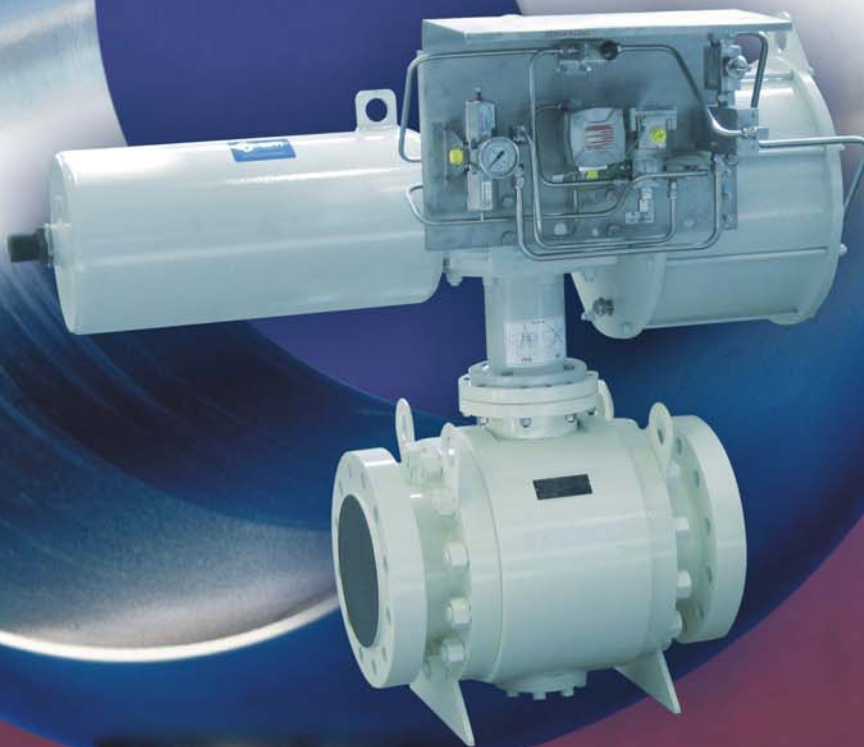




API 6D
Trunnion-mounted ball valves
Floating ball valves
Bolted body side-entry



API 6D PRESSURE RANGE: ASME 150-2500

COMPANY PROFILE

TCX Engineering Solution Cooperation is a customer focused organization based on “Value-added” and “Quality Service” principles. Achieving long term partnership with our customers and being their supplier of choice is our prime mission. We research,development and Manufacture kinds of branded Valves, Actuators, Automatic various flow control accessories.

Our Product Range includes:

Floating Casting&Forged Ball Valves

Trunnion Mounted Casting&Forged Ball Valves

Cryogenic Ball Valves

High Temperature Ball Valves

Gate Valves (Metal and Resilient seated) API and Non API applications,

Knife Gate Valves

Globe Valves

Check Valves

Y-Strainers

And a Variety of Control Valves e.g. Pressure reducing, Pressure sustaining, Slow check valve etc.

Our products conform to high quality standards and find extensive uses in:

Oil and Gas

Water and Sewage

Chemicals

Paper and pulp

Irrigation

Desalination and Power plants, and variety of other industrial uses

We can supply all types of valves with following material configurations:

Carbon Steel, Stainless Steel SS304, SS304L, SS316, SS316L, Duplex Stainless Steel, Super Duplex,

Alloy, Monel and Inconel with variety of seating and stem configurations.

We are a flexible and agile corporation that is able to adapt to the varying customer requirements.

CONTENTS

Trunnion Ball Valve-----	1
Trunnion Ball Valve Main Features-----	2
Trunnion Ball Valve Main Parts -----	6
Trunnion Ball Valve Dimensions and Weights ANSI Class 150 -----	8
Trunnion Ball Valve Dimensions and Weights ANSI Class 300-----	9
Trunnion Ball Valve Dimensions and Weights ANSI Class 600-----	10
Trunnion Ball Valve Dimensions and Weights ANSI Class 900-----	11
Trunnion Ball Valve Dimensions and Weights ANSI Class 1500-----	12
Trunnion Ball Valve Dimensions and Weights ANSI Class 2500-----	13
Floating Ball Valve Main Parts and Design Features-----	14
Floating Ball Valve Dimensions and Weights ANSI Class 150/300-----	15
Floating Ball Valve Dimensions and Weights ANSI Class 600/2500-----	16
Seal Material Data-----	19
Material Pressure Temperature Chart-----	20

