



PT. Mossa Karya Utama

TRUNNION MOUNTED BALL VALVE



YOUR SUCCESS IS OUR COMMITMENT

Trunnion Mounted Ball Valve

Applicable Standards

- * Basic design as per API 6D / API6A / ASME B 16.34 / ISO 17292
- * Face To Face as per ANSI B16.10 / API 6D / MFG'S STD / DIN
- * End Flange as per ASME B16.5 / B16.25 / B16.11 / ASME B.1.20.1.
- * Actuator mounting pad on the valve as per ISO 5211
- * Wall thickness as per ASME B16.34
- * Pressure Tests as per API 598 / API 6D
- * Fire -Safe design as per API 607 / 6FA
- * Valves shall be marked as per MSS-SP-25

Configuration Range

- Side entry type (2PC design / 3PCS design)
- Top entry type
- Fully welded type

Size Range

- 150 LB : NPS 2" ~ 48" Full Port & Reduce Port
- 300 LB : NPS 2" ~ 48" Full Port & Reduce Port
- 600 LB : NPS 2" ~ 48" Full Port & Reduce Port
- 900/1500 LB : NPS 2" ~ 24" Full Port & Reduce Port
- 2500 LB : NPS 2" ~ 12" Full Port & Reduce Port
- Long Pattern or Short Pattern (On request)

Actuator:

- * Manual(Lever&Gear)
- * Electric/Hydraulic/Pneumatic

Main Materials Range

Body :

ASTM A216-WCB / ASTM A352-LCB, LCC / ASTM A351-CF8M,CF8,CF3M,CF3 CN7M / A890 4A
 ASTM A105N /A350 LF2 , LF3, LF6 / A182-F316(L), F304(L), A182-F51,F53,F55 / 17-4PH

Trim (Ball / Seating /Stem) :

ASTM A105N+ENP(1Mil,2Mil,3Mil)/A350LF2,LF3, LF6 +ENP(1Mil,2 Mil,3Mil) / A182-F316(L),F304(L),F51,F53,F55 / 17-4PH

Seat:

PTFE / RPTFE(Carbon Filled) /RPTFE(Glass Filled) /NYLON/ DEVLON
 /PCTFE / PEEK/ FKM / HNBR /EPDM (Shore Hardness : SH.93~98)

Treatment For Metal-seated type (Optional Hard Coating)
 Tungsten carbide / HCr Plating/ Stellite Weld Overlay/ Nickel Alloy Overlay / Chrome Carbide (Applications : High Temperature service (150°C~550°C)/ Heavy Oil / Slurry / Solid granule)

O'ring Seal

FKM (Viton / Viton GLT) / NBR / HNBR /EPDM ,AED Type
 (Viton , Viton GLT, HNBR) , Kalrez ® series

NACE Compliance : NACE MR 0175 / NACE MR 0103
 (Note : Materials not listed above can be offered on request.)



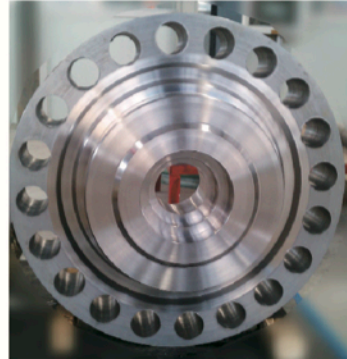
Metal-seated

Special options (On request)

Special Internal Coating / Painting / Welding overlay Welding Overlay



Inconel 625 Alloy etc.
Welding Overlay (Min. 3mm)

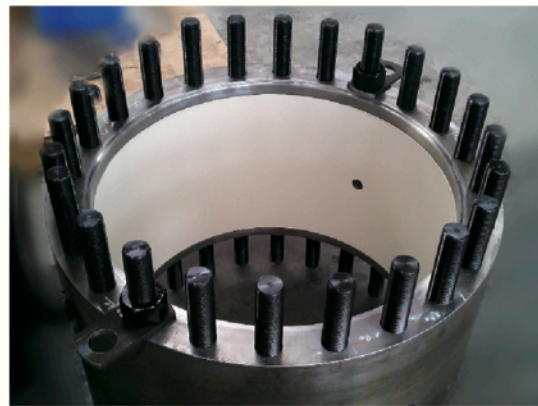


After Finish Machining

Internal Painting

Phenolic epoxy coating (Sea Waters Service)

Internal surface preparation : Abrasive blasting to minimum Sa 2½ according to ISO 8501-1:1988

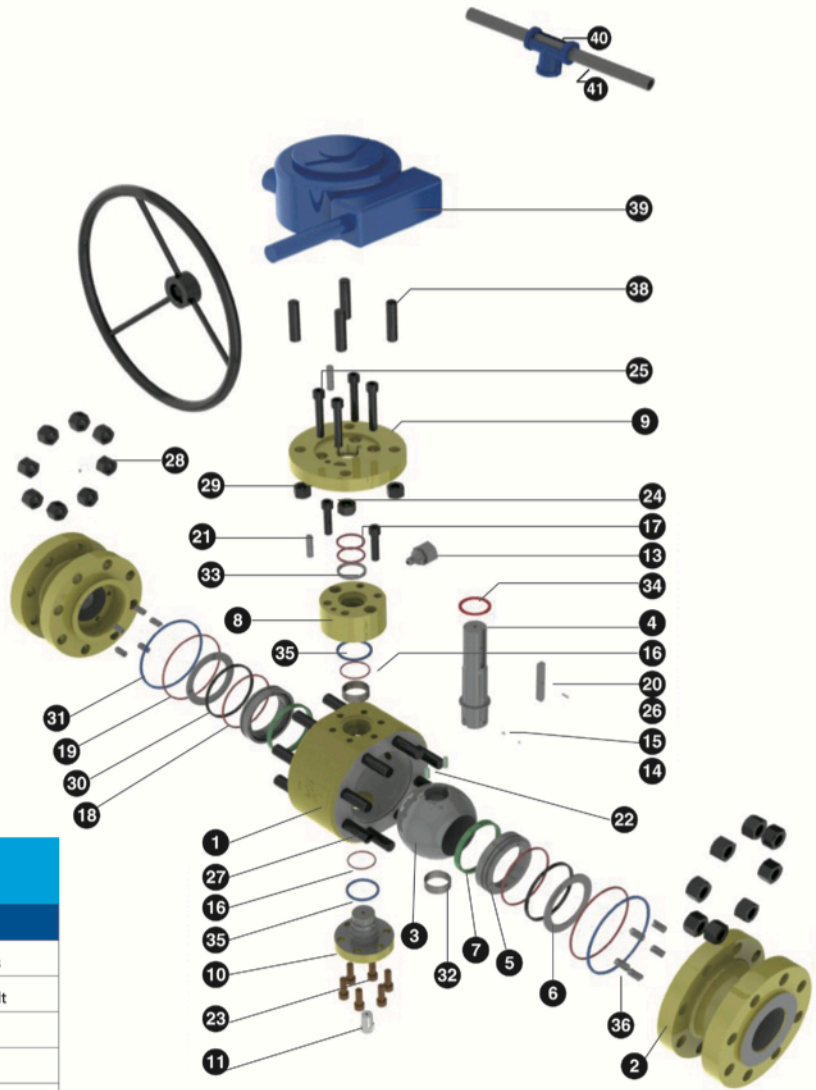


Stem/Bonnet Extension / Extended Operation (For Cryogenic Service & Underground Installation)



