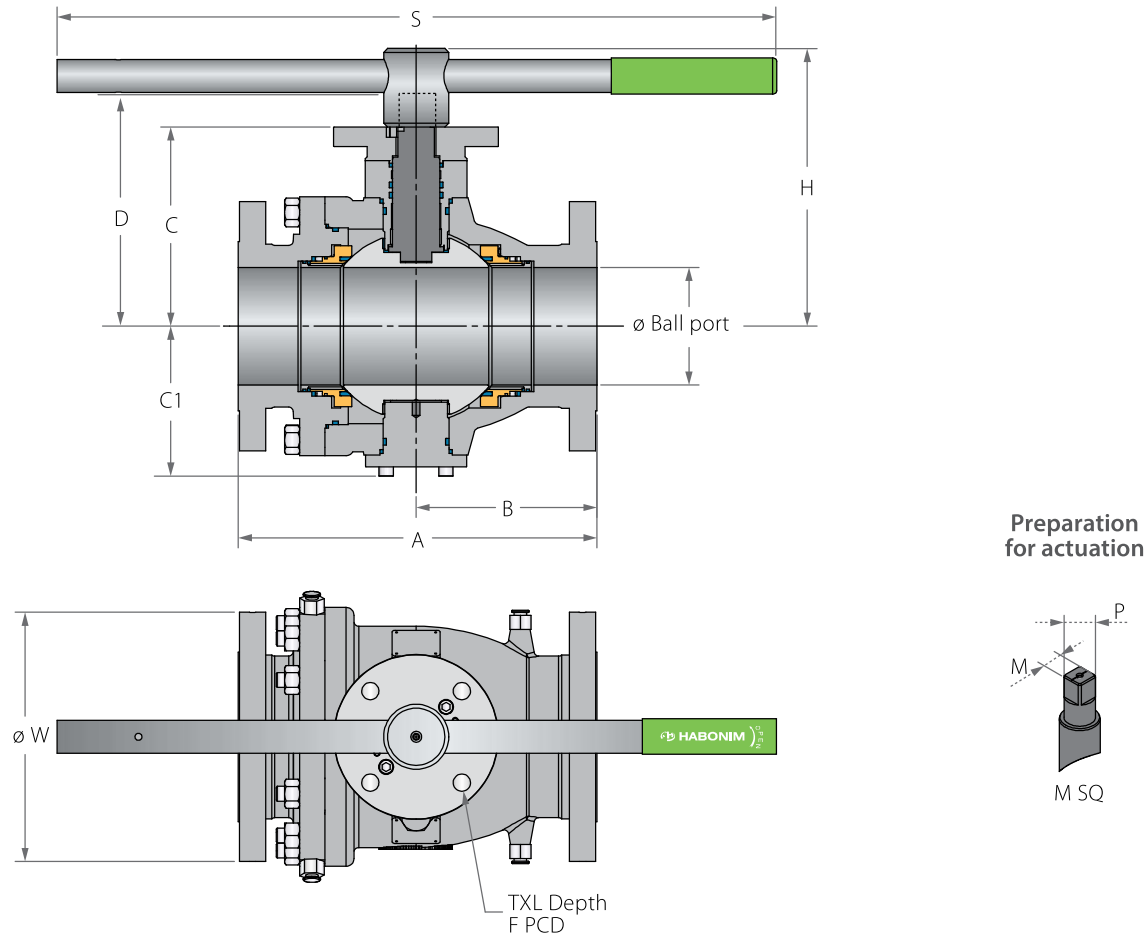


Trunnion Mounted Ball 2 Piece

Valve dimensions

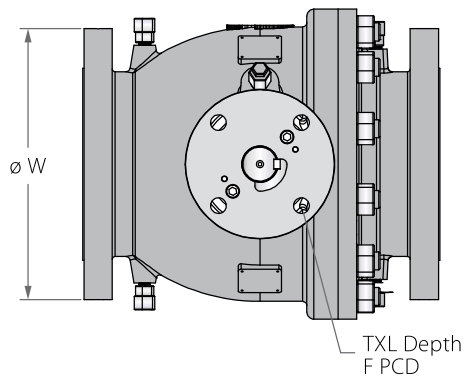
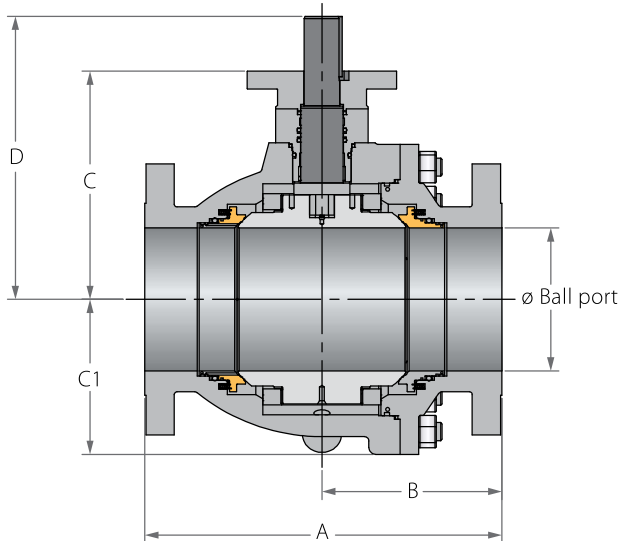


