

C73

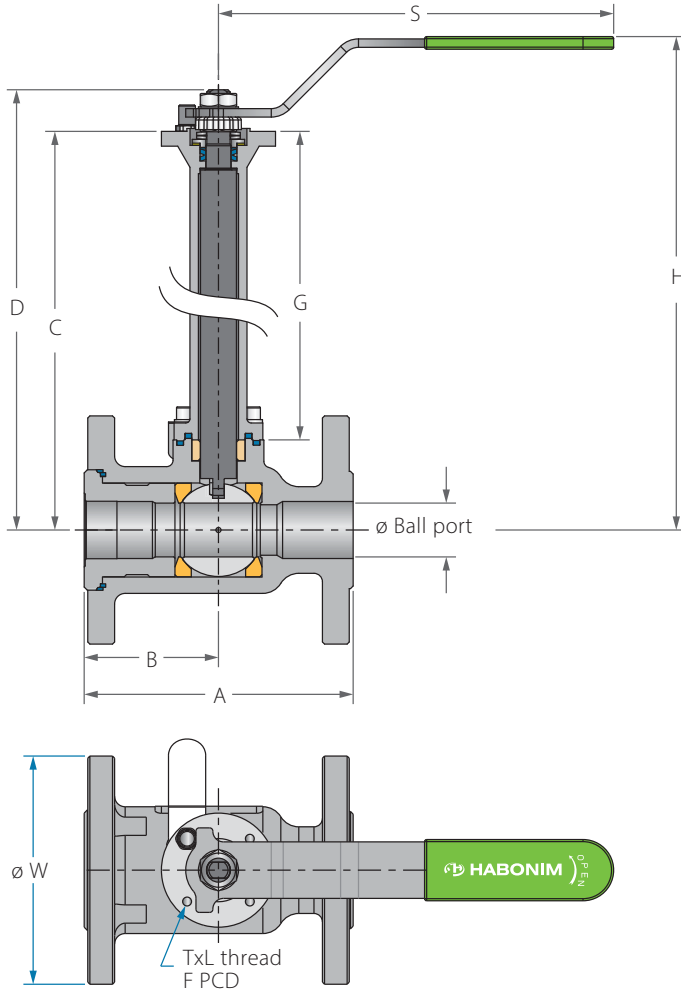
C74

C78

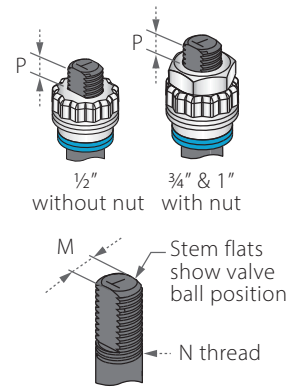
1/2"-1" | DN15-DN25
CLASS 150/300/PN 40

Cryogenic Flanged Full Port Floating Ball

Valve dimensions



Preparation for actuation



Full Port	Unit	Ball port	A_73		A_74		A_78		B	Standard design				6.0" bonnet				S	W	M	N	P	F	TxL	Weight		Kv
			F1	F4	C	D	G	H		C	D	G	H	Std.	6.0"	kg/lb	Cv										
DN15	mm	14.3	108.2	140	130	115	48.2	335.4	344.3	304	400	183.8	192.7	152.4	248.4	150	89	5.5	3/8" UNF	7.2 (F03)	36	M5X7	2.6	2.28	26		
1/2"	inch	0.56	4.26	5.51	5.12	4.53	1.9	13.2	13.56	11.97	15.75	7.24	7.59	6	9.78	5.91	3.5	0.22	0.28	1.42	M5X7	5.73	5.03	30			
DN20	mm	20.6	117	153	150	120	59	342.15	359.65	304	406.8	190.55	208.05	152.4	255.2	187	98	7.54	7/16" UNF	7.2 (F04)	42	M5X7	3.8	3.45	43		
3/4"	inch	0.81	4.61	6.02	5.91	4.72	2.32	13.47	14.16	11.97	16.02	7.5	8.19	6	10.05	7.36	3.86	0.3	0.28	1.65	M5X7	8.38	7.60	50			
DN25	mm	25.4	127	165	160	125	64	346.65	364.15	304	411.3	195.05	212.55	152.4	259.7	187	108	7.54	7/16" UNF	7.2 (F04)	42	M5X7	4.6	4.25	85		
1"	inch	1	5	6.5	6.3	4.92	2.52	13.65	14.34	11.97	16.19	7.68	8.37	6	10.22	7.36	4.25	0.3	0.28	1.65	M5X7	10.14	9.37	105			