STANDARD FEATURES

Forged Body Trunnions



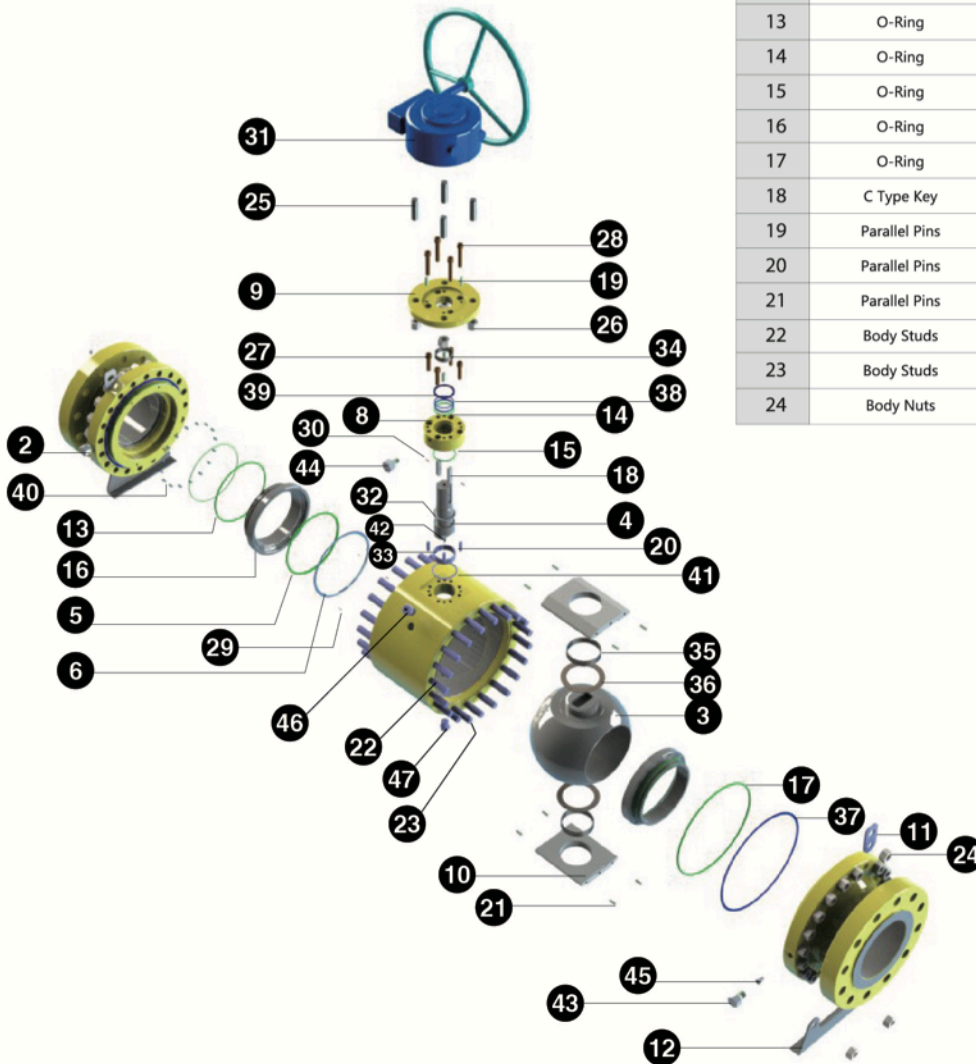
Post Trunnion Type			
ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Body	22	Parallel Pins
2	Tailpiece	23	Trunnion Bolt
3	Ball	24	Gland Bolt
4	Stem	25	Gland Bolt
5	Seat	26	Spring Pin
6	Seat Graphite Pusher	27	Body Studs
7	Seat Insert	28	Body Nuts
8	Gland	29	Gearbox Mount Nuts
9	Gland Plate	30	Seat Fire Safe Seal
10	Post Trunnion	31	Gasket
11	Vent Valve	32	DU Bearing
12	Drain Plug	33	Stem Fire Safe Seal
13	Sealant Injection Fitting	34	Thrust Washer
14	Anti-static Ball	35	Gasket
15	Anti-Static Spring	36	Seat Springs
16	O-Ring	37	Name plate
17	O-Ring	38	Gear Studs
18	O-Ring	39	Gear Box
19	O-Ring	40	Handle guide
20	Key	41	Handle
21	Parallel Pins		

STANDARD FEATURES

Forged Body Trunnions

Plate Trunnion Type

ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Body	25	Gearbox Mount Studs
2	Tailpiece	26	Gearbox Mount Nuts
3	Ball	27	Gland Bolt
4	Stem	28	Gland Bolt
5	Seat Ring	29	Spring Pin
6	Seat Insert	30	Spring Pin
7	Segment ring	31	Gear
8	Gland	32	Thrust Washer
9	Gland Plate	33	DU Bearing
10	Plate Trunnion	34	DU Bearing
11	Lifting Plate	35	DU Bearing
12	Leg	36	DU Thrust Bearing
13	O-Ring	37	Gasket
14	O-Ring	38	O-Ring Backup Ring
15	O-Ring	39	Stem Fire Safe Seal
16	O-Ring	40	Spring
17	O-Ring	41	Fire-safe Gasket
18	C Type Key	42	Anti-static Spring
19	Parallel Pins	43	Sealant Injection Fitting
20	Parallel Pins	44	Sealant Injection Fitting
21	Parallel Pins	45	Check Valve
22	Body Studs	46	Vent Valve
23	Body Studs	47	Plug
24	Body Nuts		

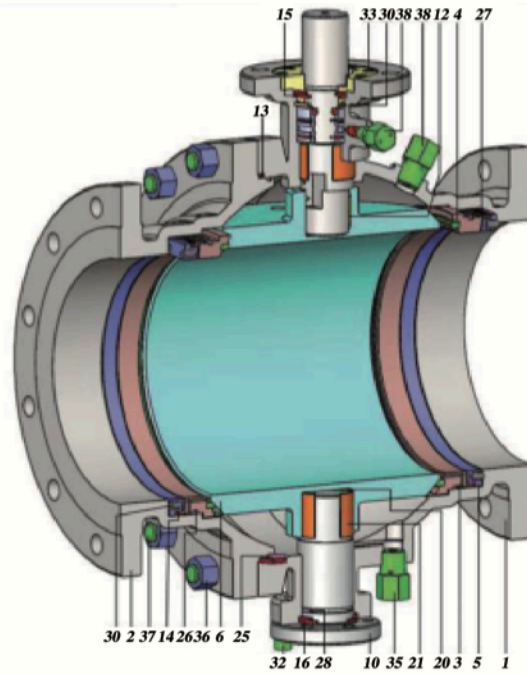


STANDARD FEATURES

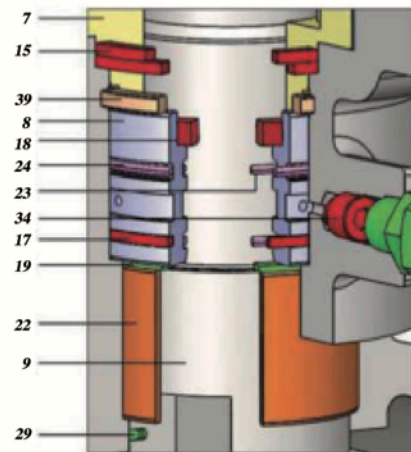
Cast Body Trunnions

SUNE cast body standard trunnion valves are furnished with the following fire-safe materials:

