



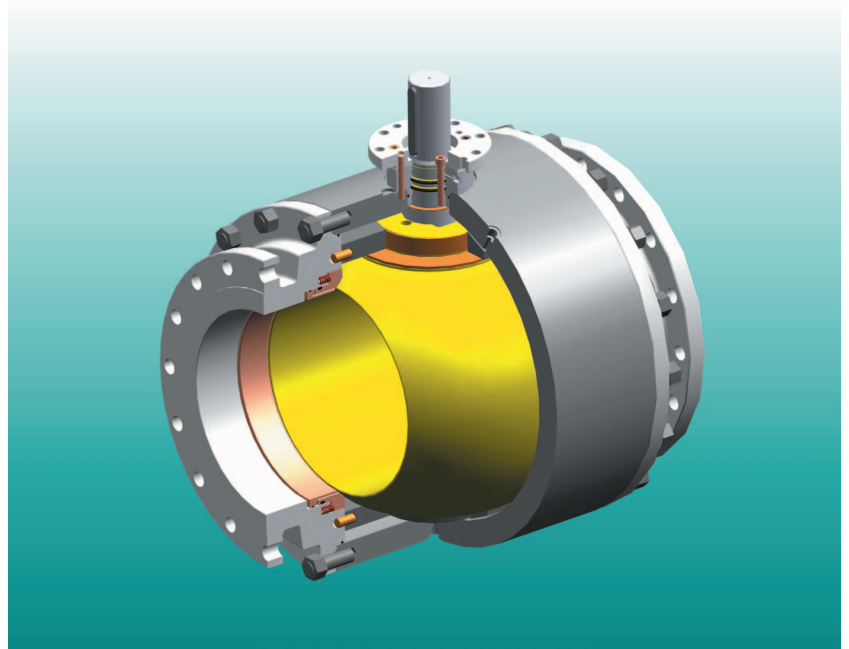
ABV Series BT3



Side Entry Trunnion Mounted Ball Valves

CHARACTERISTICS

- Trunnion Mounted Ball Valves, with ball hinged on supports and floating metal or soft seats.
- Pressure range: from ASME Class 150 to ASME Class 4500, and from API Class 2000 to API Class 15000.
- Temperature range: from -46°C to 450°C .
- On request possibility to use in cryogenic conditions (temperatures up to -196°C).
- Three Pieces Forged Steel Valve.
- Low pressure loss through the valve.
- Low actuation torque.
- "CE" marking in compliance with PED Directive 97/23/EC.
- Full bore or Reduced bore.
- Different kinds of end connections (RF/RTJ Flanges, Butt Weld, Socket weld, Clamp Connection, Socket Welding).
- Wide availability of materials depending on the specifications (carbon steel, stainless steel or duplex steel for service in corrosive environments, Chrome-Molybdenum alloy steel for high temperature service, etc.).
- Materials with anti-corrosion properties according to NACE MR 0175.
- On request, seat pocket area overlay, seal area overlay, or completed cladding on wetted surface (welded overlays in Inconel 625, Stainless Steel 316, etc., or Electroless Nickel Plating).
- Suitable for manual (wrench or gear) or motorized actuation (hydraulic, pneumatic, gas-over-oil or electric actuator).



AVAILABLE SIZES & RATING

• NS 6" ÷ 48"	ASME 150 ÷ 600#	Full and reduced bore
• NS 6" ÷ 36"	ASME 900#	Full and reduced bore
• NS 6" ÷ 30"	ASME 1500#	Full and reduced bore
• NS 6" ÷ 24"	ASME 2500#	Full and reduced bore
• NS 6" ÷ 8"	ASME 4500#	Full and reduced bore
• NS 4.1/16" ÷ 7.1/16"	API 2000 ÷ 15000	Full and reduced bore