PRODUCT EXHIBITION



Ball Rubbing



Cycle testing on an 8" (20 mm) class 600



Productions ready to ship



Extended stem for buried service



Cryogenic testing on an 3" class150

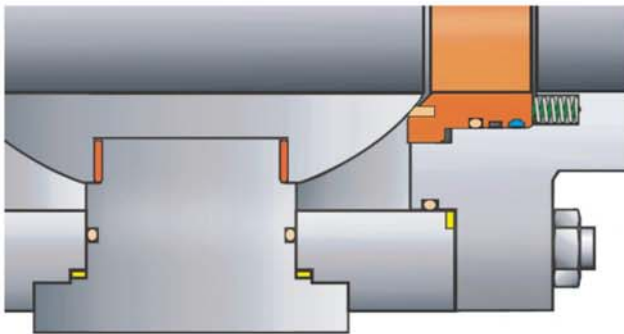


Production inventory

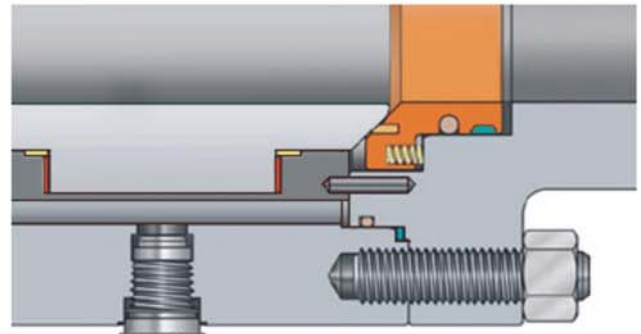
TCX Trunnion-Mounted Ball Valve Main Features

Trunnion Mounted Ball Design:

The ball is fixed by trunnion or trunnion support, which ensures the central positioning under the highest working pressure and permits ease of operation. Trunnion or trunnion support together with DU bearings adsorb the side load created by the pressure acting on the ball. The ball and stem are independent with each other to minimize the effect of the side thrust generated by the pressure acting on the ball.



Trunnion Design



Trunnion Support Design

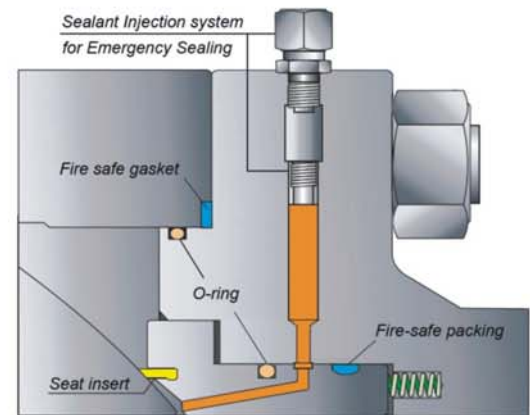
Stem/Seat Sealing Design

Two set of O-ring plus fire safe packing on the stem /metal seat efficiently prevent leakage.

Body Sealing Design

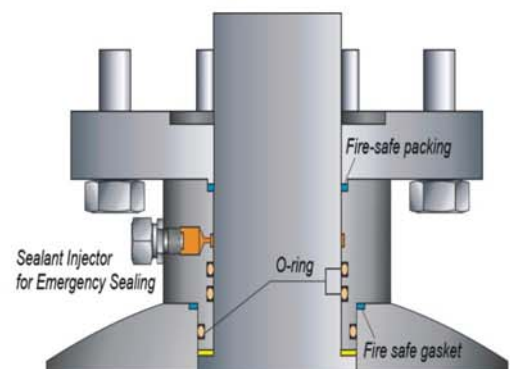
The double sealing action of O-rings and graphite gaskets design ensures zero leakage and the Fire Safe feature.

Lip-seal rings and/or graphite gaskets can be used for special service on request.

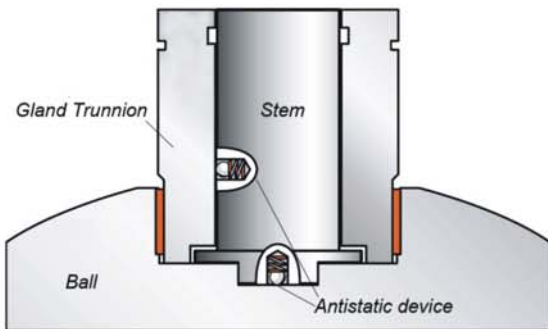


Emergency Sealant Injection Design

The valves equipped with sealant injection located at stem and seats area. The injection is integrated with check valve to provide backup sealing, When leakage occurs at the seat and gland trunnion due to damage, leaks from the seal can be temporarily stopped by injection of sealant into the secondary seal system.