1. Body
2. Cap
3. Seat Ring
4. Seat Inserts
5. Seat Spring
6. Ball
7. Gland Flange
8. Gland Bush
9. Stem
10. Trunnion
11. Key
12. Ball Joint Key
13. Body Fire-Proof Gasket
14. Seat Fire-Proof Gasket
15. Gland Fire-Proof Gasket
16. Trunnion Fire-Proof Gasket
17. Gland Bush Fire-Proof Gasket
18. Graphite Stem Seal
19. Stem Thrust Washer
20. Trunnion Thrust Washer
21. Bearing
22. Bearing
23. Stem O-Ring
24. Gland O-Ring
25. Body O-Ring
26. Seat O-Ring
27. Seat O-Ring
28. Trunnion O-Ring
29. Anti-Static Spring And Ball
30. Spring
31. Pin
32. Screw
33. Screw
34. Buried Check
35. Drain & Vent Valve
36. Stem Injection
37. Stud
38. Nut
39. Stop Ring



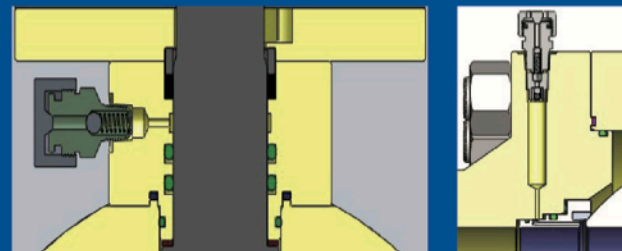
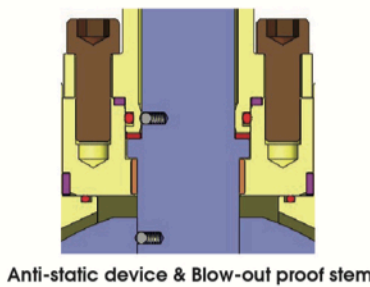
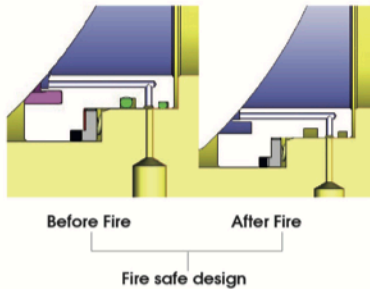
SUNE cast body trunnion mounted ball valves are designed, constructed and tested according to API-6D.



STANDARD FEATURES

Design Features & Benefits

- Anti-static device
- Blow-out proof stem
- Fire safe design approved
- Double block and bleed (Standard for all trunnion ball valve)
- Pressure self-relief
- Emergency seal recovery
- Secondary stem & seat seal system

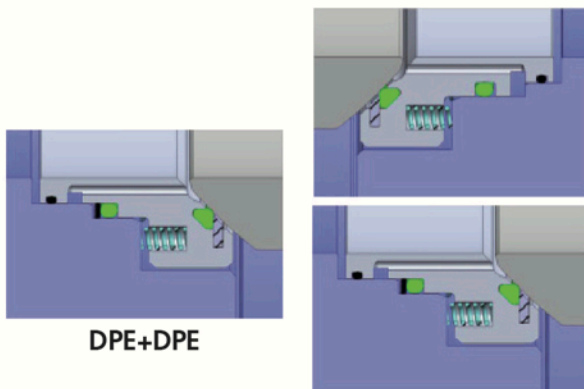


Emergency seal recovery
Secondary Stem & Seat seal system

- Low operating torque
- Lockable design
- Less Maintenance

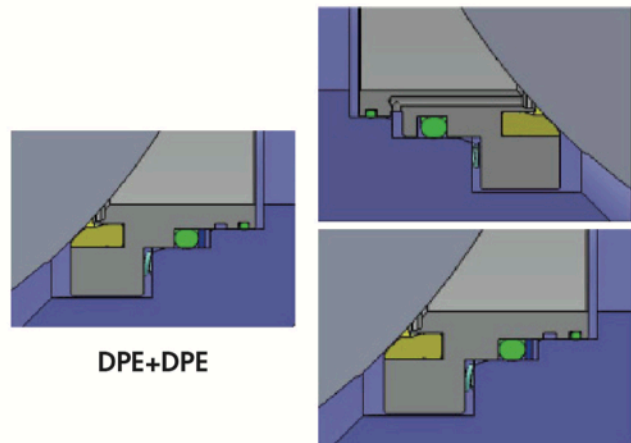
DPE Seat (Double Piston Effect)

Standard type
Seatinsert material : PEEK / Devlon V /
NYLON / RPTFE/ PTFE...



DPE+DPE

SPE(Upstream)+DPE(Downstream)



DPE+DPE

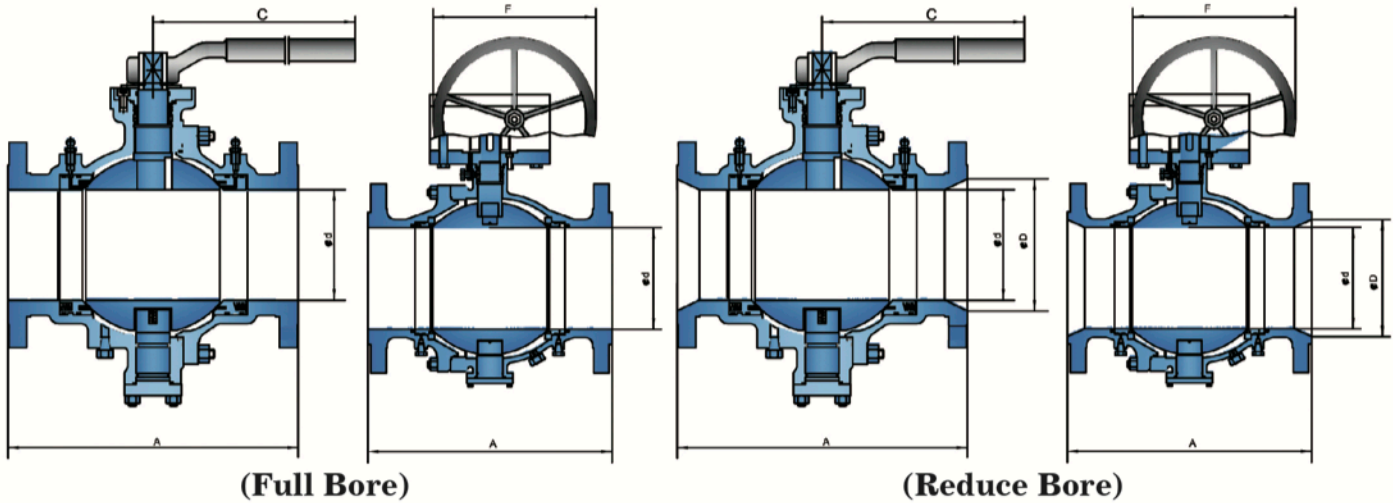
SPE(Upstream)+DPE(Downstream)

Deltaring sealing type

Seatinsert material : Elastomeric (FKM /
HNBR / EPDM ...) / AED type (Option)
Shore Hardness : SH.93~97



CAST TRUNNION BALL VALVE Model 150



Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap	A216 WCB	A216 WCB	A351 CF8M
Ball	A105N*	316SS	316SS
Stem	AISI 4140*	A182 F316	A182 F316
Seats & Inserts	ASTM A105N* + RTFE	A182 F316 + RTFE	A182 F316 + RTFE
O-Rings	Viton-B	Viton-B	Viton-B

* Electroless Nickel Plating .001"

Class 150 • Full Bore

Dimensions in inches

Valve Size	2" 50mm	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm	14" 350mm	16" 400mm	18" 450mm	20" 500mm	24" 600mm	30" 750mm
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18	28.94
Face to Face (A)	RF	7.00	8.00	9.00	16.00	18.00	21.00	24.00	27.00	30.00	34.00	42.00	51.00
	BWE	8.50	11.10	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	39.00	45.00
Handle Length (C)	9.84	13.78	19.69	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	-	-	-	13.78	18.11	23.62	23.62	23.62	23.62	29.53	29.53	29.53	29.53
Approx. Weight (lbs.)	37	73	110	205	366	602	1047	1257	1715	2061	2623	3481	-

Larger sizes are available upon request.