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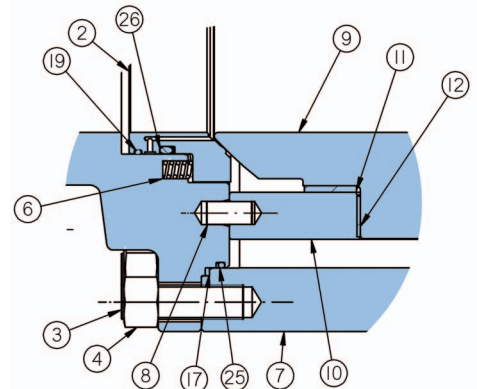
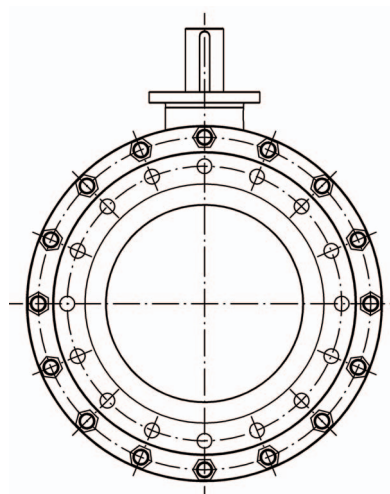
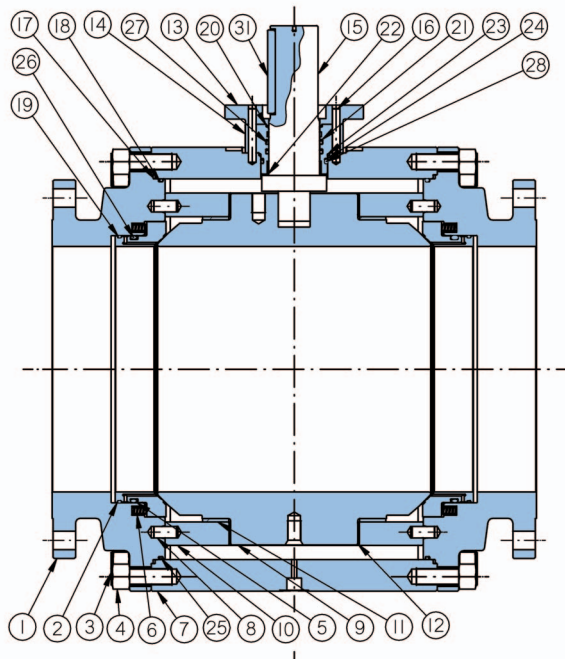
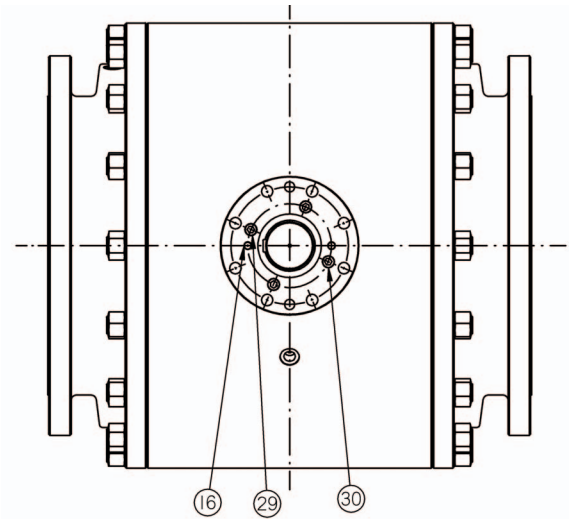


ABV Series BT3

Side Entry Trunnion Mounted Ball Valves

DESCRIPTION

1. Closure
2. Seat Ring
3. Body Stud
4. Body Stud-Nut
5. Seat Back-Up Ring
6. Seat Spring
7. Body
8. Trunnion Plate Pin
9. Ball
10. Trunnion Plate
11. Ball Thrust Washer
12. Ball Bushing
13. Adapter Flange
14. Gland Flange
15. Stem
16. Gland Flange Pin
17. Body Gasket
18. Closure Back-Up Ring
19. Seat O-Ring
20. Stem Gasket
21. Stem Back-Up Ring
22. Stem Thrust Washer
23. Gland Flange Gasket
24. Gland Flange Back-Up Ring
25. Closure O-Ring
26. Seat O-Ring
27. Stem O-Ring
28. Gland Flange O-Ring
29. Gland Flange Cap Screw
30. Adapter Flange Cap Screw
31. Stem Key