C73

C74

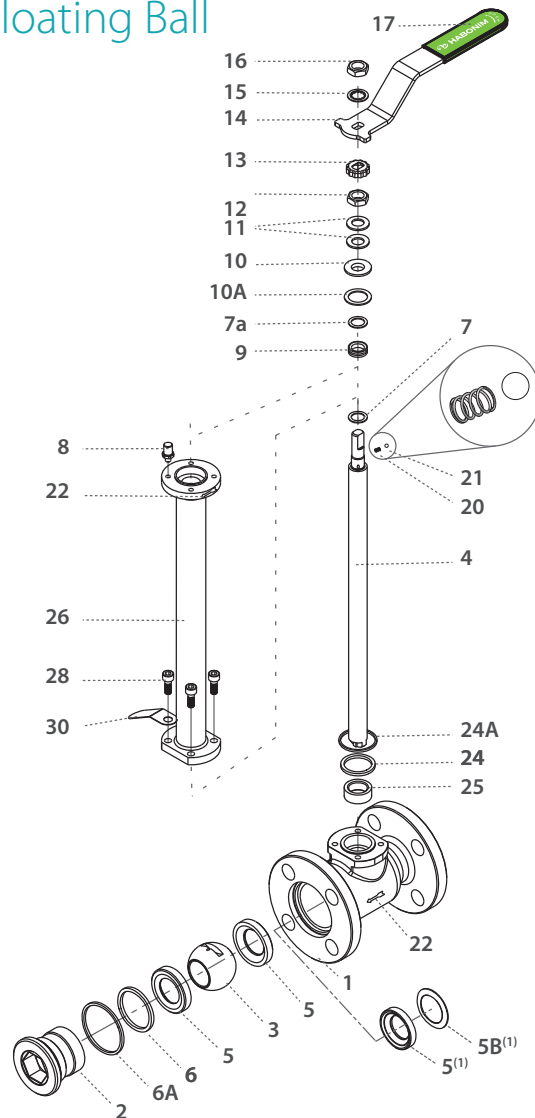
C78

½"-1" | DN15-DN25
CLASS 150/300/PN 40



Cryogenic Flanged Full Port Floating Ball

Components & materials



Item	Description	Material specifications	Qty.
1	Body	Acc. Ordering Code	1
2	Plug	Acc. Ordering Code	1
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5*	Seat	Acc. Ordering Code	2
5B	Upstream seat spring	Inconel 718	1
6*	Inner seal	TFM	1
6A*	Outer seal	Acc. Ordering Code	1
7*	Stem thrust seal	PCTFE	1
7a*	Anti-abrasion ring	PCTFE	1
8	Stop pin	S. Steel	1
9*	Stem seal	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

Item	Description	Material specifications	Qty.
14	Handle	S. Steel	1
15	Serrated washer	S. Steel	1
16	Handle nut	S. Steel	1
17	Sleeve	PVC	1
20	Anti-static spring	S. Steel	1
21	Anti-static plunger	S. Steel	1
22	Arrow flow	S. Steel	2
23	Tag (not shown)	S. Steel	1
24*	Bonnet inner seal	TFM	1
24A*	Bonnet outer seal	Acc. Ordering Code	1
25*	Stem bearing	PTFE	1
26	Bonnet	S. Steel	1
28	Bolt	S. Steel	4
30	Dog tag	S. Steel	1