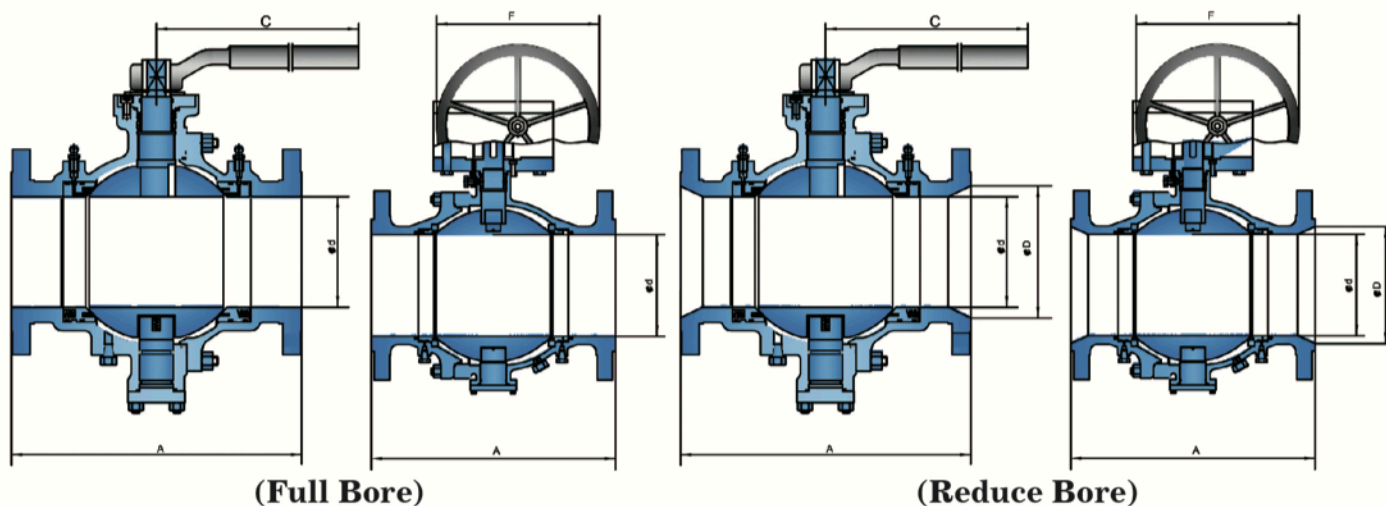
Class 150 • Reduced Bore

Dimensions in inches

Valve Size	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm	14" 350mm	16" 400mm	18" 450mm	20" 500mm	24" 600mm	30" 750mm
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18
Face to Face (A)	RF	8.00	9.00	16.00	18.00	21.00	24.00	27.00	30.00	34.00	42.00	51.00
	BWE	11.10	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	39.00	45.00
Handle Length (C)	9.84	13.78	19.69	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	-	-	13.78	18.11	23.62	23.62	23.62	23.62	29.53	29.53	29.53	29.53
Approx. Weight (lbs.)	66	104	198	355	591	1030	1235	1689	1989	2491	3351	-

Larger sizes are available upon request.

CAST TRUNNION BALL VALVE Model 300



Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap Ball Stem Seats & Inserts O-Rings	A216 WCB A105N* AISI 4140* ASTM A105N* + RTFE Viton-B	A216 WCB 316SS A182 F316 A182 F316 + RTFE Viton-B	A351 CF8M 316SS A182 F316 A182 F316 + RTFE Viton-B

* Electroless Nickel Plating .001"

Class 300 • Full Bore

Dimensions in inches

Valve Size	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	50mm	80mm	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18
Face to Face (A)	RF	8.50	11.14	12.00	18.00	19.76	22.36	25.50	30.00	33.00	36.00	45.00
	BWE	8.50	11.14	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	45.00
Handle Length (C)	9.84	13.78	19.69	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	-	-	-	13.78	23.62	23.62	23.62	23.62	23.62	29.53	29.53	29.53
Approx. Weight (lbs.)	40	88	139	331	529	672	1118	1327	2205	2557	2910	4131

Larger sizes are available upon request.

Class 300 • Reduced Bore

Dimensions in inches

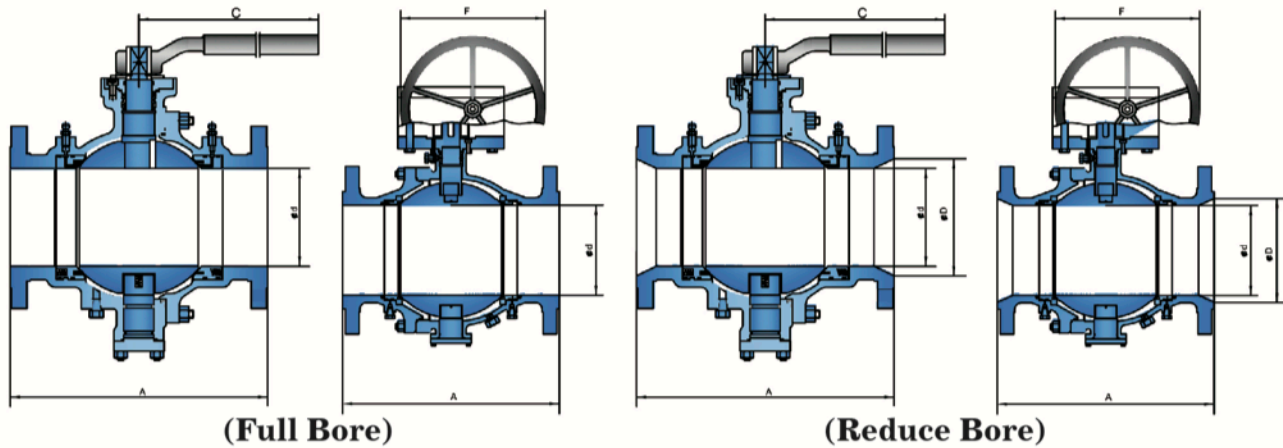
Valve Size	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	80mm	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm
Bore Size (d)	2.00	3.00	4.00	6.00	8.00	10.00	11.93	13.15	15.16	17.17	19.17
Face to Face (A)	RF	11.14	12.00	18.00	19.76	22.36	25.50	30.00	33.00	36.00	45.00
	BWE	11.14	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	45.00
Handle Length (C)	9.84	13.78	19.69	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	-	-	-	13.78	23.62	23.62	23.62	23.62	23.62	29.53	29.53
Approx. Weight (lbs.)	84	132	324	516	650	1076	1257	2006	2249	2822	3682

Larger sizes are available upon request.