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ABV

Series BT2 - BT3

Side Entry Valves Standard Executions

SERVICE	CLASS	TEMPERATURE	SEALS	SEAT INSERT	BEARING	PRESSURE BOUNDARY	INTERNALS
General Non Corrosive	150 - 300	-29 to 180 °C	Viton HNBR ⁽¹⁾ O-Ring	PTFE	Carbon Steel - PTFE	A105	A105 (ENP)
	600 - 900 - 1500 2500			Nylon-PEEK			
	4500			PEEK			
	150 - 300	180 to 250 °C	PTFE Lipseal	PTFE	Carbon Steel - PTFE	A105	A105 (ENP)
	600 - 900 - 1500 2500 - 4500			PEEK			
	150 - 300 - 600 900			Metal ⁽²⁾			
150 - 300 - 600 900	250 to 450 °C	Graphite	Metal ⁽³⁾	Inconel 625	A105 A182 - F22	A105 A182 - F22	
Moderate Corrosive	150 - 300	-29 to 180 °C	Viton B-GF ⁽¹⁾ O-Ring	PTFE	Carbon Steel - PTFE	A105	A182 - F316
	600 - 900 - 1500 2500			Nylon-PEEK			17.4 PH
	4500			PEEK			17.4 PH
	150 - 300	180 to 250 °C	PTFE Lipseal	PTFE	Carbon Steel - PTFE	A105	A182 - F316
	600 - 900 - 1500 2500 - 4500			PEEK			17.4 PH
	150 - 300 - 600 900			Metal ⁽²⁾			17.4 PH
150 - 300 - 600 900	250 to 450 °C	Graphite	Metal ⁽³⁾	Inconel 625	A105 A182 - F22	A182 - F6a A182 - F316	
High Corrosive	150 - 300	-29 to 180 °C	Viton B-GF ⁽¹⁾ O-Ring	PTFE	Inconel 625-PTFE	A182 - F316	A182 - F316
	600 - 900 - 1500 2500			Nylon-PEEK			A182 - F51
	4500			PEEK			A182 - F51
	150 - 300	180 to 250 °C	PTFE Lipseal	PTFE	Inconel 625-PTFE	A182 - F316	A182 - F316
	600 - 900 - 1500 2500 - 4500			PEEK			A182 - F51
	150 - 300 - 600			Metal ⁽²⁾			A182 - F51
150 - 300 - 600	250 to 450 °C	Graphite	Metal ⁽³⁾	Inconel 625	A182 - F316	A182 - F316	
Sour Service ⁽⁴⁾ (H ₂ S)	150 - 300	-29 to 180 °C	Viton B-GF ⁽¹⁾ O-Ring	PTFE	Inconel 625-PTFE	A105	A105 (ENP)
	600 - 900 - 1500			Nylon-PEEK			A182 - F316
	2500 - 4500			PEEK			17.4 PH

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ABV

Series BT2 - BT3

Side Entry Valves
Standard Executions

NOTES

- 1) PTFE back-up provided for class 900 and above.
- 2) Tungsten carbide coated.
- 3) Chrome carbide coated.
- 4) Material according to NACE MR0175 requirements.

STANDARD FEATURES

- 1) End connection including Flanges, Butt Welds, Welded Pups, Clamp Connection.
- 2) Full bore and reduced bore.
- 3) Floating seats with automatic body cavity pressure relief.
- 4) Blow out proof stem.
- 5) Stem sealant injection.
- 6) Anti-static device.

OPTIONAL FEATURES

- 1) Fire safe design.
- 2) Metal to Metal sealing for any application.
- 3) Double piston effect.
- 4) Double block & bleed.
- 5) Seat sealant injection.
- 6) Locking device.
- 7) Explosive decompression resistant seal for gas applications.
- 8) Material according to NACE MR 0175 for any application.
- 9) Development of special trims and sealing for unusual service conditions.