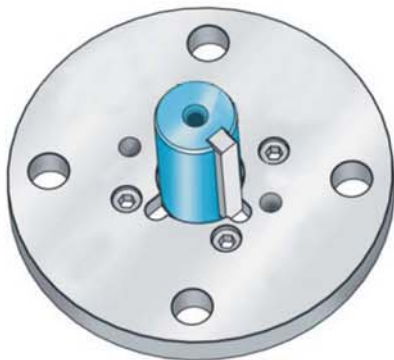
TCX Trunnion-Mounted Ball Valve Main Features



Blow-out Proof Stem & Anti-Static Design

The stem is made separately from the ball with integral T-type round shoulder, retained by gland trunnion, which ensures total safety and integrity.

Grounding device are supplied for positive anti-static between ball/stem and body. This antistatic device is a standard feature on TCX ball valve.



Ball Seat Alignment Design

Mechanical stops are equipped on valves to ensure the ball never to be over rotated.

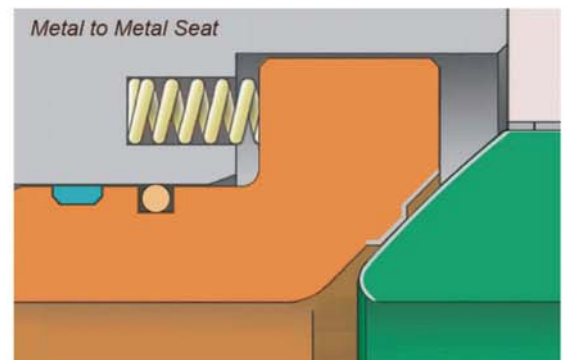
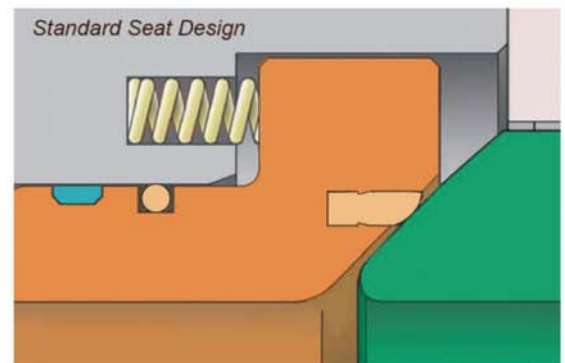
Seat Ring Design

The seat rings are floating and free to move along the valve axis, At low pressure, the seat tight sealing is ensured by the preload of the springs acting on the seat rings. Along with the pressure increasing , the process medium pressure pushes the seat rings against the ball to provide additional load for tight sealing.

Seat Design

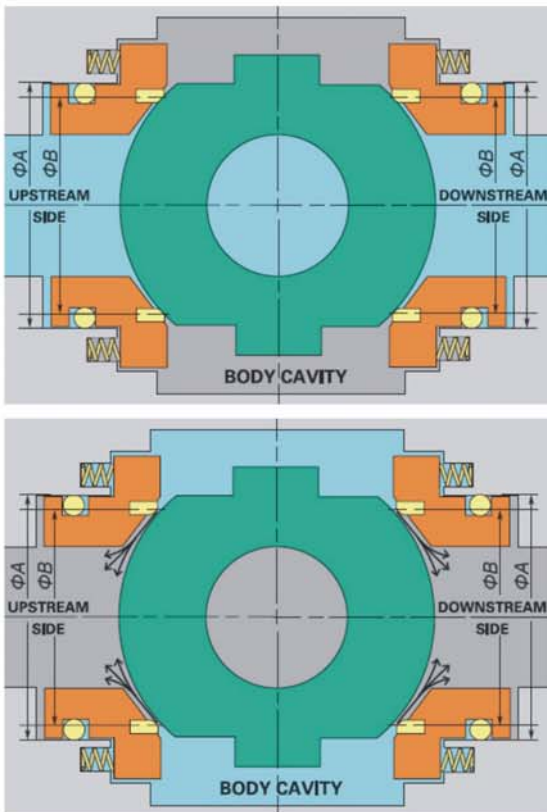
For standard services, sealing is guaranteed by a thermoplastic insert in the metal ring. The seat groove has been developed with a barb to ensure the seat insert never to be thrust out under working condition. This design is recommended for very high pressure (up to 2500 class) and for a wide temperature range (from -150 °C up to 250 °C).