CAST TRUNNION BALL VALVE

Model 600



Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap	A216 WCB	A216 WCB	A351 CF8M
Ball	A105N*	A182 F316	A182 F316
Stem	AISI 4140*	A182 F316	A182 F316
Seats & Inserts	ASTM A105N* + Devlon V	A182 F316 + Devlon V	A182 F316 + Devlon V
O-Rings	Viton-B	Viton-B	Viton-B

* Electroless Nickel Plating .001"

Class 600 • Full Bore

Dimensions in inches

Valve Size	2" 50mm	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm	14" 350mm	16" 400mm	18" 450mm	20" 500mm	24" 600mm
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18
Face to Face (A)	RF	11.50	14.02	17.00	22.00	25.98	30.98	33.00	35.00	39.00	43.00	47.00
	RTJ	11.61	14.13	17.10	22.10	26.14	31.14	37.00	35.10	39.10	43.10	47.20
	BWE	11.50	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00
Handle Length (C)	-	-	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	7.87	13.78	13.78	18.11	23.62	23.62	23.62	29.53	29.53	29.53	29.53	29.53
Approx. Weight (lbs.)	60	110	176	555	772	1323	1808	2491	3417	4630	6173	7994

Larger sizes are available upon request.

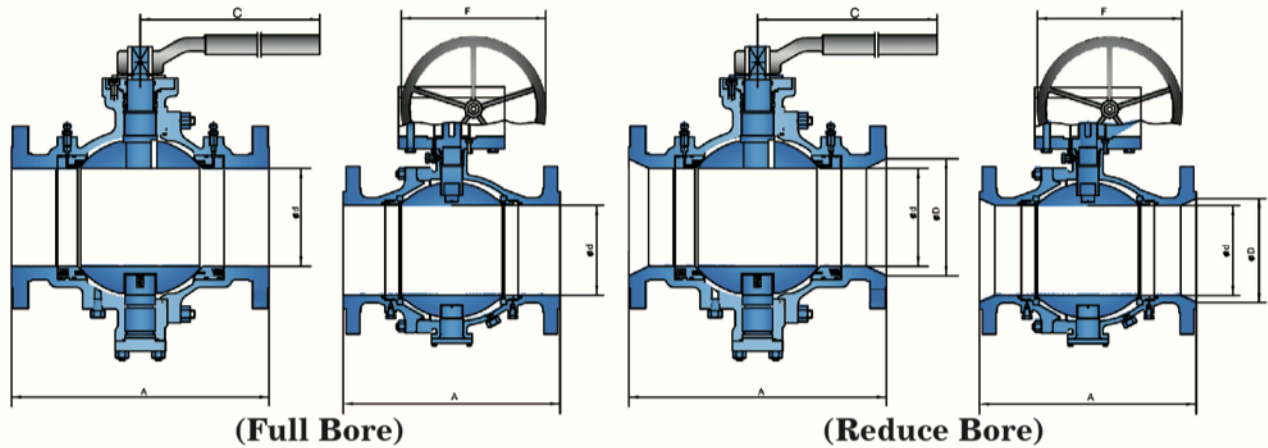
Class 600 • Reduced Bore

Dimensions in inches

Valve Size	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm	14" 350mm	16" 400mm	18" 450mm	20" 500mm	24" 600mm
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17
Face to Face (A)	RF	14.02	17.00	22.00	25.98	30.98	33.00	35.00	39.00	43.00	47.00
	RTJ	14.13	17.10	22.10	26.14	31.14	37.00	35.10	39.10	43.10	47.20
	BWE	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00
Handle Length (C)	-	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	7.87	13.78	13.78	18.11	23.62	23.62	23.62	29.53	29.53	29.53	29.53
Approx. Weight (lbs.)	90	154	269	562	970	1459	2337	3175	4101	5291	7143

Larger sizes are available upon request.

CAST TRUNNION BALL VALVE Model 900



Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap	A216 WCB	A216 WCB	A351 CF8M
Ball	A105N*	A182 F316	A182 F316
Stem	AISI 4140*	A182 F316	A182 F316
Seats & Inserts	ASTM A105N* + Devlon V	A182 F316 + Devlon V	A182 F316 + Devlon V
O-Rings	Viton-B	Viton-B	Viton-B

* Electroless Nickel Plating .001"

Class 900 • Full Bore

Dimensions in inches

Valve Size	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm	14" 350mm	16" 400mm	18" 450mm	20" 500mm	24" 600mm
Bore Size (d)	2.90	3.90	5.90	7.90	9.90	11.90	12.68	14.69	16.65	18.54	22.44
Face to Face (A)	RF	15.00	18.00	24.00	29.02	32.99	38.00	40.50	44.50	48.00	61.00
	RTJ	15.10	18.10	24.10	29.13	33.11	38.10	40.90	44.90	48.50	61.70
	BWE	15.00	18.00	24.00	29.00	33.00	38.00	40.50	44.50	48.00	61.00
Handle Length (C)	35.40	47.20	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	13.78	18.11	23.62	23.62	29.53	29.53	29.53	29.53	29.53	29.53	31.50
Approx. Weight (lbs.)	214	304	635	988	1649	2244	3082	4030	5132	6455	9206

Larger sizes are available upon request.

Class 900 • Reduced Bore

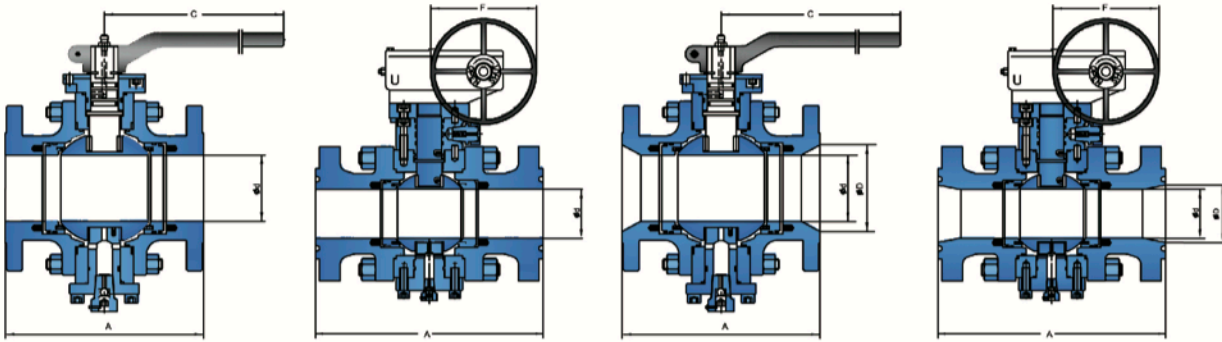
Dimensions in inches

Valve Size	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm	14" 350mm	16" 400mm	18" 450mm	20" 500mm	24" 600mm
Bore Size (d)	2.90	3.90	5.90	7.90	9.90	11.90	12.68	14.69	16.65	18.54
Face to Face (A)	RF	18.00	24.00	29.02	32.99	38.00	40.50	44.50	48.00	61.00
	RTJ	18.10	24.10	29.13	33.11	38.10	40.90	44.90	48.50	61.70
	BWE	18.00	24.00	29.00	33.00	38.00	40.50	44.50	48.00	61.00
Handle Length (C)	35.40	47.20	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	13.78	18.11	23.62	23.62	29.53	29.53	29.53	29.53	29.53	29.53
Approx. Weight (lbs.)	227	443	767	1318	1737	2425	3131	4251	5353	7888

Larger sizes are available upon request.

