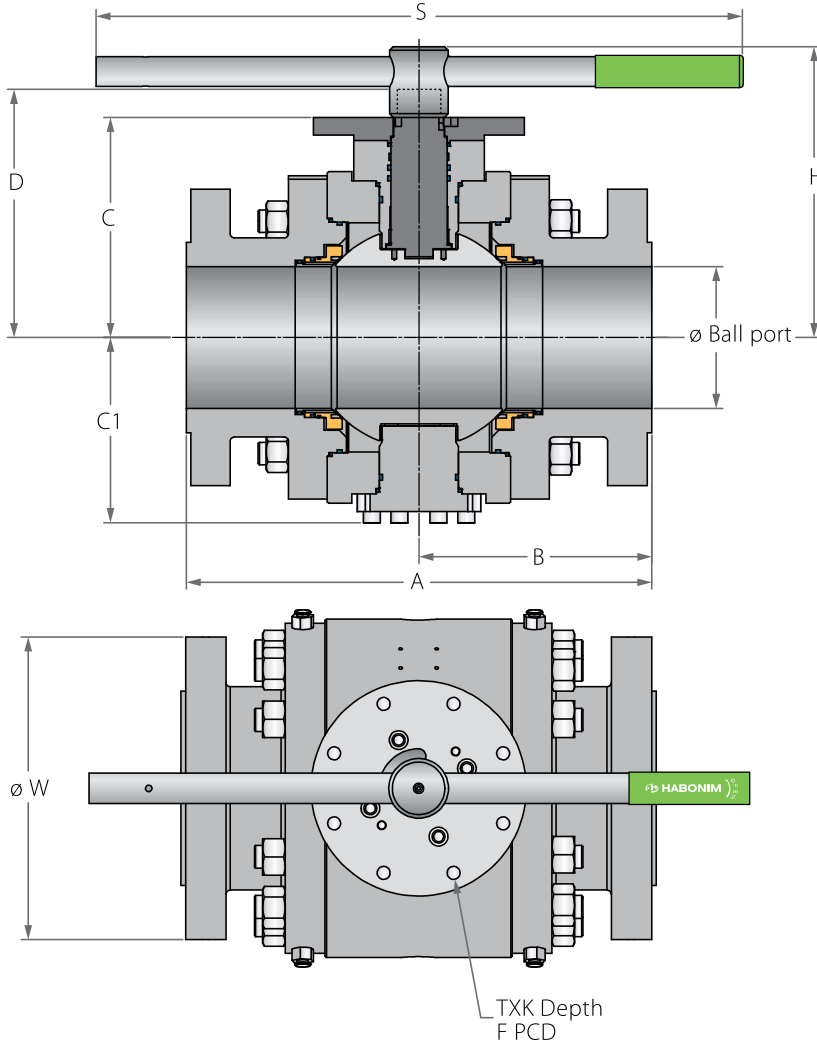


Trunnion Mounted Ball 3 Piece

Valve dimensions

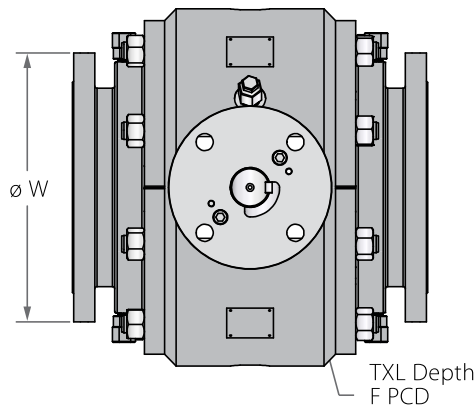
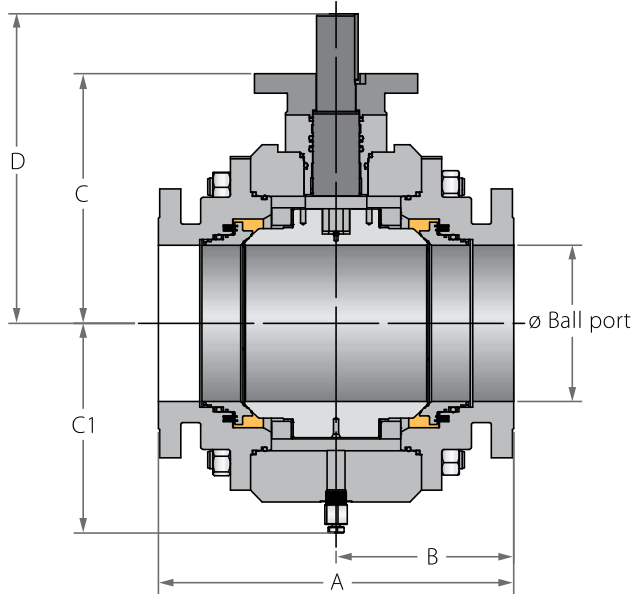


