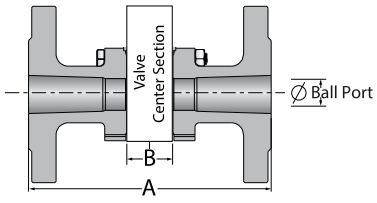
Valve Size	Unit	B		A-XBW		A-ETO	A-Flanged CLASS 150 FTF CLASS 300		A-Flanged CLASS 300 FTF CLASS 300		A-Flanged CLASS 600 FTF CLASS 600		A-Flanged DIN F1		A-TC
		Std. port	Full port	Std. port	Full port	Std. port	Std. port	Full port	Std. port	Full port	Std. port	Full port	Std. port	Full port	Full port
DN10	mm	20.6	20.6	140.6	143	108.6									
⅜"	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
½"	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
¾"	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	
1¼"	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
1½"	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	241*	330	290	290	213
2½"	inch	2.9	3.3	9.2	11.2	8.8	9.5	9.5	9.5	9.5	9.5*	13	11.4	11.4	8.4
DN80	mm	83.4	108.8	283.4	348.8	250.4	282	282	282	282	356	356	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	14	12.2	12.2	8.5
DN100	mm	108.8	123	348.8	390	348.8	305	305	305	305	432	432	350	350	245.4
4"	inch	4.3	4.8	13.7	15.4	13.7	12	12	12	12	17	17	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	559	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	22	18.9	18.9	5.8

* Complay with class 300 FTF

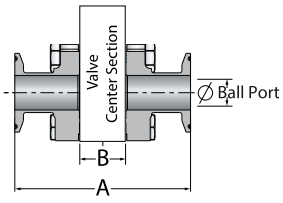
XBW / ETO

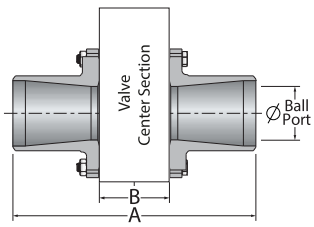


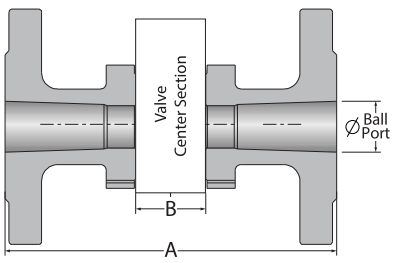
Flanged

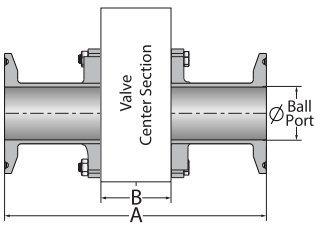


TC









Control Floating Ball 3 Piece - Ordering Code System

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	...	28	29	30
6	0				N	4	7	W	-	6	M	6	6	A	T	S	/	B	W			-	S	0	8	-	
Size		Features				Series		Design		Body material	Ends material	Ball/Stem material		Seat material	Inner Seal	Outer Seal		End Connection					Control Feature				Special features

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

Features (3-6)	
N	Control valve
F	Fire safe
B	Full port
O	Oxygen service
C	Cryogenic [R]
Z	High Temp. (MTM) [R]
H	Hydrogen Service

Series (7-8)	
47	Floating ball 3 piece

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

Body material (11) [R]
Per base series

Ends material (12) [R]
Per base series

Ball material (13)	
6*	S. SteelCF8M/CF3M
W**	Hasteloy-C22
S**	254SMO
D**	Duplex
K**	Super Duplex
7**	Monel
A**	Alloy-20
C**	Hasteloy-C276

* V-port must use St. St. St. St. is optional for V-ball
** V-ball only

Stem Material (14)	
M	High Strength S. Steel
6	S. Steel316L
Z	Inconel 718 B637
W	Alloy-C22 B574
S	254SMO A479
A	Alloy-20 A351 CN7M
D	Duplex A479
K	Super Duplex A479
7	Monel
C	Hasteloy-C276

Seat material (15)	
P	CF PTFE
K	CF PEEK
A	TFM

Inner Seal material (16) [R]
Per base series

Outer Seal material (17) [R]
Per base series

End connections (19-23) [R]
Per base series

Control Feature (24-28)	
V-Port	
S08*	0.8mm Slot on downstream seat
S16*	1.6mm Slot on downstream seat
S32*	3.2mm Slot on downstream seat
V30	V30° Shape on downstream seat
V60	V60° Shape on downstream seat
V90	V90° Shape on downstream seat