* Repair kit components

⁽¹⁾ Optional Dynamic seat design

C73

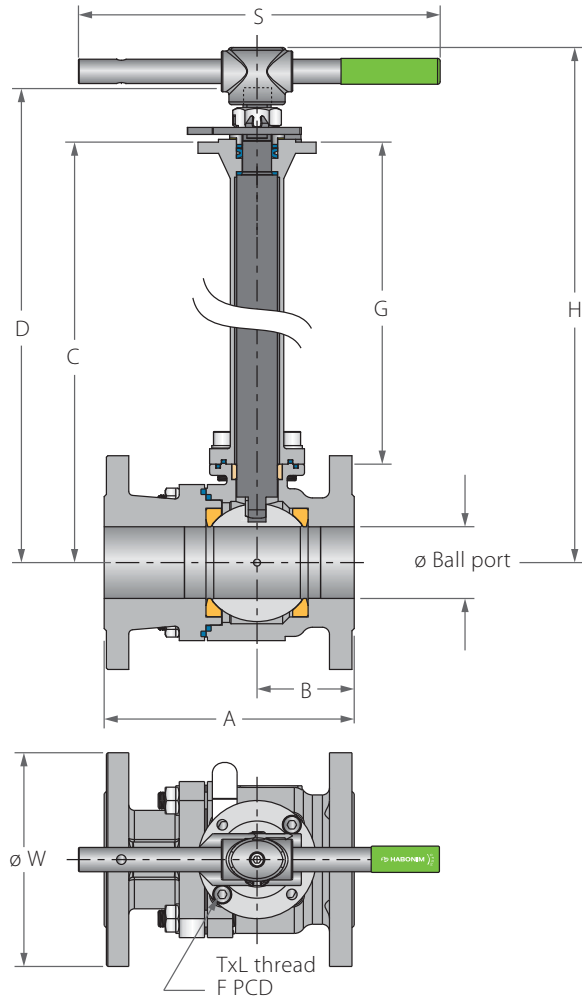
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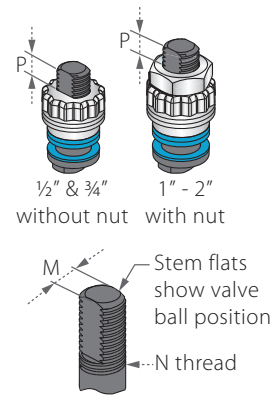
1½"-2" | DN40-DN50
CLASS 150/300/PN 40

Cryogenic Flanged Full Port Floating Ball

Valve dimensions



Preparation for actuation



Full Port	Unit	Ball port	A_73	A_74	A_78		B	Standard design				6.0" bonnet				S	W	M	N	P	F	TxL	Weight Std.	kg/lb	Kv Cv
					F1	F4		C	D	G	H	C	D	G	H										
DN40	mm	38.1	165	190.5	200	-	68	352.3	381.8	304	406.6	200.65	230.15	152.4	255	237	127	8.71	9/16" UNF	8.5 (F05)	50	M6X8	8.5	7.93	214
1½"	inch	1.5	6.5	7.5	7.87	-	2.68	13.87	15	11.97	16.01	7.9	9.06	6	10.04	9.33	5	0.34		0.33	1.97		18.73	17.48	250
DN50	mm	51	178	216	230	150	69	397.5	439.1	327.5	430.35	222.4	264	152.4	255.25	400	152	13.9	M20x2.5	13.5 (F07)	70	M8X8	16	14.5	410
2"	inch	2.01	7.01	8.5	9.06	5.91	2.72	15.65	17.29	12.89	16.94	8.76	10.39	6	10.05	15.75	5.98	0.55		0.53	2.76		35.2	31.9	480