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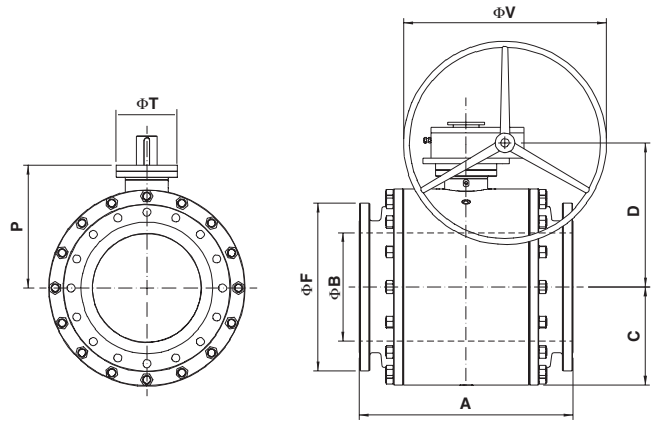


ABV

Series BT3

Side Entry Trunnion Ball Valves Full Bore

Dimensions (mm):



Class 150 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
6"	150	152	279	394	457	46	175	210	240	350	-	172
8"	200	203	343	457	521	470	220	250	300	350	-	278
10"	250	254	406	533	559	546	265	285	345	350	-	412
12"	300	305	483	610	635	622	285	315	370	500	-	580
14"	350	337	533	686	762	699	330	400	460	700	-	760
16"	400	387	597	762	838	775	360	420	480	700	-	1050
18"	450	438	635	864	914	876	400	450	530	700	-	1220
20"	500	489	699	914	991	927	430	495	-	-	-	1798
22"	550	540	749	1041	1092	1054	475	525	-	-	-	2367
24"	600	591	813	1067	1143	1080	520	585	-	-	-	3097
26"	650	635	870	1143	1245	-	560	630	-	-	-	3687
28"	700	686	927	1245	1346	-	650	645	-	-	-	4495
30"	750	736	984	1295	1397	-	700	690	-	-	-	5230
32"	800	781	1061	1372	1524	-	745	740	-	-	-	6820
36"	900	876	1168	1524	1727	-	805	810	-	-	-	8810
40"	1000	976	1289	1780	1780	-	840	920	-	-	-	10500
42"	1050	1020	1346	1845	1845	-	875	965	-	-	-	12600

Class 300 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
6"	150	152	318	403	403	419	175	210	240	350	-	195
8"	200	203	381	502	521	518	220	250	300	350	-	315
10"	250	254	445	568	559	584	265	285	345	450	-	515
12"	300	305	521	648	635	664	285	315	370	700	-	760
14"	350	337	584	762	762	778	330	400	460	700	-	1020
16"	400	387	648	838	838	854	360	420	490	700	-	1450
18"	450	438	711	914	914	930	400	450	530	700	-	1610
20"	500	489	775	991	991	1010	430	495	-	-	-	2207
22"	550	540	838	1092	1092	1114	475	525	-	-	-	2797
24"	600	591	914	1143	1143	1165	520	585	-	-	-	3470
26"	650	635	972	1245	1245	1270	560	630	-	-	-	4670
28"	700	686	1035	1346	1346	1372	650	645	-	-	-	5780
30"	750	736	1092	1397	1397	1422	700	690	-	-	-	6600
32"	800	781	1149	1524	1524	1553	745	740	-	-	-	7940
36"	900	876	1270	1727	1727	1756	805	810	-	-	-	10100
40"	1000	976	1238	1950	1950	-	870	960	-	-	-	11800
42"	1050	1020	1289	2020	2020	-	940	1200	-	-	-	13500