For high temperature, high pressure and high wear resistant services, sealing is guaranteed by metal to metal seat by means of Tungsten Carbide metal-spry coating on ball and seal rings.



TCX Trunnion-Mounted Ball Valve Main Features

Singel piston effect



Double Block & Bleed Design

The floating seats seal, both upstream and downstream in the same time when the ball is in closed position, double block and bleed procedures can be performed. With the valve under pressure, the body cavity may be vented or drained to the atmosphere through the bleed valve.

Standard

Single piston effect seats (Self-relieving seats)

With no or very low line pressure, sealing between the seats and ball is achieved by seat springs. With high line pressure, the line pressure, both upstream and downstream, in conjunction with the spring load, forces the upstream seat ring against the ball, which results in tighter sealing.

Self-relieving seat is designed to prevent excessive pressure buildup within the valve by automatically relieving when body cavity pressure exceeds the spring and line pressure on the seats.

Optional 1

Double piston effect seats

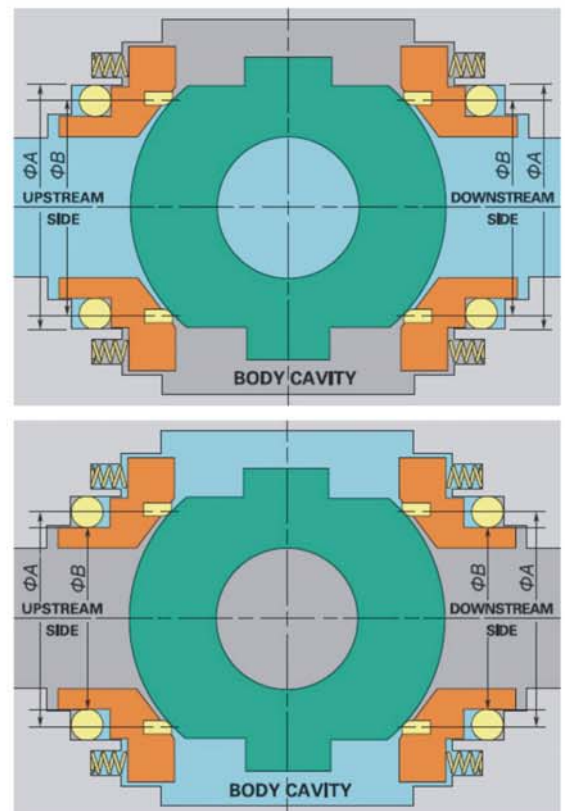
Line pressure, both upstream and downstream as well as in the body cavity, creates a resultant thrust that pushes the seat rings towards the ball. In this way the valve provides a double sealing barrier towards the pipeline. If the upstream seat is damaged and leaks, the pressure in the body cavity acts on the downstream seat sealing tightly against the ball. Valves with double piston effect seat rings require a relief valve to reduce the build-up of overpressure in the body cavity.

Optional 2

Double piston effect seats

That is a standard seat design used for upstream side and a double piston effect seats design used for downstream. The advantage is it can reach double piston effect seats design function without cavity pressure relief device to saves the cost, meanwhile only need a little care to install valve per flow direction arrow.

Double piston effect



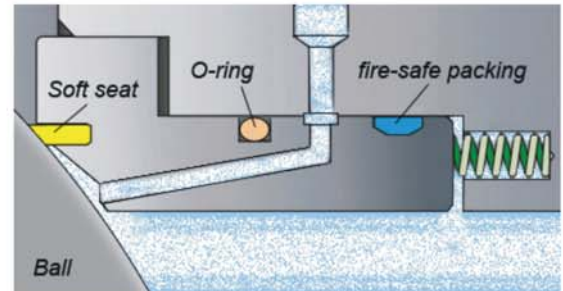
TCX Trunnion-Mounted Ball Valve Prototype Fire Testing