FORGED TRUNNION BALL VALVE

Model 150



(Full Bore)

(Reduce Bore)

Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap	A216 WCB	A216 WCB	A351 CF8M
Ball	A105N*	A182 F316	A182 F316
Stem	AISI 4140*	A182 F316	A182 F316
Seats & Inserts	ASTM A105N* + RTFE	A182 F316 + RTFE	A182 F316 + RTFE
O-Rings	Viton-B	Viton-B	Viton-B

* Electroless Nickel Plating .003"

Class 150 • Full Bore

Dimensions in inches

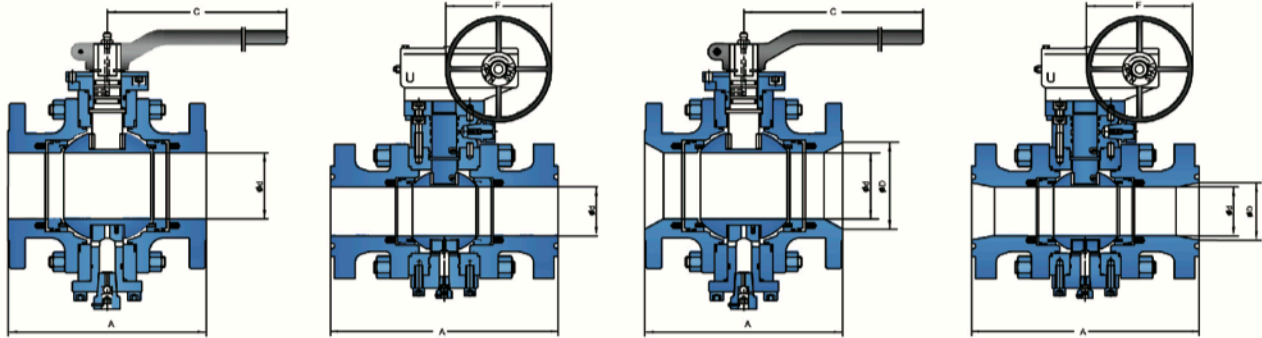
Valve Size	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"	
	50mm	80mm	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm	650mm	700mm	750mm	800mm	850mm	900mm	950mm	mm	mm	mm	mm	mm	
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18	24.92	26.93	28.94	30.67	32.68	34.41	36.42	38.43	40.16	42.13	44.02	45.91	
Face to Face (A)	RF	7.00	8.00	9.00	16.00	18.00	21.00	24.00	27.00	30.00	34.00	36.00	42.00	45.00	49.00	51.00	54.00	58.00	60.00	62.00	65.00	67.00	71.00	73.00	75.00
	BWE	8.50	11.10	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	39.00	45.00	49.00	53.00	55.00	60.00	64.00	68.00	-	-	-	-	-	-
Handle Length (C)	9.84	13.78	17.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	-	7.87	7.87	13.78	18.11	23.62	23.62	23.62	23.62	29.53	29.53	29.53	29.53	29.53	29.53	29.53	29.53	29.53	29.53	31.50	31.50	31.50	31.50	31.50	31.50
Approx. Weight (lbs.)	47	71	115	362	761	970	1272	1894	2522	3175	4286	6180	7055	8918	13669	12103	14780	21164	21914	22644	26698	31372	36046	40477	

Class 150 • Reduced Bore

Dimensions in inches

Valve Size	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	48"
	80mm	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm	750mm	900mm	1120mm
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18	28.94	38.43
Face to Face (A)	RF	8.00	9.00	16.00	18.00	21.00	24.00	27.00	30.00	34.00	36.00	42.00	51.00	75.00
	BWE	11.10	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	39.00	45.00	55.00	68.00
Handle Length (C)	9.84	13.78	17.72	-	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	7.87	7.87	13.78	18.11	23.62	23.62	23.62	23.62	29.53	29.53	29.53	29.53	29.53	31.50
Approx. Weight (lbs.)	58	88	150	390	677	1122	1592	2028	2736	3682	4542	6433	11012	29806

FORGED TRUNNION BALL VALVE Model 300



(Full Bore)

(Reduce Bore)

Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap	A216 WCB	A216 WCB	A351 CF8M
Ball	A105N*	A182 F316	A182 F316
Stem	AISI 4140*	A182 F316	A182 F316
Seats & Inserts	ASTM A105N* + RTFE	A182 F316 + RTFE	A182 F316 + RTFE
O-Rings	Viton-B	Viton-B	Viton-B

* Electroless Nickel Plating .003"

Class 300 • Full Bore

Dimensions in inches

Valve Size	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"	
	50mm	80mm	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm	650mm	700mm	750mm	800mm	850mm	900mm	950mm	mm	mm	mm	mm	mm	
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18	24.92	26.93	28.94	30.67	32.68	34.41	36.42	38.43	40.16	42.13	44.02	45.91	
Face to Face (A)	RF	8.50	11.14	12.00	18.00	19.76	22.36	25.50	30.00	33.00	36.00	39.00	45.00	49.00	53.00	55.00	60.00	64.00	60.00	62.00	68.10	70.50	73.60	76.40	80.00
	BWE	8.50	11.14	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	39.00	45.00	49.00	53.00	55.00	60.00	64.00	68.00	-	-	-	-	-	-
Handle Length (C)	9.84	15.75	29.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Handwheel Diameter (F)	-	7.87	13.78	13.78	23.62	23.62	23.62	23.62	23.62	29.53	29.53	29.53	29.53	29.53	29.53	29.53	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	
Approx. Weight (lbs.)	55	101	170	465	710	1140	1671	2150	2976	3781	4608	6371	8234	10086	12324	13757	16248	18596	21649	24692	28770	32033	38625	41888	

Class 300 • Reduced Bore

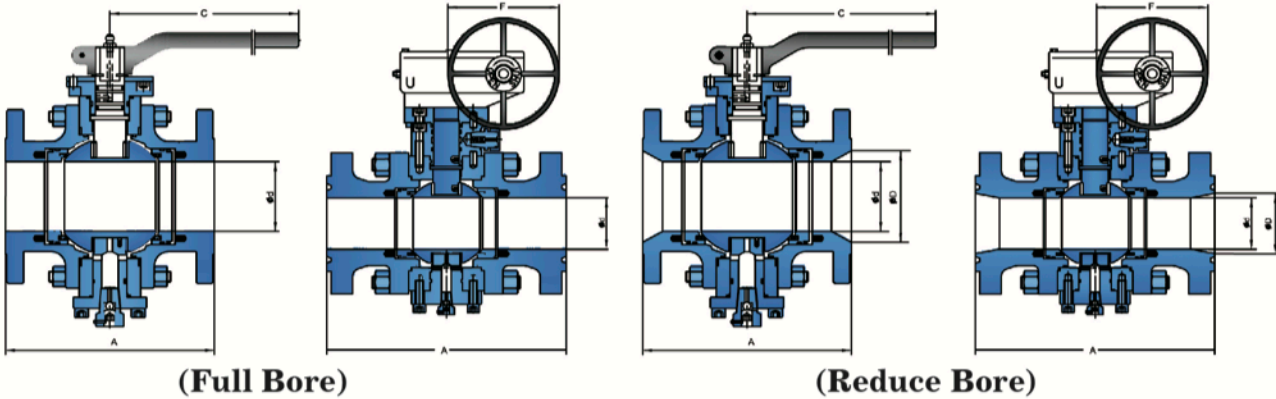
Dimensions in inches

Valve Size	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	48"
	80mm	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm	750mm	900mm	1120mm
Bore Size (d)	2.00	3.00	4.00	6.00	8.00	10.00	11.93	13.15	15.16	17.17	19.17	21.18	28.94	38.43
Face to Face (A)	RF	11.14	12.00	18.00	19.76	22.36	25.50	30.00	33.00	36.00	39.00	45.00	55.00	68.00
	BWE	11.14	12.00	18.00	20.50	22.00	25.00	30.00	33.00	36.00	39.00	45.00	55.00	68.00
Handle Length (C)	9.84	15.75	29.53	-	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	-	7.87	13.78	13.78	23.62	23.62	23.62	23.62	23.62	29.53	29.53	29.53	29.53	31.50
Approx. Weight (lbs.)	79	121	247	489	840	1365	2028	2315	3373	4034	4894	7055	13448	33069