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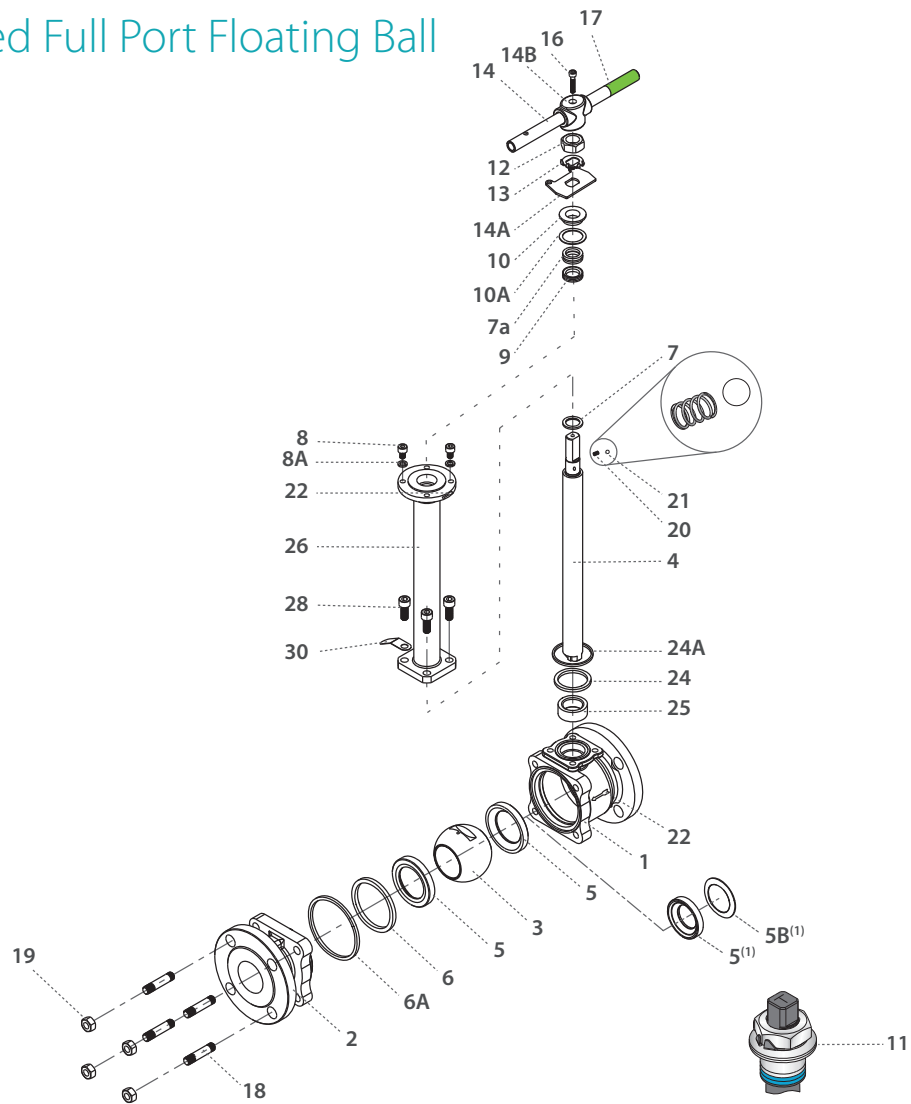
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C78

1½"-2" | DN40-DN50
CLASS 150/300/PN 40

Cryogenic Flanged Full Port Floating Ball

Components & materials



Item	Description	Material specifications	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
5*	Seat	Acc. Ordering Code	2
5B	Upstream seat spring	Inconel 718	1
6*	Inner seal	TFM	1
6A*	Outer seal	Acc. Ordering Code	1
7*	Stem thrust seal	PCTFE	1
7a*	Anti-abrasion ring	PCTFE	1
8	Stop bolt	S. Steel	2
8A	Spring washer	S. Steel	2
9*	Stem seal	TFM, Graphite	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
14	Handle	S. Steel	1

Item	Description	Material specifications	Qty.
14A	Stop plate	S. Steel	1
14B	Wrench head	S. Steel	1
16	Wrench bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body bolt	S. Steel	4
19	Body Nut	EN3506-2 A4-80, A194 8M	4
20	Anti-static spring	S. Steel	1
21	Anti-static plunger	S. Steel	1
22	Arrow flow	S. Steel	2
23	Tag (not shown)	S. Steel	1
24*	Bonnet inner seal	TFM	1
24A*	Bonnet outer seal	Acc. Ordering Code	1
25*	Stem bearing	PTFE	1
26	Bonnet	S. Steel	1
28	Bolt	S. Steel	4
30	Dog tag	S. Steel	1

