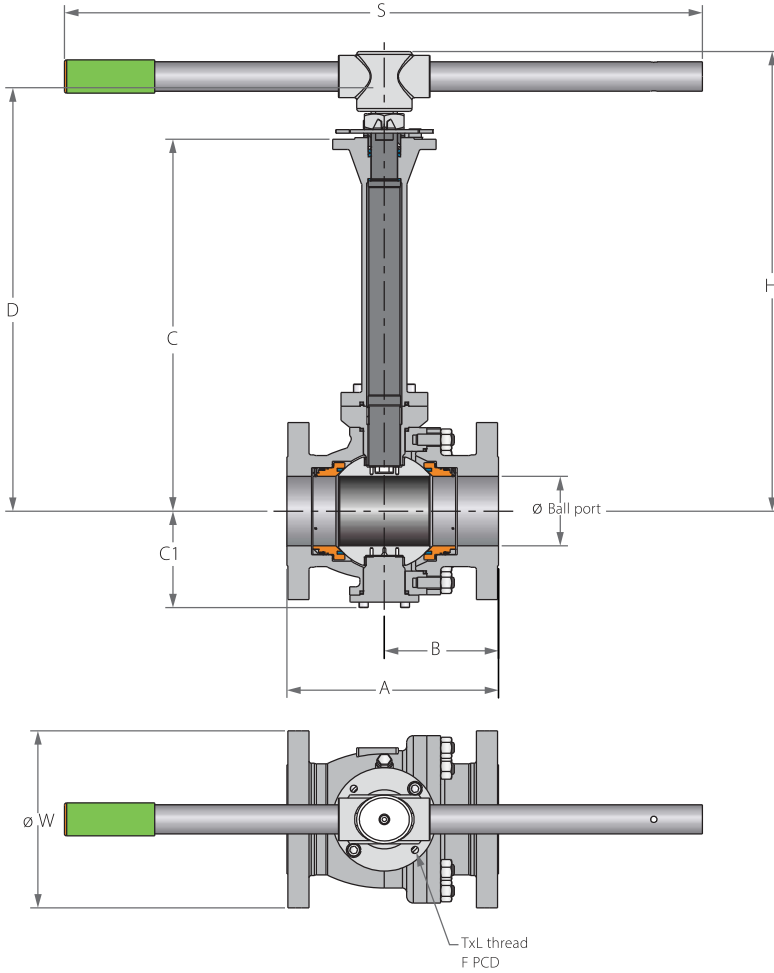
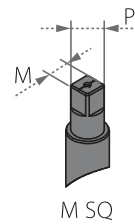