FORGED TRUNNION BALL VALVE

Model 600



Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap	A216 WCB	A216 WCB	A351 CF8M
Ball	A105N*	A182 F316	A182 F316
Stem	AISI 4140*	A182 F316	A182 F316
Seats & Inserts	ASTM A105N* + Devlon V	A182 F316 + Devlon V	A182 F316 + Devlon V
O-Rings	Viton-B	Viton-B	Viton-B

* Electroless Nickel Plating .003"

Class 600 • Full Bore

Dimensions in inches

Valve Size	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"	
	50mm	80mm	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm	650mm	700mm	750mm	800mm	850mm	900mm	950mm	mm	mm	mm	mm	mm	
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18	24.92	26.93	28.94	30.67	32.68	34.41	36.42	38.43	40.16	42.13	44.02	45.91	
Face to Face (A)	RF	11.50	14.02	17.00	22.00	25.98	30.98	33.00	35.00	39.00	43.00	47.00	54.30	57.00	61.00	65.00	70.00	76.00	82.00	73.60	76.80	80.70	83.90	86.20	90.00
	RTJ	11.61	14.13	17.10	22.10	26.14	31.14	37.00	35.10	39.10	43.10	47.20	55.40	57.50	61.50	65.50	70.60	76.60	82.60	-	-	-	-	-	-
	BWE	11.50	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	54.30	57.00	61.00	65.00	70.00	76.00	82.00	-	-	-	-	-	-
Handle Length (C)	15.75	29.53	35.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	7.87	13.78	13.78	18.11	23.62	23.62	29.53	29.53	29.53	29.53	29.53	29.53	29.53	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50
Approx. Weight (lbs.)	73	140	258	628	996	1623	2205	2930	3814	5038	6204	10847	12103	13360	14749	17251	19092	23479	27933	32408	36178	40940	48391	53352	

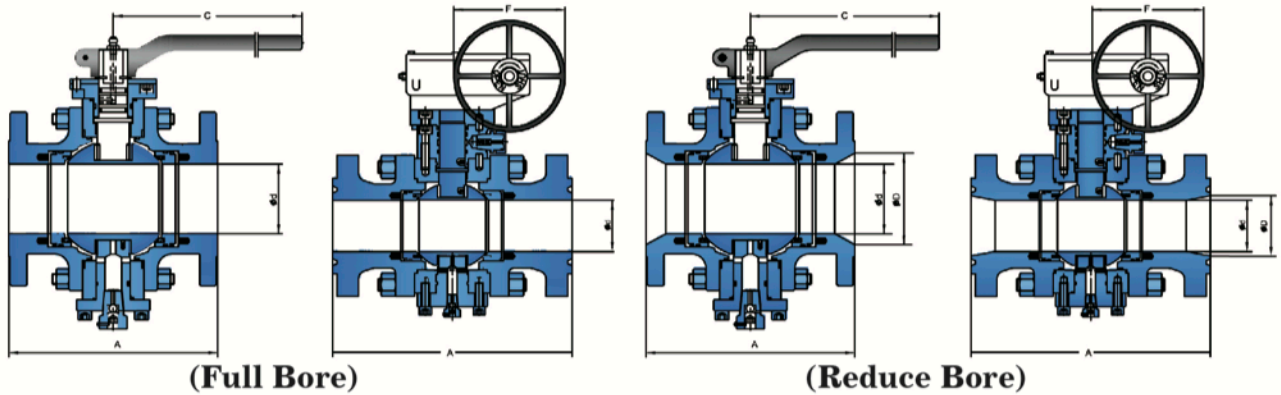
Class 600 • Reduced Bore

Dimensions in inches

Valve Size	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	48"	
	80mm	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm	750mm	900mm	1120mm	
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18	28.94	38.43	
Face to Face (A)	RF	14.02	17.00	22.00	25.98	30.98	33.00	35.00	39.00	43.00	47.00	54.30	65.00	82.00	90.00
	RTJ	14.13	17.10	22.10	26.14	31.14	37.00	35.10	39.10	43.10	47.20	55.40	65.50	82.60	-
	BWE	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	54.30	65.00	82.00	-
Handle Length (C)	15.75	29.53	35.43	-	-	-	-	-	-	-	-	-	-	-	
Handwheel Diameter (F)	7.87	13.78	13.78	18.11	23.62	23.62	23.62	29.53	29.53	29.53	29.53	29.53	31.50	31.50	
Approx. Weight (lbs.)	103	190	388	670	1182	1839	2403	2888	4136	5004	7584	10428	18960	37919	



FORGED TRUNNION BALL VALVE Model 900



Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap	A216 WCB	A216 WCB	A351 CF8M
Ball	A105N*	A182 F316	A182 F316
Stem	AISI 4140*	A182 F316	A182 F316
Seats & Inserts	ASTM A105N* + Devlon V	A182 F316 + Devlon V	A182 F316 + Devlon V
O-Rings	Viton-B	Viton-B	Viton-B

* Electroless Nickel Plating .003"

Class 900 • Full Bore

Dimensions in inches

Valve Size	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	38"	40"	
	80mm	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm	650mm	700mm	750mm	800mm	850mm	900mm	950mm	mm	
Bore Size (d)	2.90	3.90	5.90	7.90	9.90	11.90	13.15	15.16	17.17	19.17	21.18	24.92	26.93	28.94	30.67	32.68	34.41	36.42	38.43	
Face to Face (A)	RF	14.02	17.00	22.00	25.98	30.98	33.00	35.00	39.00	43.00	47.00	54.30	57.00	61.00	65.00	70.00	76.00	82.00	73.60	76.80
	RTJ	14.13	17.10	22.10	26.14	31.14	37.00	35.10	39.10	43.10	47.20	55.40	57.50	61.50	65.50	70.60	76.60	82.60	-	-
	BWE	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	54.30	57.00	61.00	65.00	70.00	76.00	82.00	-	-
Handle Length (C)	29.53	35.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	13.78	13.78	18.11	23.62	23.62	23.62	29.53	29.53	29.53	29.53	29.53	29.53	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50
Approx. Weight (lbs.)	140	258	628	996	1623	2205	2930	3814	5038	6204	10847	12103	13360	14749	17251	19092	23479	27933	32408	

Class 900 • Reduced Bore

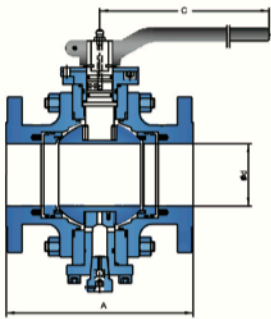
Dimensions in inches

Valve Size	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"
	100mm	150mm	200mm	250mm	250mm	350mm	400mm	450mm	500mm	600mm	750mm	900mm
Bore Size (d)	2.90	3.90	5.90	7.90	9.90	11.90	12.68	14.69	16.65	18.54	22.44	28.03
Face to Face (A)	RF	18.00	24.00	29.02	32.99	38.00	40.50	44.50	48.00	52.00	61.00	74.00
	RTJ	18.10	24.10	29.13	33.11	38.10	40.90	44.90	48.50	52.50	61.70	74.90
	BWE	18.00	24.00	29.00	33.00	38.00	40.50	44.50	48.00	52.00	61.00	-
Handle Length (C)	35.43	47.24	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	13.78	18.11	23.62	23.62	29.53	29.53	29.53	29.53	29.53	29.53	31.50	31.50
Approx. Weight (lbs.)	245	472	1058	1433	1914	2888	4034	4861	6923	10582	17595	34509