* Repair kit components

⁽¹⁾ Optional Dynamic seat design

C73

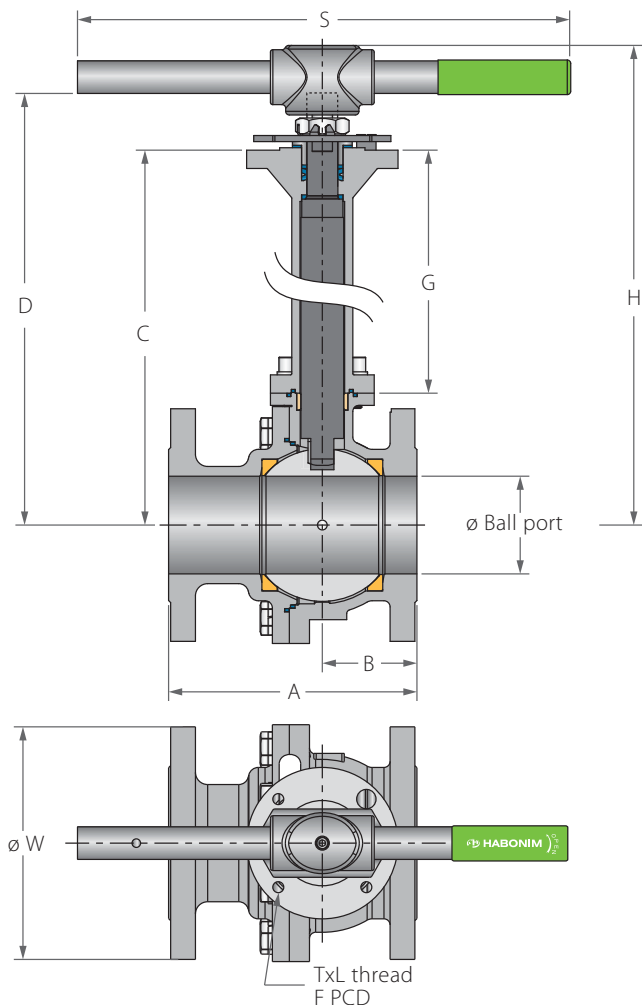
C74

C77

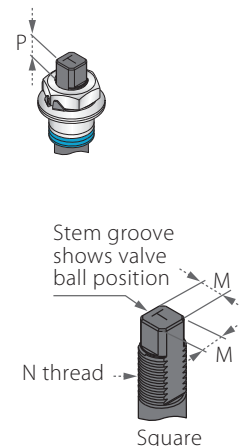
3"-8"⁽¹⁾ | DN80-DN200
CLASS 150/300/PN 16

Cryogenic Flanged Full Port Floating Ball

Valve dimensions



Preparation for actuation



Full Port	Unit	Ball port	A ₇₃	A ₇₄	A ₇₇		B	Standard design				6.0" bonnet				S	W	M	M _{DD}	N	P	F	TxL	Weight kg/lb		Kv
					F _{1,F5}	F ₄		C	D	G	H	C	D	G	H									Std.	6.0"	
DN80	mm	80	203	282	310	180	77.5	441.5	488.1	343.5	538.6	250.4	297	152.4	347.5	610	190.5	18.9	15.9	1"-14 UNS-2A	16.7 (F10)	102	M10X15	27	25	1111
3"	inch	3.15	7.99	11.1	12.2	7.09	3.05	17.38	19.22	13.52	21.2	9.86	11.69	6	13.68	24.02	7.5	0.74	0.63	0.66	4.02	M10X15	59.4	41.44	1300	
DN100	mm	100	229	305	350	190	84.5	467.5	514.1	343.5	566.6	276.4	323	152.4	375.5	610	230	18.9	15.9	1"-14 UNS-2A	16.7 (F10)	102	M10X15	44	42	2051
4"	inch	3.94	9.02	12.01	13.78	7.48	3.33	18.41	20.24	13.52	22.31	10.88	12.72	6	14.78	24.02	9.06	0.74	0.63	0.66	4.02	M10X15	67.22	64.58	2379	
DN150	mm	150	394	404	350	OPT	163.5	564	633.5	385	-	331.4	400.9	152.4	-	-	279.4	28.45	23.75	1½"-12 UNF-2A	26.2 (F12)	125	M12X15	97	93.5	4615
6"	inch	5.91	15.51	15.91	13.78	OPT	6.44	22.2	24.94	15.16	-	13.05	15.78	6	-	-	11	1.12	0.94	1.03	4.92	M12X15	154.28	145.24	5400	
DN200	mm	200	457	502	-	-	242.6	627	627	385	-	394.4	463.9	152.4	-	-	343	35.9	35.9	2" UN-2A	40 (F14)	140	M16X20	210	203	7949
8"	inch	7.87	17.99	19.76	-	-	9.55	24.69	24.69	15.16	-	15.53	18.26	6	-	-	13.5	1.41	1.41	1.57	5.51	M16X20	231.42	222.38	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.