Std. port	Unit	Ball port	A		B		C	C1	D	W		Msq	Psq	H	S	F	TxL	Weight kg/lb		Kv / Cv		
			150	300	150	300				150	300							150	300	150	300	
DN50	mm	49.00	178.00	216.00	89.00	108.00	127.00	91.50	144.50	150.00	165.00	17.00	22.00	196.00	401.00	(F10)	102.00	11 X15	27	31	400	363
2"	inch	1.93	7.01	8.50	3.50	4.25	5.00	3.60	5.69	5.91	6.50	0.67	0.87	7.72	15.79	4.02	(4 holes)	60	68	463	420	
DN80	mm	74.00	203.00	283.00	101.50	128.00	148.00	117.00	172.00	190.00	210.00	22.00	32.00	223.00	610.00	(F12)	125.00	13x15	44	61	1125	952
3"	inch	2.91	7.99	11.14	4.00	5.04	5.83	4.61	6.77	7.48	8.27	0.87	1.26	8.78	24.02	4.92	(4 holes)	97	134	1300	1100	
DN100	mm	100.00	229.00	305.00	114.50	140.50	171.00	139.00	198.50	230.00	255.00	27.00	35.00	247.50	610.00	(F14)	140.00	18x15	66	100	2154	1860
4"	inch	3.94	9.02	12.00	4.51	5.53	6.73	5.47	7.81	9.06	10.04	1.06	1.38	9.74	24.02	5.51	(4 holes)	146	220	2490	2150	
DN150	mm	150.00	394.00	457.00	185.00	230.40	254.00	191.00	290.50	280.00	320.00	36.00	46.20	356.50	916.00	(F16)	165.00	22x25	180	216	4723	4628
6"	inch	5.91	15.51	17.99	7.28	9.07	10.00	7.52	11.44	11.02	12.60	1.42	1.82	14.04	36.06	6.50	(4 holes)	397	476	5460	5350	