Fire safe Design

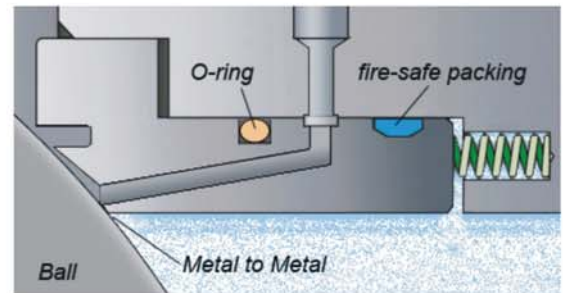
Fire safe is standard desing on all TCX ball valves.
When fire burned out the primary O-ring and seat insert,
the secondary seat fire-safe packing graphite seal ,
And seat ring & ball metal to metal contact preloaded by spring

TCX fire safe design ball valve is complete with metal-to-metal sealing elements. It is considered INHERENTLY firesafe by virtue of the fact that its performance does not change during firesafe simulation tests.

Tests have been carried out in accordance with the most stringent international firesafe standard such as API 607 part4, These tests confirm that the valves performance conforms to the standards and does not vary as a result of the fire. The ball valves tested were ZERO LEAKAGE before, during and after the fire test.



Before Fire



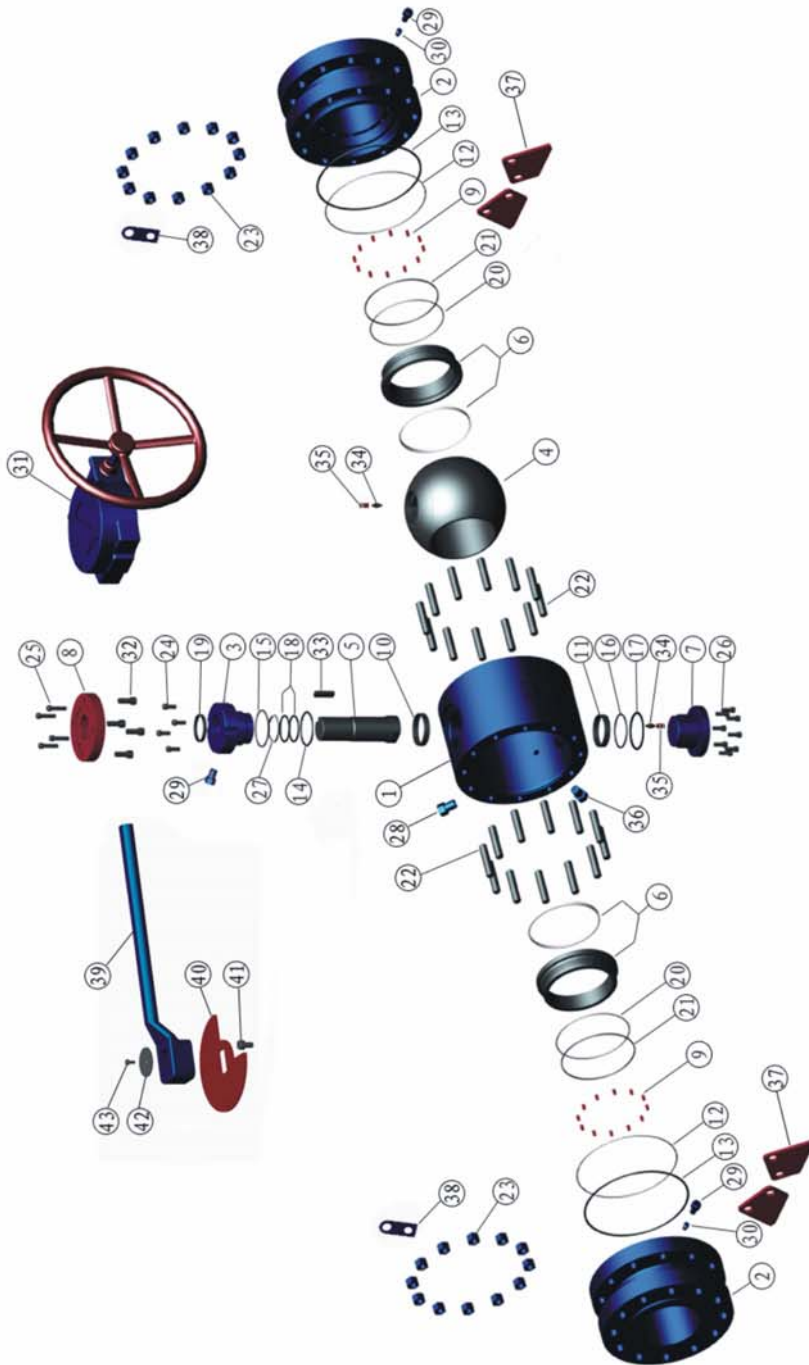
After Fire