⁽¹⁾ C77 up to 6"

C73

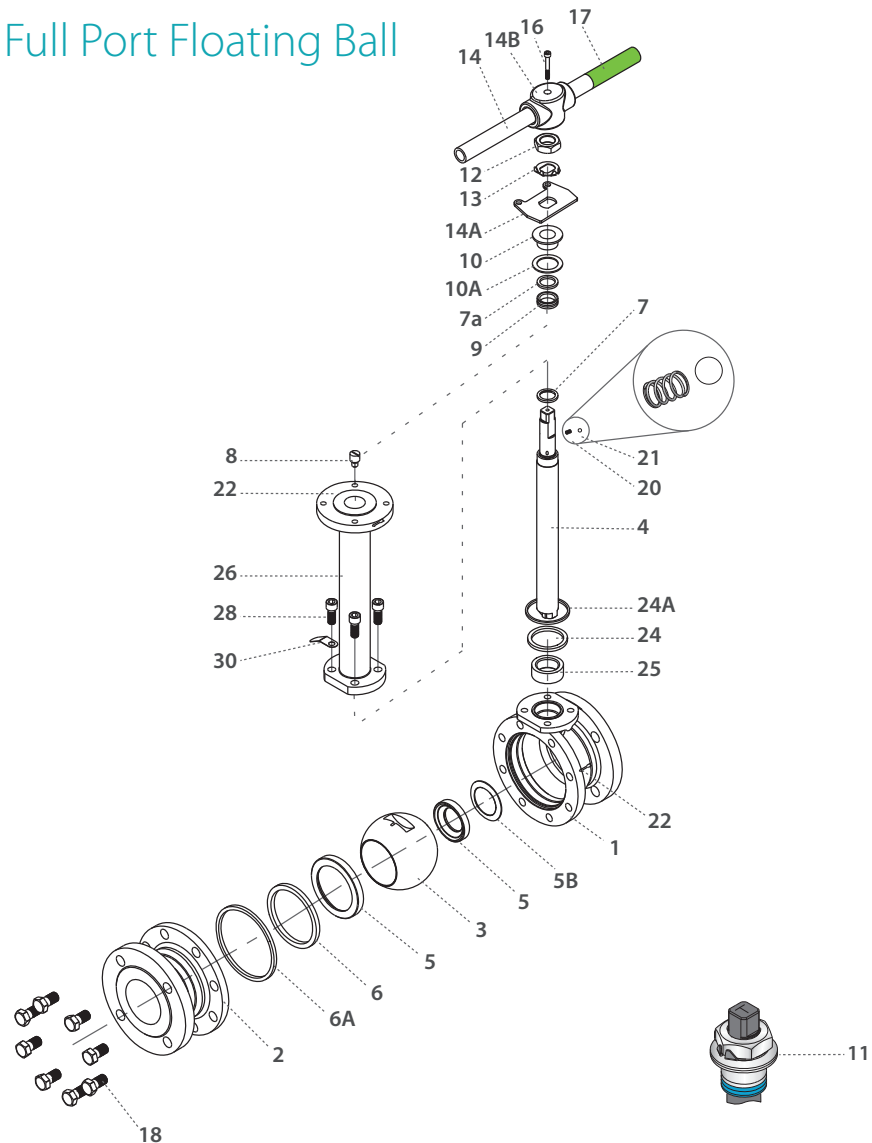
C74

C77

3"-8"⁽¹⁾ | DN80-DN200
CLASS 150/300/PN 16

Cryogenic Flanged Full Port Floating Ball

Components & materials



Item	Description	Material specifications	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
5*	Seat	Acc. Ordering Code	2
5B	Upstream seat spring	Inconel 718	1
6*	Inner seal	TFM	1
6A*	Outer seal	Acc. Ordering Code	1
7*	Stem thrust seal	PCTFE	1
7a*	Anti-abrasion ring	PCTFE	1
8	Stop pin	S. Steel	1
9*	Stem seal	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
14**	Handle	S. Steel	1
14A	Stop plate	S. Steel	1

Item	Description	Material specifications	Qty.
14B	Wrench head	S. Steel	1
16	Wrench bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body bolt	S. Steel	8-10
20	Anti-static spring	S. Steel	2
21	Anti-static plunger	S. Steel	2
22	Arrow flow	S. Steel	2
23	Tag (not shown)	S. Steel	1
24*	Bonnet inner seal	TFM	1
24A*	Bonnet outer seal	Acc. Ordering Code	1
25*	Stem bearing	PTFE	1
26	Bonnet	S. Steel	1
28	Bolt	S. Steel	4
30	Dog tag	S. Steel	1

* Repair kit components

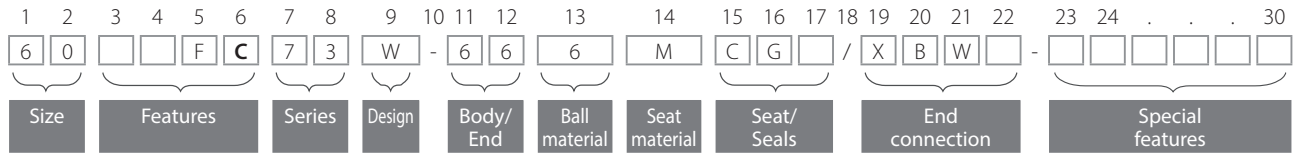
** Gear operator should be used for size 6" DN150 and above (handle components are not included)

⁽¹⁾ C77 up to 6"



Cryogenic Flanged Full Port 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	1/2"	15