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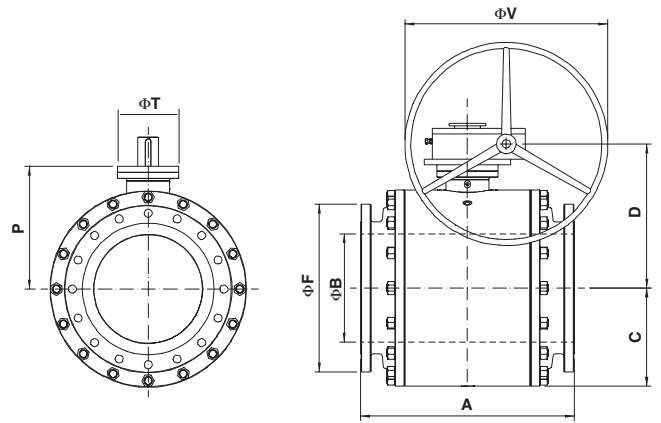


ABV

Series BT3

Side Entry Trunnion Ball Valves
Full Bore

Dimensions (mm):



Class 600 LBS

NOMINAL SIZE		BORE		FLANGE		END TO END			OTHER DATA				
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	Φ V	Φ T	Weight (kg)	
6"	150	152	356	559	559	562	190	220	250	350	-	255	
8"	200	203	419	660	660	664	230	270	340	500	-	460	
10"	250	254	508	787	787	791	280	300	365	700	-	735	
12"	300	305	559	838	838	841	300	340	395	700	-	1020	
14"	350	337	603	889	889	892	350	430	490	700	-	1195	
16"	400	387	686	991	991	994	395	460	520	700	-	1515	
18"	450	438	743	1092	1092	1095	440	480	580	700	-	2099	
20"	500	489	813	1194	1194	1200	490	505	-	-	-	2640	
22"	550	540	870	1295	1295	1305	510	545	-	-	-	3790	
24"	600	591	940	1397	1397	1407	570	600	-	-	-	4740	
26"	650	635	1016	1448	1448	1461	620	645	-	-	-	5650	
28"	700	686	1073	1549	1549	1562	665	695	-	-	-	6760	
30"	750	736	1130	1651	1651	1664	710	750	-	-	-	8380	
32"	800	781	1194	1778	1778	1794	755	785	-	-	-	9740	
36"	900	874	1315	2090	2090	2100	816	850	-	-	-	11300	
40"	1000	976	1321	2300	2300	-	890	975	-	-	-	13100	

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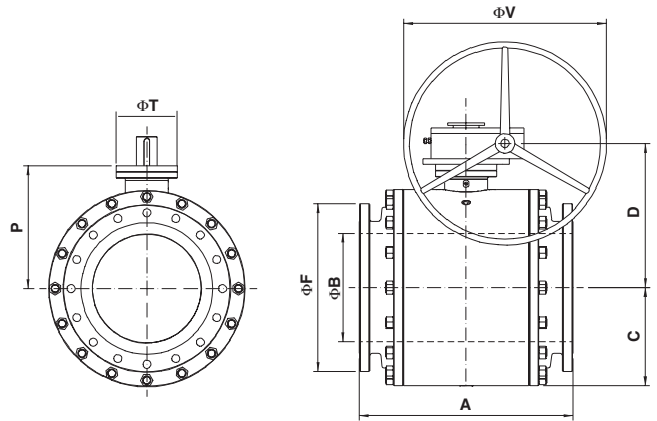


ABV

Series BT3

Side Entry Trunnion Ball Valves Full Bore

Dimensions (mm):



Class 900 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
6"	150	152	381	610	610	613	195	220	280	500	-	352
8"	200	203	470	737	737	740	235	250	320	700	-	598
10"	250	254	546	838	838	841	310	380	365	700	-	985
12"	300	305	610	965	965	968	340	395	500	700	-	1420
14"	350	324	641	1029	1029	1038	380	440	550	700	-	1680
16"	400	375	705	1130	1130	1140	415	480	600	700	-	2060
18"	450	425	787	1219	1219	1232	500	485	-	-	-	2860
20"	500	473	857	1321	1321	1334	500	535	-	-	-	5400
24"	600	571	1041	1549	1549	1568	615	645	-	-	-	6850
26"	650	619	1086	1651	1651	1674	650	690	-	-	-	8040
28"	700	667	1168	1753	1753	1775	670	715	-	-	-	9970
30"	750	714	1232	1880	1880	1902	725	780	-	-	-	12210
32"	800	760	1315	2010	2010	-	785	852	-	-	-	13950
36"	900	855	1461	2280	2280	-	920	1010	-	-	-	15200