## Cryogenic Trunnion Mounted Ball 2 Piece

### Valve dimensions



### Preparation for actuation

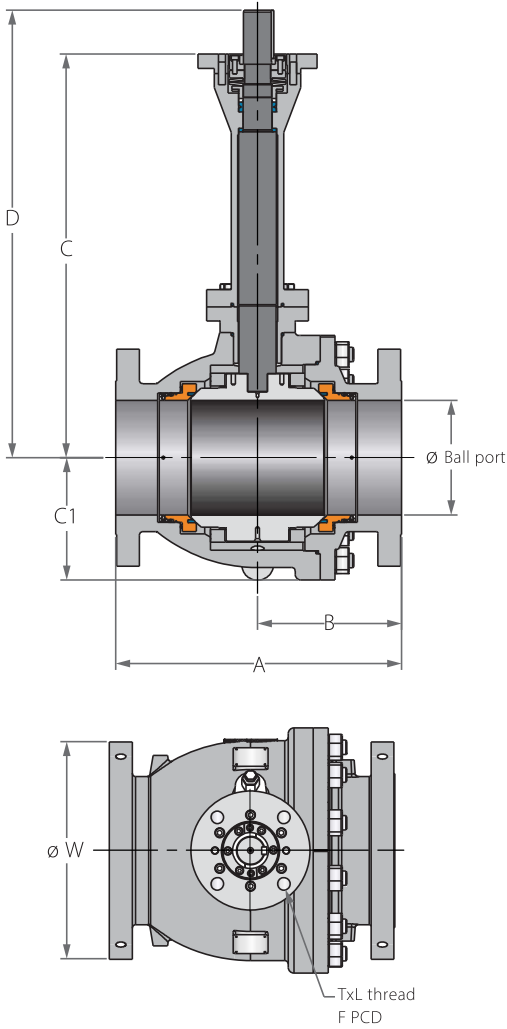


Full port	Unit	Ball port	A		B		C	C1	D	W		M SQ	P SQ	H	S	F	TxL	Weight kg/lb		Kv / Cv		
			150	300	150	300				150	300							150	300	150	300	
DN50	mm	49	178	216	89	113.5	500	94	546.5	150	165	18.9	22.70	525.8	401	(F10)	102	M10X15 (4 holes)	24	27	400	363
2"	inch	1.93	7.01	8.5	3.5	4.47	19.69	3.7	21.52	5.91	6.50	0.74	0.89	20.70	15.79	4.02			53	60	463	420
DN80	mm	74	203	283	101.5	154	550	117	619.1	190	210	28.45	35.20	638.6	610	(F12)	125	M12X15 (4 holes)	42	53	1125	952
3"	inch	2.91	7.99	11.14	4	6.06	21.65	4.61	24.37	7.48	8.27	1.12	1.39	25.14	24.02	4.92			93	117	1300	1100
DN100	mm	100	229	305	114.5	164.5	600	139	669.1	230	255	28.45	35.20	662.6	916	(F12)	125	M12X15 (4 holes)	64	76	2154	1860
4"	inch	3.94	9.02	12	4.51	6.48	23.62	5.47	26.34	9.06	10.04	1.12	1.39	26.09	36.06	4.92			141	168	2490	2150
DN150	mm	150	394	403	209.1	207.6	607	191	719.6	280	320	35.9	43.50	777.1	916	(F14)	140	M16X20 (4 holes)	165	176	4723	4628
6"	inch	5.91	15.51	15.87	8.23	8.17	23.9	7.52	28.33	11.02	12.6	1.41	1.71	30.59	36.06	5.51			364	388	5460	5350