Std. port	Unit	Ball port	A		B		C	C1	D	W		M SQ	P SQ	H	S	F	TxL	Weight kg/lb		Kv / Cv		
			150	300	150	300				150	300							150	300	150	300	
DN50	mm	49.00	178.00	216.00	89.00	108.00	127.00	91.50	144.50	150.00	165.00	17.00	22.00	196.00	401.00	(F10)	102.00	11x15	19	23	400	363
2"	inch	1.93	7.01	8.50	3.50	4.25	5.00	3.60	5.69	5.91	6.50	0.67	0.87	7.72	15.79		4.02	(4 holes)	42	51	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	33	44	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)	73	97	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	49	69	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)	108	152	2490	2150
DN150	mm	150.00	394.00	403.00	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	133	166	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)	293	366	5460	5350

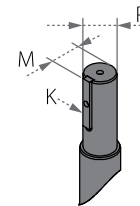


Trunnion Mounted Ball 2 Piece

Valve dimensions



Preparation for actuation



Std. 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	201.00	457.00	502.00	228.50	251.00	325.00	247.00	405.50	345.00	380.00	50.00	54.00	14.00	(F16)	165.00	222	262	9273	8737
8"	inch	7.91	17.99	19.76	9.00	9.88	12.80	9.72	15.96	13.58	14.96	1.97	2.13	0.55		6.50	489	578	10720	10100
DN250	mm	252.00	533.00	568.00	270.00	287.50	353.00	297.00	430.00	405.00	445.00	50.00	54.00	14.00	(F25)	254.00	358	424	15224	14792
10"	inch	9.92	20.98	22.36	10.63	11.32	13.90	11.69	16.93	15.94	17.52	1.97	2.13	0.55		10.00	789	935	17600	17100
DN300	mm	303.00	610.00	648.00	298.00	313.00	388.00	324.00	468.50	485.00	520.00	60.00	63.50	18.00	(F25)	254.00	527	613	23096	22404
12"	inch	11.93	24.02	25.51	11.73	12.32	15.28	12.76	18.44	19.09	20.47	2.36	2.50	0.71		10.00	1162	1351	26700	25900
DN350	mm	334.00	686.00	762.00	343.00	381.00	425.00	372.00	555.00	535.00	585.00	72.00	78.00	20.00	(F30)	298.00	794	896	27940	26729
14"	inch	13.15	27.01	30.00	13.50	15.00	16.73	14.65	21.85	21.06	23.03	2.83	3.07	0.79		11.73	1750	1975	32300	30900
DN400	mm	385.00	762.00	838.00	381.00	419.00	460.50	415.50	590.50	595.00	650.00	72.00	78.00	20.00	(F30)	298.00	1215	1344	38536	36763
16"	inch	15.16	30.00	32.99	15.00	16.50	18.13	16.36	23.25	23.43	25.59	2.83	3.07	0.79		11.73	2679	2963	44550	42500

Trunnion Mounted Ball 2 Piece

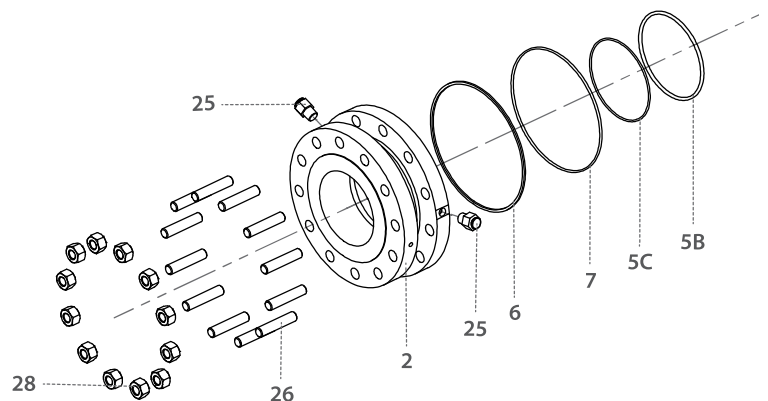
Components & materials

Item	Description	Material specification	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	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, A182 F6A	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
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, A182 F6A	1
19	Stem Grease Fitting	S. Steel	1
20	Lower Gland Bolts	A320 L7, A193 B8M	2-6
21*	Stem Gasket	Graphite	1
22	Iso Plate	A350 LF2, A479 316L, A182 F6A	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