07	3/4"	20
10	1"	25
12*	1 1/4"	32
15	1 1/2"	40
20	2"	50
25*	2 1/2"	65
30	3"	80
40	4"	100
60	6"	150
80	8"	200

* only for series 73/78

Features (3-6)	
C	Cryogenic
F	Fire safe
N	Control service
Series (7-8)	
C31	ANSI #150 std. port
C32	ANSI #300 std. port
C73	ANSI #150 full port
C74	ANSI #300 full port
C77	DIN PN 16 full port
C78	DIN PN 40 full port
Design (9)	
W	Total HermetiX Integrity package
Body material (11)	
6	CF8M
1	Bronze
7	Monel
End material (12)	
6	CF8M
1	Bronze
7	Monel

Ball material (13)	
6	S. St.
1	Bronze
7	Monel
Stem material (14)	
M	High Strength S. Steel
6	S. St. A351
Z	Inconel
Seat material (15)	
A	TFM
C	PCTFE
P	CF PTFE
Inner Seal Material (16)	
A	TFM
G	Expanded graphite
Outer Seal Material (17)	
G	Expanded graphite
A	TFM

End connections (19-22)	
Flanged	
150(2)*	ASME B16.5 #150 RF
300(2)**	ASME B16.5 #300 RF
PN16(2)***	EN1092 PN16 RF
PN40(2)****	EN1092 PN40 RF
* C31, 73 series	
** C32, C74 series	
*** C77 series	
**** C78 series	
Special Features (24-30)	
SPR	Spring loaded seat, valve 2 1/2" Full port and up
SPR	Spring loaded seat, up to 2 1/2" std. port
6.0	Short bonnet
B	Body made from rolled bar
FF	Flat face
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
Vxx	V port (xx = angle)
VBxx	Characterized control ball