TCX Trunnion-Mounted Ball Valve Exploded View

TCX Trunnion-Mounted Ball Valve

2" - 4" Class 600, 900, 1500 and 2500 • 3" - 12" Class 150 and Class 300

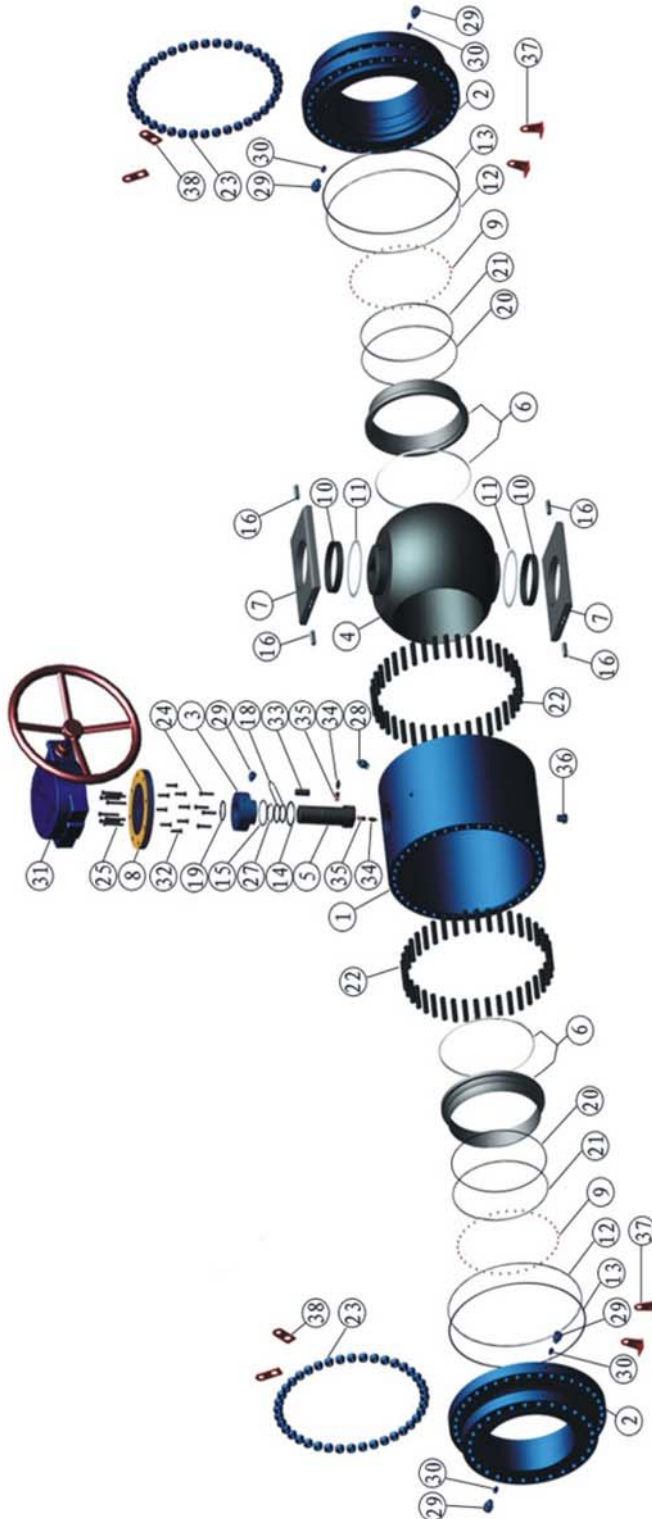


No.	Description
1	Body
2	Closure
3	Trunnion gland
4	Ball
5	Stem
6	Seat Ring Sub Assembly
7	Trunnion
8	Top Cover
9	Seat Spring
10	Stem Bearing
11	Trunnion Bearing
12	Closure Seal
13	Closure Sub-Seal
14	Trunnion gland Seal
15	Trunnion gland Sub-Seal
16	Trunnion Seal
17	Trunnion Sub-Seal
18	Stem Seal
19	Stem Sub-Seal
20	Seat Seal
21	Seat Sub-Seal
22	Closure Studs
23	Closure Nuts
24	Trunnion gland Screw
25	Top Cover Screw
26	Trunnion Screw
27	Thrust Bearing-Stem
28	Bleed Valve
29	Injection Fitting
30	Check Valve
31	G.O.P
32	G.O.P Screw
33	Stem Key
34	Grounding Plunge
35	Grounding Spring
36	Drain Plug
37	Support Foot
38	Lifting lug
39	Lever
40	Stop Plate
41	Stop Plate Screw
42	Retainer
43	Lever Screw