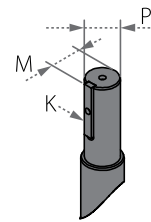


# Cryogenic Trunnion Mounted Ball 2 Piece

## Valve dimensions



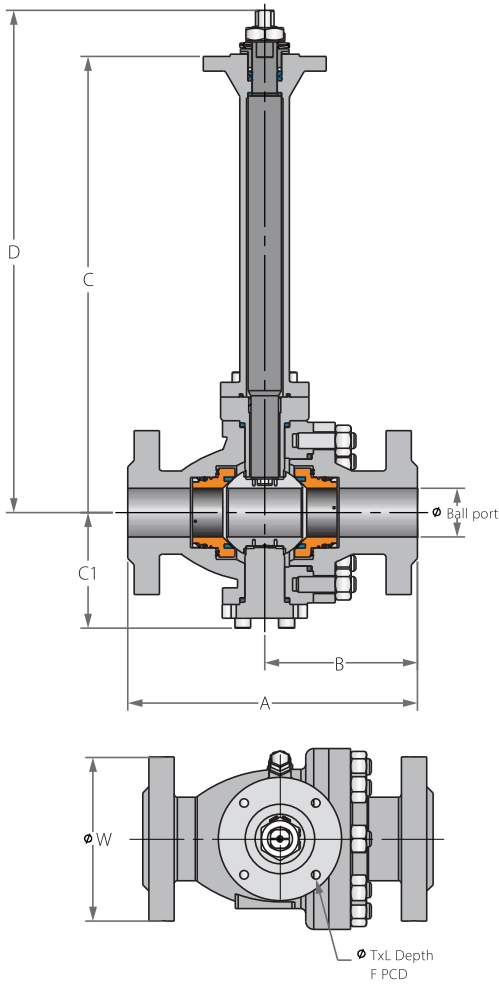
## Preparation for actuation



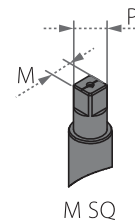
Full port	Unit	Ball port	A		B		C	C1	D	W		P	M	K	F	TxL	Weight kg/lb		Kv / Cv		
			150	300	150	300				150	300						150	300	150	300	
DN200	mm	201.0	457.0	502.0	228.5	253.0	708.0	215.0	785.0	345.0	380.0	50.0	54.0	14.0	(F16)	165.0	22x25	254	292	9273	8737
8"	inch	7.91	17.99	19.76	9.0	9.96	27.87	8.46	30.91	13.58	14.96	1.97	2.13	0.55		6.50	(4 holes)	560	644	10720	10100
DN250	mm	252.0	533.0	568.0	270.0	287.5	713.3	260.0	790.4	405.0	445.0	50.0	54.0	14.0	(F25)	254.0	18x25	404	474	15224	14792
10"	inch	9.92	20.98	22.36	10.63	11.32	28.08	10.24	31.12	15.94	17.52	1.97	2.13	0.55		10.0	(8 holes)	891	1045	17600	17100
DN300	mm	303.0	610.0	648.0	298.0	313.0	800.0	300.0	880.50	485.0	520.0	60.0	63.5	18.0	(F25)	254.0	18x25	594	671	23096	22404
12"	inch	11.93	24.02	25.51	11.73	12.32	31.5	11.81	34.67	19.09	20.47	2.36	2.5	0.71		10.0	(8 holes)	1310	1479	26700	25900

## Cryogenic Trunnion Mounted Ball 2 Piece

### Valve dimensions



### Preparation for actuation

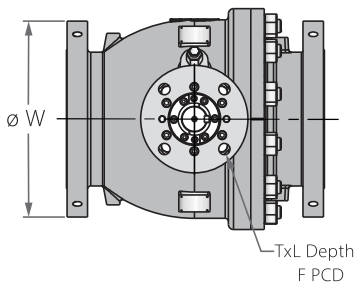
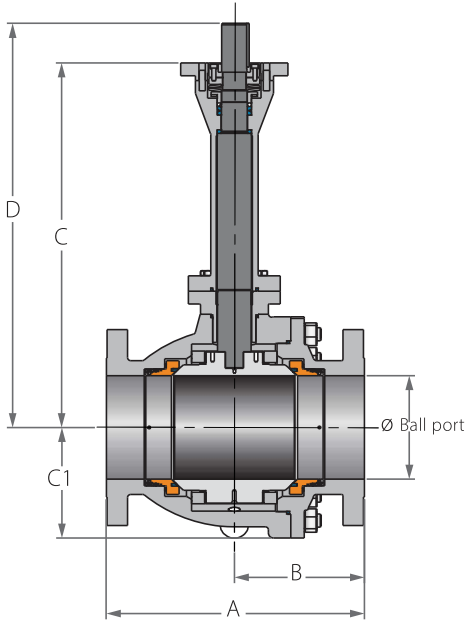


Full port	Unit	Ball port	A	B	C	C1	D	W	M SQ	P SQ	F	TxL	Weight kg/ib	Kv Cv	
DN50	mm	49	292	131	500	119	547.5	165	18.9	22.7	(F10)	102	M10X15 (4 holes)	43 95	329 380
2"	inch	1.93	11.5	5.16	19.69	4.69	21.56	6.5	0.74	0.89		4.02			
DN80	mm	74	356	161	550	160	617	210	28.45	35.2	(F12)	125	M12X15 (4 holes)	84.5 186	874 1010
3"	inch	2.91	14.02	6.34	21.65	6.3	24.29	8.27	1.12	1.39		4.92			
DN100	mm	100	432	216	600	184	712.6	275	35.9	43.5	(F14)	140	M16X20 (4 holes)	139 306	1557 1800
4"	inch	3.94	17.01	8.50	23.62	7.24	28.06	10.83	1.41	1.71		5.51			
DN150	mm	150	559	278	624.5	214.5	737.1	355	35.9	43.5	(F14)	140	M16X20 (4 holes)	275 606	3893 4500
6"	inch	5.91	22.01	10.94	24.59	8.44	29.02	13.98	1.41	1.71		5.51			