Class 1500 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
6"	150	146	394	705	705	711	210	260	320	700	-	482
8"	200	193	483	832	832	841	240	295q	365	700	-	810
10"	250	241	584	991	991	1000	320	360	450	700	-	1420
12"	300	289	673	1130	1130	1146	360	415	530	700	-	2195
14"	350	318	749	1257	1257	1276	410	490	630	700	-	2880
16"	400	362	826	1384	1384	1407	455	520	660	700	-	3995
18"	450	407	914	1537	1537	1559	600	550	-	-	-	6260
20"	500	420	984	1664	1664	1686	620	650	-	-	-	7550
24"	600	500	1168	1943	1943	1972	685	730	-	-	-	10800
26"	650	550	-	2050	2050	2080	780	790	-	-	-	13450
28"	700	590	-	2160	2160	2180	860	885	-	-	-	15900
30"	750	630	-	2270	2270	2300	940	965	-	-	-	18900

Class 2500 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
6"	150	133	483	914	914	927	265	330	405	700	-	794
8"	200	181	552	1022	1022	1038	350	395	490	700	-	1350
10"	250	226	673	1270	1270	1292	420	445	520	700	-	2096
12"	300	267	762	1422	1422	1445	395	465	540	700	-	3240

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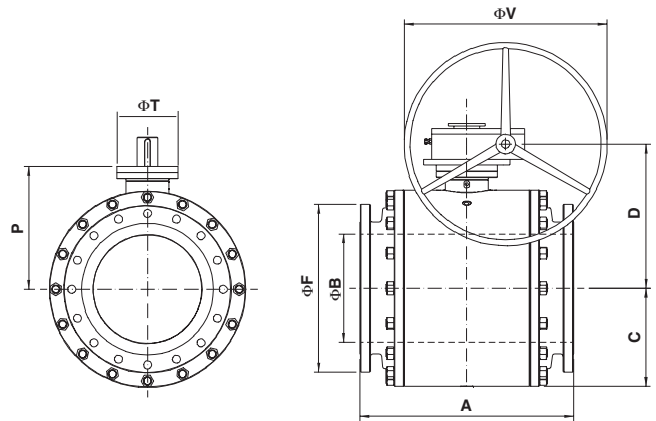


ABV

Series BT3

Side Entry Trunnion Ball Valves Reduced Bore

Dimensions (mm):



Class 150 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
8"x6"	200x150	152	343	457	521	470	175	210	240	350	-	208
10"x6"	250x150	152	406	533	559	546	175	210	240	350	-	270
10"x8"	250x200	203	406	533	559	546	220	250	300	350	-	310
12"x8"	300x200	203	483	610	635	622	220	250	300	350	-	396
12"x10"	300x250	254	483	610	635	622	265	285	345	350	-	520
14"x12"	350x300	305	533	686	762	699	285	315	370	500	-	615
16"x12"	400x300	305	597	762	838	775	285	315	370	500	-	710
18"x14"	450x350	337	635	864	914	876	330	400	460	700	-	980
20"x16"	500x400	387	699	914	991	927	360	420	480	700	-	1150

Class 300 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
8"x6"	200x150	152	381	502	521	518	175	210	240	350	-	242
10"x6"	250x150	152	445	568	559	584	175	210	240	350	-	295
10"x8"	250x200	203	445	568	559	584	220	250	300	350	-	483
12"x8"	300x200	203	521	648	635	664	220	250	300	350	-	530
12"x10"	300x250	254	521	648	635	664	265	285	345	450	-	632
14"x12"	350x300	305	584	762	762	778	285	315	370	700	-	810
16"x12"	400x300	305	648	838	838	854	285	315	370	700	-	950
18"x14"	450x350	337	711	914	914	930	330	400	460	700	-	1120
20"x16"	500x400	387	775	991	991	1010	360	430	490	700	-	1650