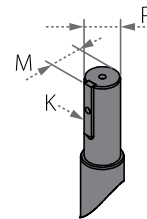


Trunnion Mounted Ball 3 Piece

Valve dimensions



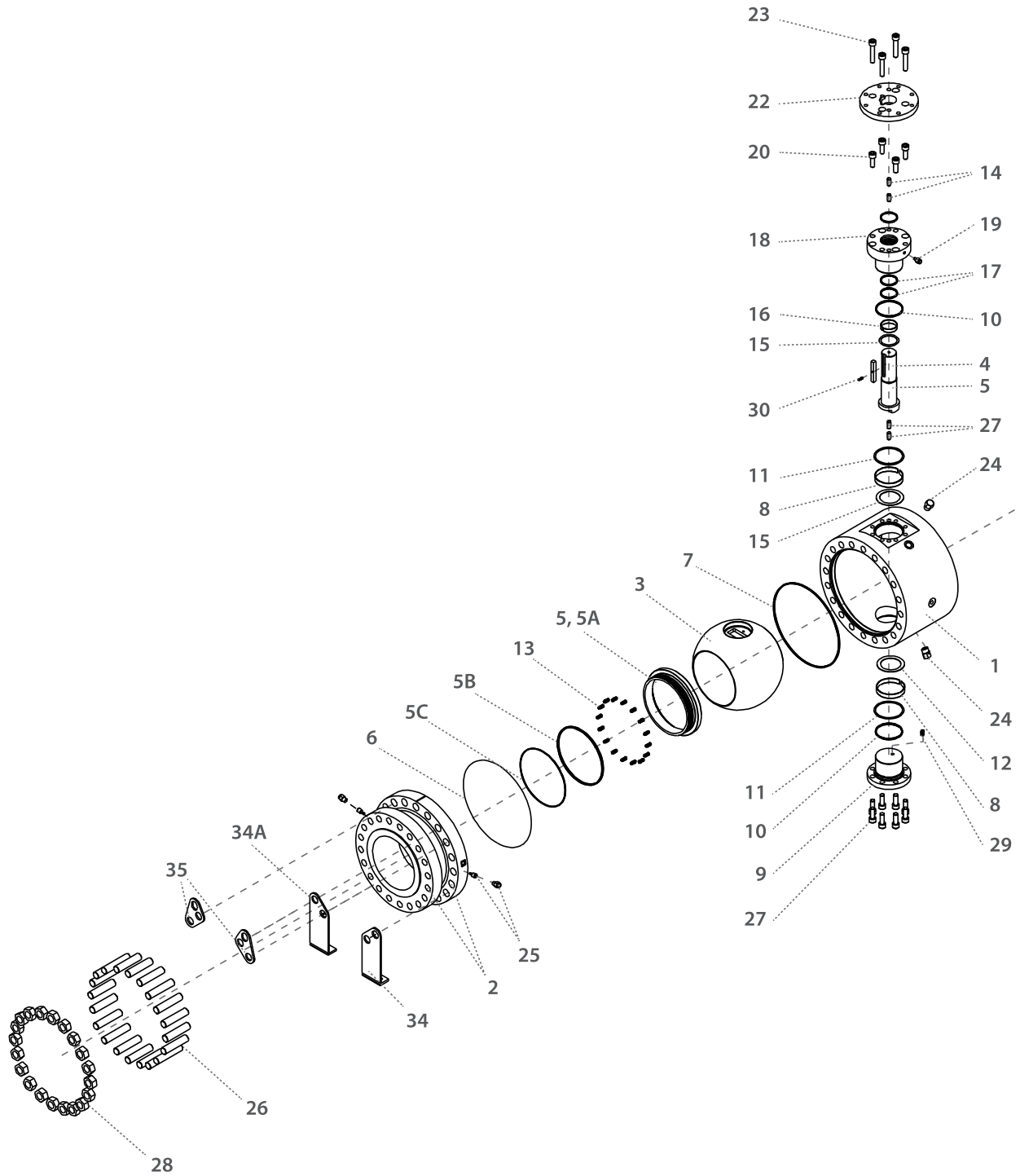
Preparation for actuation



Std. port	Unit	Ball port	A		B		C		C1		D		W		P		M		K		F	TxL	Weight kg/ib				Kv / Cv	
			150	300	150	300	150	300	150	300	150	300	150	300	150	300	150	300	150	300			150	300	150	300		
DN200 8"	mm	201.00	457.00	502.00	228.50	251.00	325.00	305.00	247.00	232.00	405.50	379.50	345.00	380.00	50.00	50.00	54.00	61.00	14.00	14.00	(F16)	165.00	22x25 (4 holes)	346	378	9273	8737	
	inch	7.91	17.99	19.76	9.00	9.88	12.80	12.01	9.72	9.13	15.96	14.94	13.58	14.96	1.97	1.97	2.13	2.40	0.55	0.55		6.50		763	833	10720	10100	
DN250 10"	mm	252.00	533.00	568.00	270.00	287.50	353.00	359.00	297.00	299.00	430.00	454.00	405.00	445.00	50.00	60.00	54.00	65.50	14.00	18.00	(F25)	254.00	18x25 (8 holes)	473	594	15224	14792	
	inch	9.92	20.98	22.36	10.63	11.32	13.90	14.13	11.69	11.77	16.93	17.87	15.94	17.52	1.97	2.36	2.13	2.58	0.55	0.71		10.00		1043	1310	17600	17100	
DN300 12"	mm	303.00	610.00	648.00	298.00	313.00	388.00	368.00	324.00	305.00	468.50	464.00	485.00	520.00	60.00	60.00	63.50	65.50	18.00	18.00	(F25)	254.00	18x25 (8 holes)	723	833	23096	22404	
	inch	11.93	24.02	25.51	11.73	12.32	15.28	14.49	12.76	12.01	18.44	18.27	19.09	20.47	2.36	2.36	2.50	2.58	0.71	0.71		10.00		1594	1836	26700	25900	
DN350 14"	mm	334.00	686.00	762.00	343.00	381.00	425.00	400.00	372.00	330.00	555.00	520.00	535.00	585.00	72.00	72.00	78.00	78.00	20.00	20.00	(F30)	298.00	22x30 (8 holes)	1072	1237	27940	26729	
	inch	13.15	27.01	30.00	13.50	15.00	16.73	15.75	14.65	12.99	21.85	20.47	21.06	23.03	2.83	2.83	3.07	3.07	0.79	0.79		11.73		2363	2727	32300	30900	
DN400 16"	mm	385.00	762.00	838.00	381.00	419.00	460.50	435.00	415.50	363.00	590.50	555.00	595.00	650.00	72.00	72.00	78.00	78.00	20.00	20.00	(F30)	298.00	22x30 (8 holes)	1703	1949	38536	36763	
	inch	15.16	30.00	32.99	15.00	16.50	18.13	17.13	16.36	14.29	23.25	21.85	23.43	25.59	2.83	2.83	3.07	3.07	0.79	0.79		11.73		3754	4297	44550	42500	