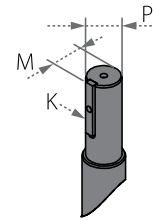


# Cryogenic Trunnion Mounted Ball 2 Piece

## Valve dimensions



## Preparation for actuation



Full port	Unit	Ball port	A	B	C	C1	D	W	P	M	K	F	TxL	Weight kg/ib	Kv Cv	
DN200	mm	201.0	660.0	330.0	696.0	263.0	774.0	420.0	60.0	63.5	14.0	(F25)	254.0	18x25	475	7742
8"	inch	7.91	25.98	12.99	27.4	10.35	30.47	16.54	2.36	2.5	0.55		10.0	(8 holes)	1047	8950
DN250	mm	252.0	787.0	400.0	739.0	310.0	817.0	510.0	60.0	63.50	14.0	(F25)	254.0	18x35	725	12543
10"	inch	9.92	30.98	15.75	29.09	12.2	32.17	20.08	2.36	2.50	0.55		10.0	(8 holes)	1598	14500
DN300	mm	303.0	838.0	419.0	800.0	344.0	915.0	560.0	72.0	76.5	20.0	(F25)	254.0	18x35	928	19809
12"	inch	11.93	32.99	16.50	31.50	13.54	36.02	22.05	2.83	3.01	0.79		10.0	(8 holes)	2046	22900