Class 600 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
8"x6"	200x150	152	419	660	660	664	190	220	250	350	-	305
10"x6"	250x150	152	508	787	787	791	190	220	250	350	-	420
10"x8"	250x200	203	508	787	787	791	230	270	340	500	-	568
12"x8"	300x200	203	559	838	838	841	230	270	340	500	-	697
12"x10"	300x250	254	559	838	838	841	280	300	365	700	-	795
14"x12"	350x300	305	603	889	889	892	300	340	395	700	-	1125
16"x12"	400x300	305	686	991	991	994	300	340	395	700	-	1330
18"x14"	450x350	337	743	1092	1092	1095	350	430	490	700	-	1410
20"x16"	500x400	387	813	1194	1194	1200	395	460	520	700	-	2030

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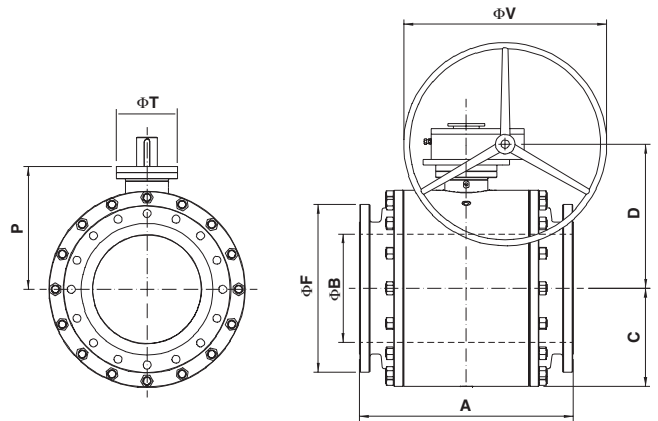


ABV

Series BT3

Side Entry Trunnion Ball Valves Reduced Bore

Dimensions (mm):



Class 900 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
8"x6"	200x150	152	470	737	737	740	195	220	280	500	-	440
10"x6"	250x150	152	546	838	838	841	195	220	280	500	-	565
10"x8"	250x200	203	546	838	838	841	235	250	320	700	-	688
12"x8"	300x200	203	610	965	965	968	235	250	320	700	-	996
12"x10"	300x250	254	610	965	965	968	310	380	365	700	-	1160
14"x12"	350x300	305	641	1029	1029	1038	340	395	500	700	-	1610
16"x12"	400x300	305	705	1130	1130	1140	340	395	500	700	-	1780
18"x14"	450x350	324	787	1219	1219	1232	380	440	550	700	-	2105

Class 1500 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
8"x6"	200x150	146	483	737	737	740	195	220	280	500	-	440
10"x6"	250x150	146	584	838	838	841	195	220	280	500	-	565
10"x8"	250x200	193	584	838	838	841	235	250	320	700	-	688
12"x8"	300x200	193	673	965	965	968	235	250	320	700	-	996
12"x10"	300x250	241	673	965	965	968	310	380	365	700	-	1160
14"x12"	350x300	289	749	1257	1257	1276	360	415	530	700	-	2530
16"x12"	400x300	289	826	1384	1384	1407	360	415	530	700	-	2810

Class 2500 LBS

NOMINAL SIZE		BORE	FLANGE	END TO END			OTHER DATA					
NS	DN	Φ B	Φ F	A-RF	A-WE	A-RJ	C	P	D	ΦV	ΦT	Weight (kg)
8"x6"	200x150	133	552	1022	1022	1038	265	330	405	700	-	1015
10"x6"	250x150	133	673	1270	1270	1292	265	330	405	700	-	1350
10"x8"	250x200	181	673	1270	1270	1292	350	395	490	700	-	1640
12"x8"	300x200	181	762	1422	1422	1445	350	395	490	700	-	2200
12"x10"	300x250	226	762	1422	1422	1445	420	445	520	700	-	2498

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