Item	Description	Material specification	Qty.
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	Anti-Static Spring	S. Steel	1
30	Wrench Head	S. Steel	1
31	Wrench Head Bolt	A193 B8M, EN3506-1 A4-80	1
32	Pipe Handle	C.St Zink plate, S.St	1
33	Sleeve	PVC	1

* Repair kit components

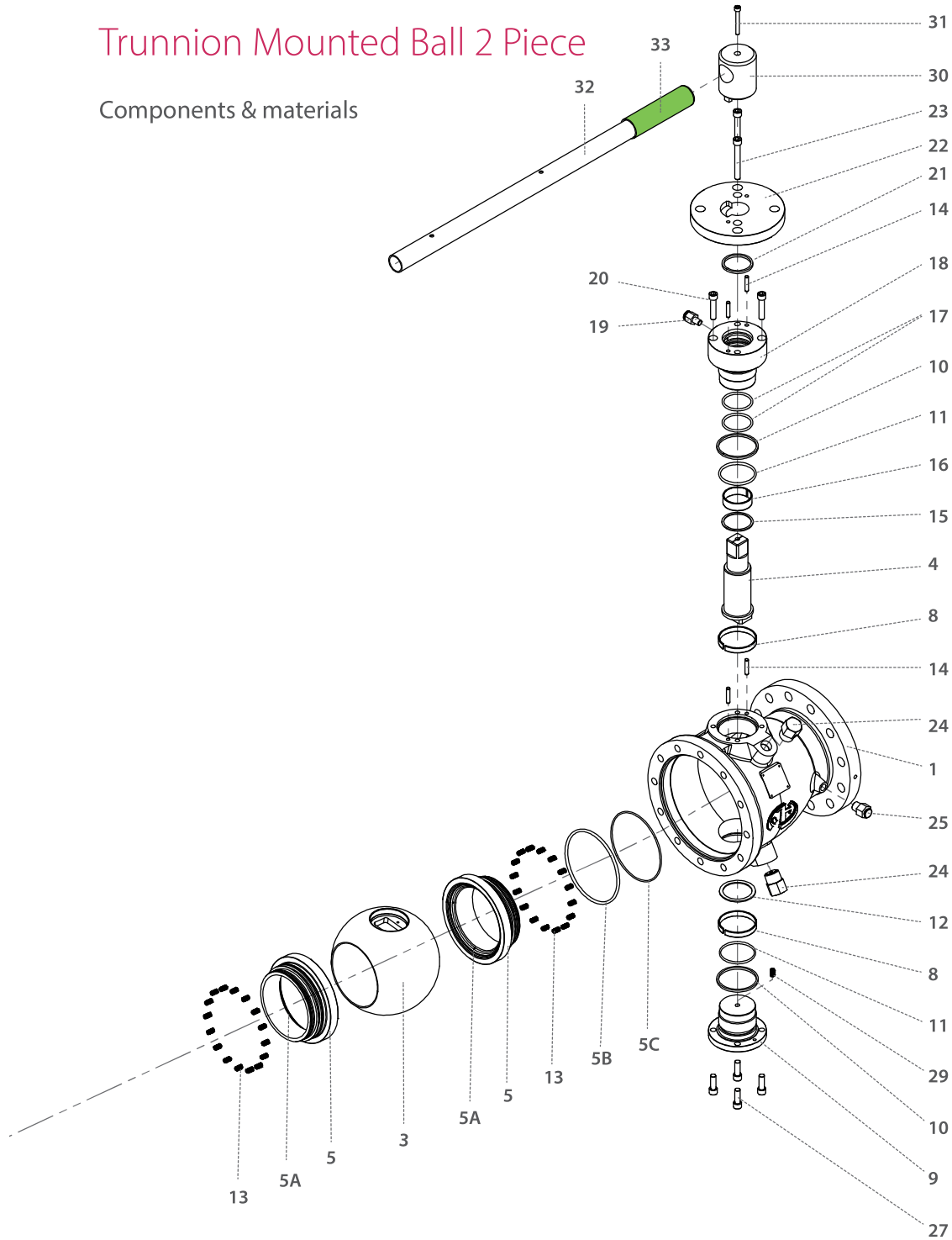
** Available from 6" size only





Trunnion Mounted Ball 2 Piece

Components & materials



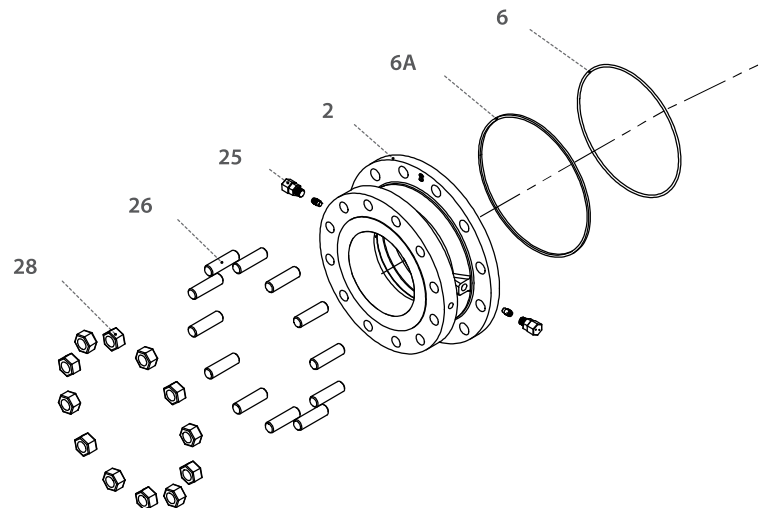
Trunnion Mounted Ball 2 Piece

Components & materials

Item	Description	Material specification	Qty.
1	Body	Acc. Ordering code	1
2	Ends	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	HNBR, VITON	2-4
5C*	Seat Fire Safe Seal	Graphite	2
6*	Body Inner Seal	HNBR, VITON	1
6A*	Body Outer Seal	Graphite	1
8*	Ball Bearing	S.steel 316 + PTFE	2
9	Trunnion Plate	S.steel / C.steel	2