C81

C82

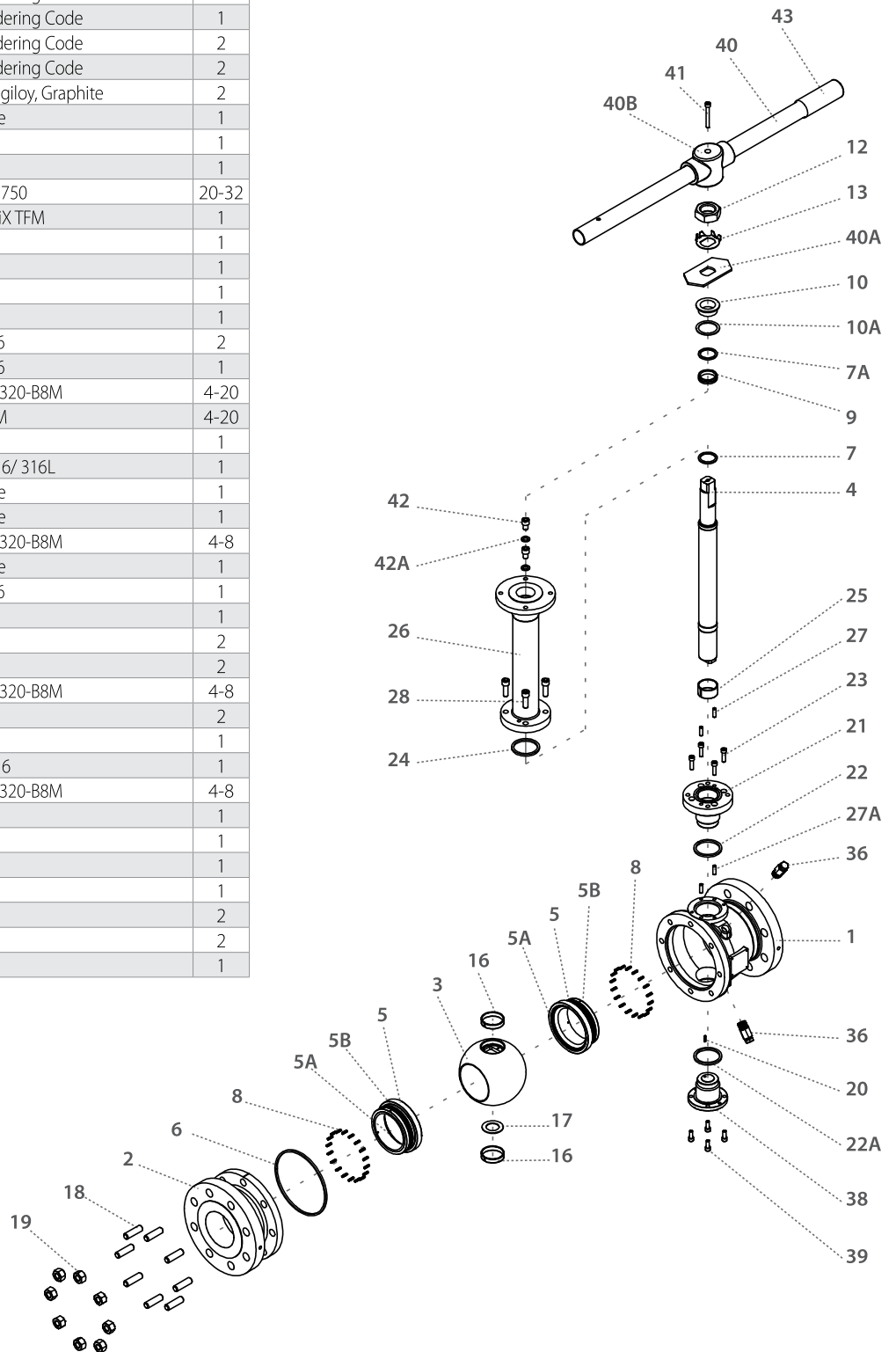
C83 2"-6"

# Cryogenic Trunnion Mounted Ball 2 Piece

## Components & materials

Item	Description	Material Spec. ASTM	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
5A*	Seat insert	Acc. Ordering Code	2
5B*	Seat seal	PTFE+Elgiloy, Graphite	2
6*	Body seal	Graphite	1
7*	Stem thrust seal	PCTFE	1
7A*	Anti-abrasion ring	PCTFE	1
8	Seat spring	Inconel 750	20-32
9 *	Stem seal	HermetiX TFM	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
16	Ball Bearing	PMT 316	2
17	Ball Thrust Washer	PMT 316	1
18	Body Stud	ASTM A320-B8M	4-20
19	Body Nut	A194 8M	4-20
20	Anti-static spring	S. Steel	1
21	Gland Plate	A479 316/ 316L	1
22*	Gland Plate Seal	Graphite	1
22A*	Outer trunnion seal	Graphite	1
23	Gland Plate Bolts	ASTM A320-B8M	4-8
24*	Bonnet seal	Graphite	1
25	Stem bearing	PMT 316	1
26	Bonnet	S. Steel	1
27	Bonnet Pins	S. Steel	2
27A	Gland Pins	S. Steel	2
28	Bonnet Bolts	ASTM A320-B8M	4-8
36	Plug drain/ vent valve	S. Steel	2
37	Tag (not shown)	S.Steel	1
38	Outer trunnion	A479 316	1
39	Outer trunnion bolts	ASTM A320-B8M	4-8
40	Pipe handle	S. Steel	1
40A	Stop plate	S. Steel	1
40B	Wrench head	S. Steel	1
41	Wrench head bolt	S. Steel	1
42	Stop bolt	S. Steel	2
42A	Spring washer	S. Steel	2
43	Sleeve	PCV	1