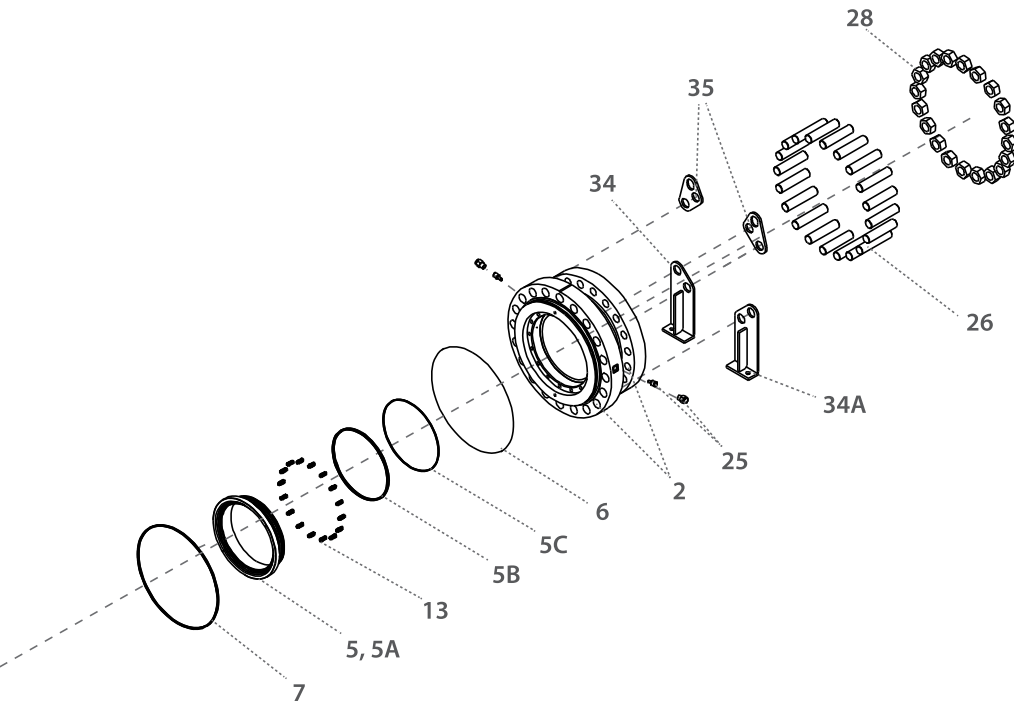
Trunnion Mounted Ball 3 Piece

Components & materials





Trunnion Mounted Ball 3 Piece



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2	End	Acc. Ordering Code	2
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	HNBR, VITON	2-4
5C	Seat fire safe seal	Graphite	2
6*	Body fire safe seal	Graphite	1
7*	Body seal	HNBR, VITON	1
8	Ball bearing	316L+PTFE	2
9	External trunnion	A350 LF2+ENP, A479 316L	1
10*	Gland plate & external trunnion fire safe seal	Graphite	2
11*	Gland plate & external trunnion seal	HNBR, VITON	2
12	Lower thrust washer	316L+PTFE	1
13	Seat spring	Inconel X750	10-26