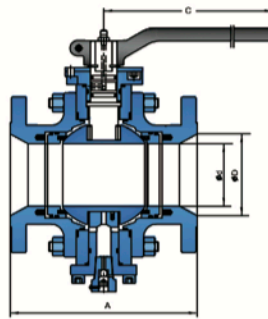
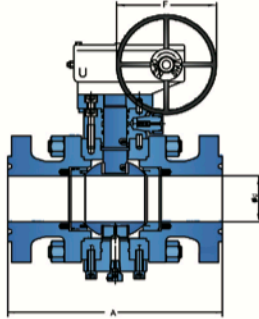


FORGED TRUNNION BALL VALVE

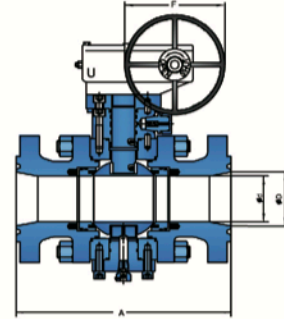
Model 1500



(Full Bore)



(Reduce Bore)



Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap	A216 WCB	A216 WCB	A351 CF8M
Ball	A105N*	A182 F316	A182 F316
Stem	AISI 4140*	A182 F316	A182 F316
Seats & Inserts	ASTM A105N* + Devlon V	A182 F316 + Devlon V	A182 F316 + Devlon V
O-Rings	Viton-B	Viton-B	Viton-B

* Electroless Nickel Plating .003"

Class 1500 • Full Bore

Dimensions in inches

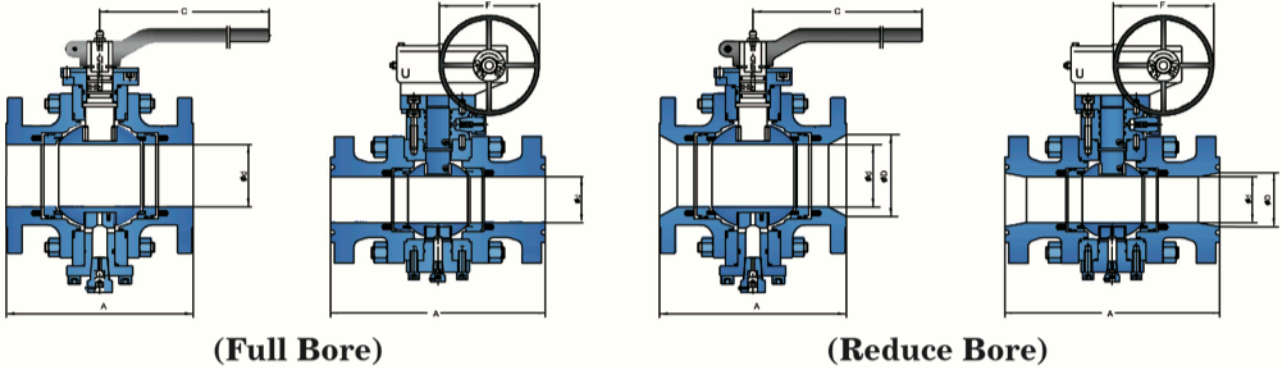
Valve Size	2" 50mm	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm	14" 350mm	16" 400mm	18" 450mm	20" 500mm	24" 600mm
Bore Size (d)	1.93	2.91	3.94	5.67	7.56	9.41	11.30	12.40	14.17	15.98	17.87	21.50
Face to Face (A)	RF	14.49	18.50	21.50	27.76	32.76	39.00	44.50	49.50	54.50	60.50	65.50
	RTJ	14.61	18.62	21.61	27.99	33.11	39.37	45.12	50.24	55.39	61.38	66.38
	BWE	14.50	18.50	21.50	27.80	32.80	39.00	44.50	49.50	54.50	-	-
Handle Length (C)	29.53	47.24	-	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	13.78	18.11	23.62	23.62	29.53	29.53	29.53	29.53	29.53	31.50	31.50	31.50
Approx. Weight (lbs.)	143	320	571	1047	1810	4026	4784	4960	6085	8038	9914	15765

Class 1500 • Reduced Bore

Dimensions in inches

Valve Size	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm	14" 350mm	16" 400mm	18" 450mm	20" 500mm	24" 600mm
Bore Size (d)	1.90	2.90	3.90	5.90	7.90	9.90	11.90	12.68	14.69	16.65	18.54
Face to Face (A)	RF	18.50	21.50	27.76	32.76	39.00	44.50	49.50	54.50	60.50	65.50
	RTJ	18.62	21.61	27.99	33.11	39.37	45.12	50.24	55.39	61.38	66.38
	BWE	18.50	21.50	27.80	32.80	39.00	44.50	49.50	54.50	-	-
Handle Length (C)	29.53	47.24	-	-	-	-	-	-	-	-	-
Handwheel Diameter (F)	13.78	18.11	23.62	23.62	29.53	29.53	29.53	29.53	29.53	31.50	31.50
Approx. Weight (lbs.)	187	373	761	1321	2637	2954	4564	5445	6504	7385	12897

FORGED TRUNNION BALL VALVE Model 2500



Standard Materials

Part	Carbon steel valve with carbon steel trim	Carbon steel valve with stainless steel trim	Stainless steel valve
Body/Cap	A216 WCB	A216 WCB	A351 CF8M
Ball	A105N*	A182 F316	A182 F316
Stem	17-4PH	17-4PH	17-4PH
Seats & Inserts	ASTM A105N* + Devlon V	A182 F316 + Devlon V	A182 F316 + Devlon V
O-Rings	Viton-B	Viton-B	Viton-B

* Electroless Nickel Plating .003"

Class 2500 • Full Bore

Dimensions in inches

Valve Size	2" 50mm	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm
Bore Size (d)	1.65	2.44	3.43	5.16	7.05	8.78	10.43
Face to Face (A)	RF	17.76	22.76	26.50	35.98	40.24	50.00
	RTJ	17.87	22.99	26.89	36.50	40.87	50.87
	BWE	17.80	22.80	26.50	36.00	40.20	50.00
Handle Length (C)	-	-	-	-	-	-	-
Handwheel Diameter (F)	18.11	18.11	23.62	29.53	29.53	29.53	29.53
Approx. Weight (lbs.)	390	620	866	1518	2974	4994	7187

Class 2500 • Reduced Bore

Dimensions in inches

Valve Size	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 250mm
Bore Size (d)	1.65	2.44	3.43	5.16	7.05	8.78
Face to Face (A)	RF	22.76	26.50	35.98	40.24	50.0
	RTJ	22.99	26.89	36.50	40.87	50.87
	BWE	22.8	26.5	36.0	40.2	50.0
Handle Length (C)	-	-	-	-	-	-
Handwheel Diameter (F)	18.11	18.11	23.62	29.53	29.53	29.53
Approx. Weight (lbs.)	400	601	1357	2416	3667	5647



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Office :

Jl. Maple Timur 3 Blok CC 08,
Summarecon Bekasi, Jawa Barat

Jl. Palem Raja No 12 Taman Beverly
Lippo Cikarang, Bekasi, Jawa Barat

Email :

Info@mkucorp.com

Phone :

021 - 29450182