\* Repair kit components





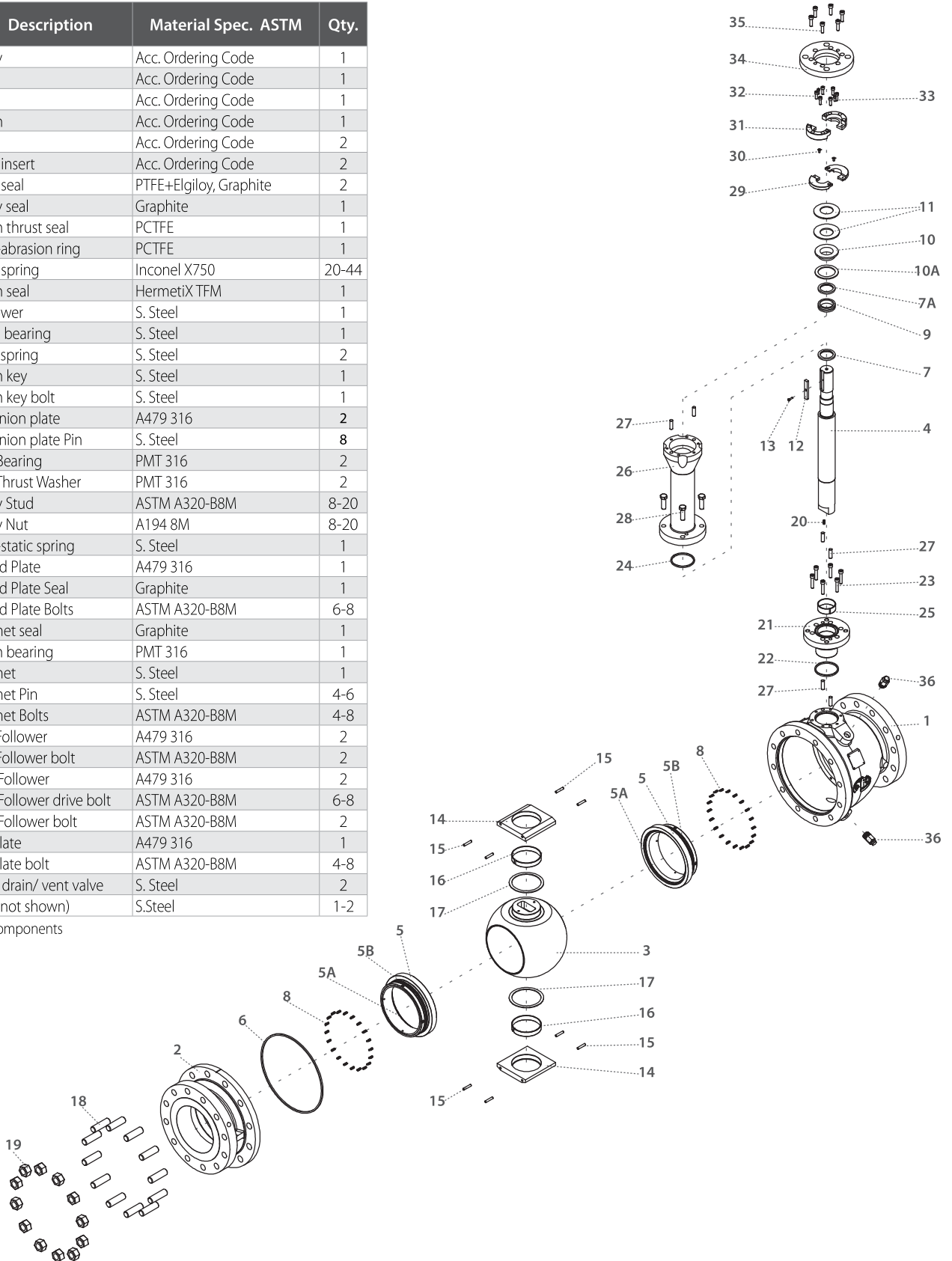
# Cryogenic Trunnion Mounted Ball 2 Piece