Item	Description	Material specification	Qty.
14	Gland pin	C. Steel, S. Steel	4
15	Stem thrust seal	316L+PTFE	1
16	Gland plate bearing	316L+PTFE	1
17	Stem Seal	HNBR, VITON	2
18	Gland plate	A350 LF2+ENP, A479 316L, A105 +ENP	1
19	Stem grease fitting	S. St	1
20	Lower gland bolts	A320 L7, A193 B8M	2-6
21*	Stem gasket	Graphite	1
22	Iso plate	A350 LF2, A479 316L, A105	1
23	Upper gland bolts	A320 L7, A193 B8M	2-6
24	Plug drain valve	S. Steel	2
25**	Seat grease fitting + Check valve	S. Steel	4
26	Body stud	A320 L7, A193 B8M	4-20
27	External trunnion bolts	A320 L7, A193 B8M	4-12
28	Body nut	A194 GR-7, A193 GR-8M	4-20
29	Antistatic spring	Inconel X750	1
30	stem key	ST.37, H1150D 17-4PH, A182 F6A	1

* Repair kit components

** Available from 6" size only



Trunnion Mounted 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	.	.	30
6	0			F	B	9	1		-	4	6	4	D	V	V	G	/	1	5	0		-				
Size		Features				Series		Design		Body & ends material		Stem material	Ball material	Seat feature	Seat insert material	Inner Seal material	Outer Seal material	End connection				Special features				

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
A4 **	14"	350
A6 **	16"	400

* Full port only

** not available at class 900

Features (3-6)	
F	Fire safe
B	Full port
Series - 3 Piece (7-8)	
91	ASME B16.5 #150 (PN20)
92	ASME B16.5 #300 (PN50)
93	ASME B16.5 #600 (PN100)
94	ASME B16.5 #900 (PN150)
Design (9)	
Blank	(Stands for future designs)
Body & ends material (11)	
4	C. Steel A105
6	S. Steel 316
F	C. Steel A350 LF2
W	Haselloy C-22
D	Duplex
K	Super Duplex
S	254SMO
Stem material (12)	
6 *	S. Steel A479 316\316L
Q **	S. Steel A182 F6A
M ***	High Strength S. Steel
Z	Inconel 718 B637 N07718
W	Haselloy C-22
D	Duplex
K	Super Duplex
S	254SMO

* for 91,92 not for 93, 94

** for 93, not for 94

*** for 94

Ball material (13)	
6	S. Steel A182 F316
4	C. Steel A105+ENP
F	C. Steel A350 LF2+ENP

Seat feature (14)	
D	Double Piston Effect (DPE) (API 6D DIB-1)
S	Single Piston Effect (SPE) (API 6D DBB)
C	DPE & SPE combination (API 6D DIB-2)

Seat insert material (15)	
V	Devlon
P	CF PTFE
K	CF PEEK

Inner Seal material (16)	
V	Viton
H	HNBR

Outer Seal material (17)	
G	Graphite

End Connection (19-22)	
Welded ends	
150	ASME B16.5 #150
300	ASME B16.5 #300
600	ASME B16.5 #600
900	ASME B16.5 #900
PN16	DIN EN 1092-1 PN16
PN40	DIN EN 1092-1 PN40
PN63	DIN EN 1092-1 PN63
PN100	DIN EN 1092-1 PN100
PN160	DIN EN 1092-1 PN160
Flanged RTJ	
600RTJ	ASME B16.5 #600 RTJ
900RTJ	ASME B16.5 #900 RTJ
Welded	
XBW	Extended butt weld sch 40
XBW80	Extended butt weld sch 80

Special Features (24-30)	
L *	seat greasing point
D	Drain & Vent
Blank	Greasing point, Drain & vent is capped
PT **	Basic paint system
P1	Offshore, Temp Ambient up to 93°C (200°F)
P2	Offshore, up to 537°C (1000°F)

* for 6" and up

** colors RAL 1018 or 7036 (other colors upon request)

In some applications the available options above are limited to specific sizes please consult with Habonim for details