10*	Gland Plate Fire Safe Seal	Graphite	1
11*	Gland Plate Seal	HNBR, VITON	1
12*	Ball Thrust Washer	S.steel 316 + PTFE	2
13	Seat Spring	Inconel X750	10-24
14	Gland Pins	S.steel / C.steel	12
15*	Stem Thrust Washer	S.steel 316 + PTFE	1
16*	Stem Bearing	S.steel 316 + PTFE	1
17*	Stem Seal	HNBR, VITON	2
18	Gland Plate	S.steel / C.steel	1
19	Stem Grease Fitting	S.steel	1
20	Lower Gland Bolts	A193-B8M / A320 L7	2-6

Item	Description	Material specification	Qty.
21*	Stem Fire Safe Seal	Graphite	1
22	ISO Plate	S.steel / C.steel	1
23	Upper Gland Bolts	A193-B8M / A320 L7	2-6
24	Plug Valve	S.steel	2
25	Seat Grease Fitting + Check Valve"	S.steel	4
26	Body Studs	A193-B8M / A320 L7	4-20
28	Body Nuts	A194-8M / A194 L7	4-20
29	Antistatic Spring	Inconel X750	1
30	Stem Key	S.steel / C.steel	1
31	Stem Key Bolt	S.steel / C.steel	1