## Components & materials

Item	Description	Material Spec. ASTM	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
5A*	Seat insert	Acc. Ordering Code	2
5B*	Seat seal	PTFE+Elgiloy, Graphite	2
6*	Body seal	Graphite	1
7*	Stem thrust seal	PCTFE	1
7A*	Anti-abrasion ring	PCTFE	1
8	Seat spring	Inconel X750	20-44
9*	Stem seal	HermetiX TFM	1
10	Follower	S. Steel	1
10A	Slide bearing	S. Steel	1
11	Disc spring	S. Steel	2
12	Stem key	S. Steel	1
13	Stem key bolt	S. Steel	1
14	Trunnion plate	A479 316	2
15	Trunnion plate Pin	S. Steel	8
16	Ball Bearing	PMT 316	2
17	Ball Thrust Washer	PMT 316	2
18	Body Stud	ASTM A320-B8M	8-20
19	Body Nut	A194 8M	8-20
20	Anti-static spring	S. Steel	1
21 <sup>(1)</sup>	Gland Plate	A479 316	1
22 <sup>(1)*</sup>	Gland Plate Seal	Graphite	1
23 <sup>(1)</sup>	Gland Plate Bolts	ASTM A320-B8M	6-8
24*	Bonnet seal	Graphite	1
25	Stem bearing	PMT 316	1
26	Bonnet	S. Steel	1
27	Bonnet Pin	S. Steel	4-6
28	Bonnet Bolts	ASTM A320-B8M	4-8
29	Bot Follower	A479 316	2
30	Bot Follower bolt	ASTM A320-B8M	2
31	Top Follower	A479 316	2
32	Top Follower drive bolt	ASTM A320-B8M	6-8
33	Top Follower bolt	ASTM A320-B8M	2
34	Iso Plate	A479 316	1
35	Iso Plate bolt	ASTM A320-B8M	4-8
36	Plug drain/ vent valve	S. Steel	2
37	Tag (not shown)	S.Steel	1-2

\* Repair kit components

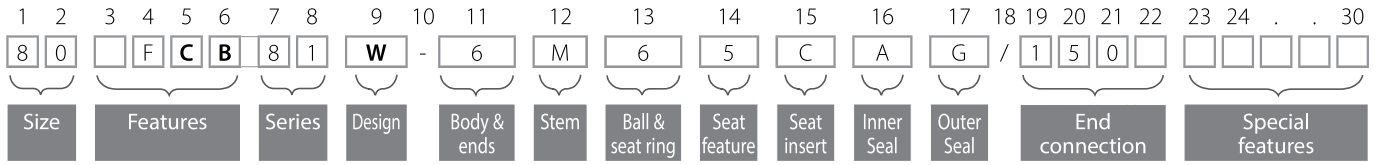
<sup>(1)</sup> At 8" size





# Cryogenic Trunnion Mounted Ball 2 Piece - 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
20	2"	50
30	3"	80
40	4"	100
60	6"	150
80	8"	200
A0	10"	250
A2	12"	300

Features (3-6)	
F	Fire safe
C	<b>Cryogenic design</b>
B	Full port

Series (7-8)	
81	ASME B16.5 #150 Flanged RF
82	<b>ASME B16.5 #300 Flanged RF</b>
83	<b>ASME B16.5 #600 Flanged RF</b>

Design (9)	
W	<b>Total HermetiX Integrity package</b>

Body & ends material (11)	
6	S. Steel

Stem material (12)	
M	High Strength S. Steel

Ball & seat ring material (13)	
6	S. Steel

Seat feature (14)	
S	Single Piston Effect (SPE) (API 6D DBB)

Seat insert (15)	
C	PCTFE

Inner Seal (16)	
A	TFM

Outer Seal (17)	
G	Graphite

End Connection (19-22)	
150	ASME B16.5 #150 RF
300	ASME B16.5 #300 RF
600	ASME B16.5 #600 RF