* Up to 1"

V-Ball	
SB08*	0.8mm Slot on ball
SB16*	1.6mm Slot on ball
SB32*	3.2mm Slot on ball
VB30	V30° Shape on ball
VB60	V60° Shape on ball
VB90	V90° Shape on ball

* Up to 1"

Ball/Down stream Seat Surface hardering	
PN*	Low Temperature Plasma carboNitriding (Standard)

* Standared option up to 2"

Hardening	
I*	Cr3C2 - Chromium Carbide with Nickel Chrome binder - HVOF technique
O	WC-Co - Tungsten Carbide with Cobalt binder - HVOF technique

* Standared option for 2-½" and up

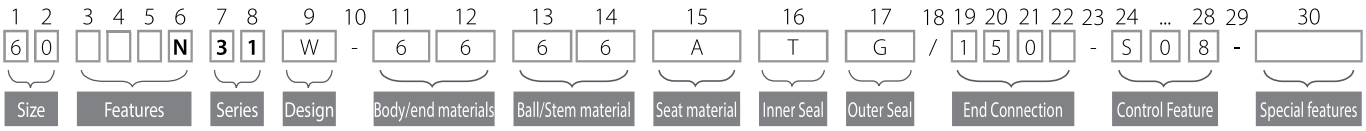
Special Features (30-...) [R]	
SRS	Self Relief Seat
B	Body made from barstock
EP	Electropolished
J2N05	Jacketed valve - number of ports(2), type(NPT) and size(½")
Valve Special Stem Seals	
Per base series	

[R]:
- For Cryogenic CNxx valve see options in Cryogenic chapter.
- For High Temp. (MTM) ZNxx valve see options in High Temp. (MTM) chapter.

N31 N32 N73 N74 N77 N78

Control Flanged Floating Ball - 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
05	½"	8
07	¾"	10
10	1"	15
12	1¼"	20
15	1½"	25
20	2"	32
25	2½"	40
30	3"	50
40	4"	65
60	6"	80
80*	8"	100

* 31/32 series only

Features (3-6)	
N	Control service
F	Fire safe
O	Clean assembly for O2 service
C	Cryogenic [R]
Z	High Temp. (MTM) [R]
H	Hydrogen Service

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

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

Body/Ends material (11-12) [R]
Per base series

Ball material (13) [R]	
6	S. SteelCF8M/CF3M
M	High Strength S. Steel
W	Hasteloy-C22
S	254SMO
D	Duplex
K	Super Duplex
7	Monel
A	Alloy-20
C	Hasteloy-C276

Stem material (14)	
M	High Strength S. Steel
6	S. Steel316L
Z	Inconel 718 B637
W	Alloy-C22 B574
S	254SMO A479
A	Alloy-20 A351 CN7M
D	Duplex A479
K	Super Duplex A479
7	Monel
C	Hasteloy-C276

Seat material (15)	
P	CF PTFE
K	CF PEEK
A	TFM

Inner Seal material (16) [R]
Per base series

Outer Seal material (17) [R]
Per base series

End connections (19-22)	
Flanged	
150	ASME B16.5 #150 RF
300	ASME B16.5 #300 RF
PN16	EN1092 PN16 RF
PN40	EN1092 PN40 RF

Control Feature (24-28)	
V-Port	
S08*	0.8mm Slot on downstream seat
S16*	1.6mm Slot on downstream seat
S32*	3.2mm Slot on downstream seat
V30	V30^0 Shape on downstream seat
V60	V60^0 Shape on downstream seat
V90	V90^0 Shape on downstream seat

* Up to 1"

V-Ball	
SB08*	0.8mm Slot on ball
SB16*	1.6mm Slot on ball
SB32*	3.2mm Slot on ball
VB30	V30^0 Shape on ball
VB60	V60^0 Shape on ball
VB90	V90^0 Shape on ball

* Up to 1"

Ball/Down stream Seat Surface hardering	
PN*	Low Temperature Plasma carboNitriding (Standard)

* standard up to 2"

Hardening	
I*	Cr3C2 - Chromium Carbide with Nickel Chrome binder - HVOF technique
O	WC-Co - Tungsten Carbide with Cobalt binder - HVOF technique

* standared from 2-½" and up

Special Features (24-30) [R]
Per base series

[R]:
- For Cryogenic CNxx valve see options in Cryogenic chapter.
- For High Temp. (MTM) ZNxx valve see options in High Tem. (MTM) chapter.