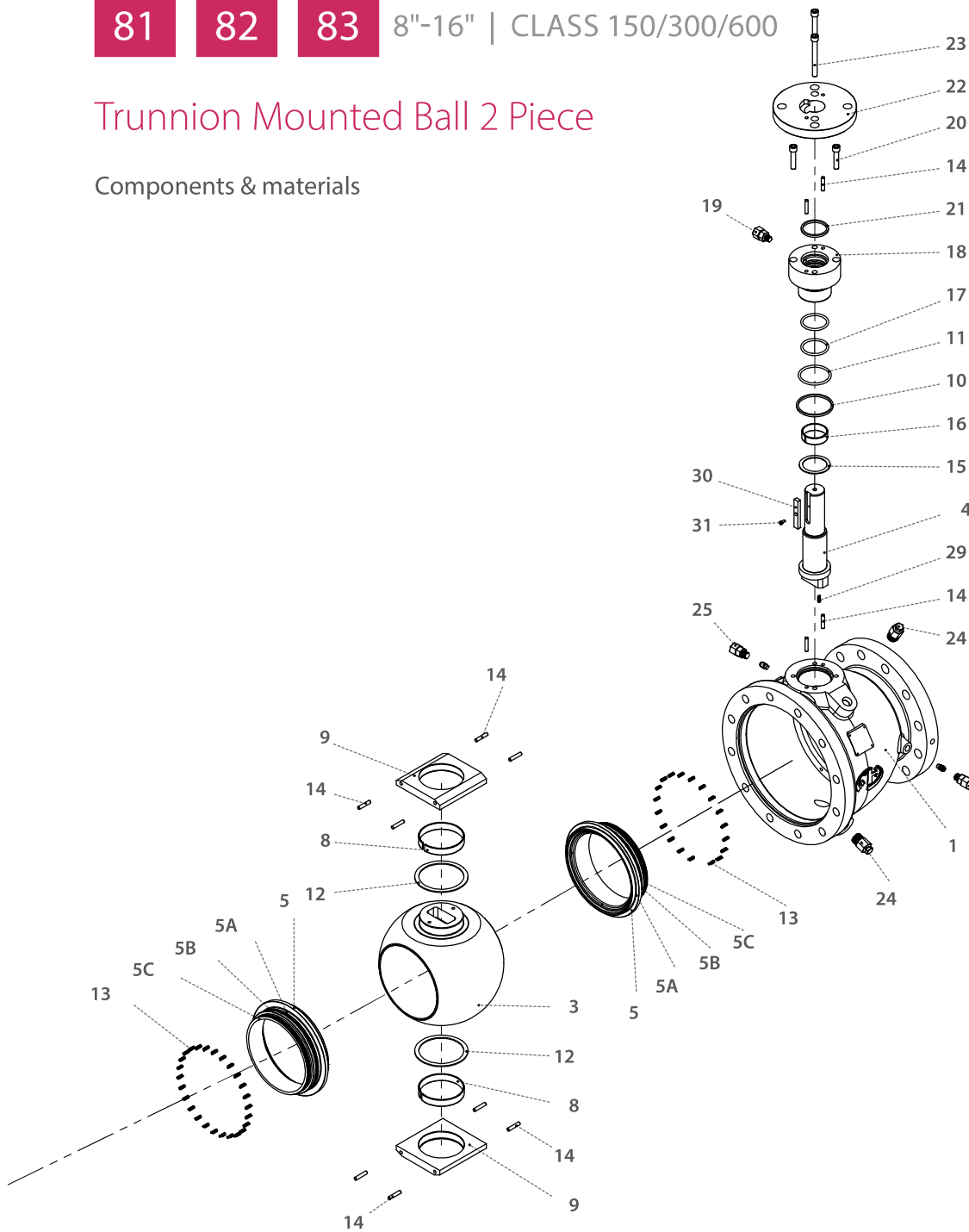
* Repair kit components





Trunnion Mounted Ball 2 Piece

Components & materials





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**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
6	0			F	B	8	1		-	4	6	6	D	V	V	G	/	1	5	0									
Size		Features				Series	Design			Body & ends material	Stem material	Ball material	Seat feature	Seat insert	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

Features (3-6)	
F	Fire safe
B	Full port
H*	Hydrogen Service

* for material selection - see Hydrogen Service chapter

Series - 2 Piece Cast (7-8)	
81	ASME B16.5 #150 Flanged RF
82	ASME B16.5 #300 Flanged RF
83	ASME B16.5 #600 Flanged RF

Design (9)	
Blank	(Stands For future designs)

Body & ends material (11)	
4	C. Steel A216 WCB
6	S. Steel A351 CF8M

Stem material (12)	
6 *	S. Steel A479 316\316L
Q **	S. Steel A182 F6A
M	High Strength S. Steel
Z	Inconel 718
D	Duplex
K	Super Duplex

* for 81, 82 not for 83

** for 83

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

* S. Steel up to 4"

** S. Steel 6" and up

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

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

Inner Seal (16)	
V	Viton
H	HNBR

Outer Seal (17)	
G	Graphite

End Connection (19-22)		
	Flanged	Series
150	ASME B16.5 #150	81
300	ASME B16.5 #300	82
600	ASME B16.5 #600	83

Special Features (23-30)	
L *	Seat greasing point
D	Drain & Vent
Blank	Greasing point, Drain & vent is capped
PT **	Basic paint system
PT1	Offshore, Temp Ambient up to 93°C (200°F)
PT2	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