TCX Trunnion-Mounted Ball Valve Exploded View

TCX Trunnion-Mounted Ball Valve

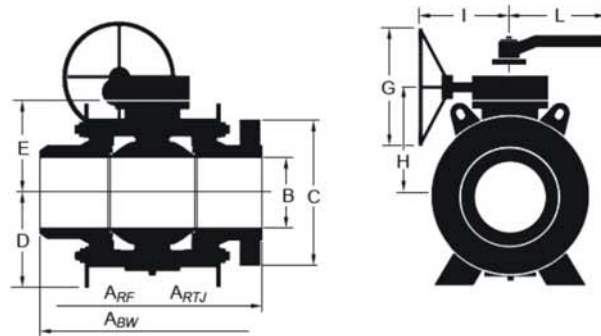
14" -36" Class 150,300,600,900 and 1500" 6-12" Class 900,1500 and 2500



No.	Description
1	Body
2	Closure
3	Trunnion gland
4	Ball
5	Stem
6	Seat Ring Sub Assembly
7	Trunnion Support
8	Top Cover
9	Seat Spring
10	Trunnion Bearing
11	Thrust Bearing-Ball
12	Closure Seal
13	Closure Sub-Seal
14	Trunnion gland Seal
15	Trunnion gland Sub-Seal
16	Trunnion Alignment Pin
18	Stem Seal
19	Stem Sub-Seal
20	Seat Seal
21	Seat Sub-Seal
22	Closure Studs
23	Closure Nuts
24	Trunnion gland Screw
25	Top Cover Screw
27	Thrust Bearing-Stem
28	Bleed Valve
29	Injection Fitting
30	Check Valve
31	G.O.P
32	G.O.P Screw
33	Stem Key
34	Grounding Plunge
35	Grounding Spring
36	Drain Plug
37	Support Foot
38	Lifting lug

TCX Trunnion-Mounted Ball Valve Main Dimensions

Trunnion-Mounted Ball Valve 2"-36" Class 150

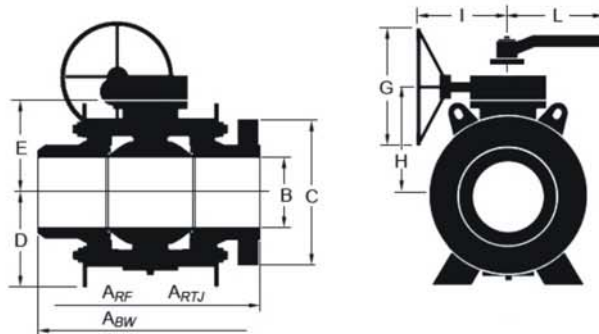


Size (inch)	ARF	ARTJ	ABW	B	C	D	E	G	H	I	L	Weight(Kg)	
	mm											FL	BW
2	178	191	216	51X51	152	112	108	---	---	---	220	20	17
3X2	203	216	283	76X51	191	112	108	---	---	---	220	24	20
3	203	216	283	76X76	191	136	153	---	---	---	380	37	34
4X3	229	241	305	102X76	229	136	153	---	---	---	380	44	40
4	229	241	305	102X102	229	151	190	200	227	230	450	60	55
6X4	394	406	457	152X102	279	151	190	200	227	230	450	80	75
6	394	406	457	152X152	279	183	230	400	269	327		165	155
8X6	457	470	521	203X152	343	183	230	400	269	327		184	173
8	457	470	521	203X203	343	261	269	400	308	327		330	310
10X8	533	546	559	254X203	406	261	269	400	308	327		360	340
10	533	546	559	254X254	406	325	308	500	372	360		554	527
12X10	610	622	635	305X254	483	325	308	500	372	360		625	585
12	610	622	635	305X305	483	375	355	600	419	418		803	748
14X12	686	698	762	337X305	535	375	355	600	419	418		870	820
14	686	698	762	337X337	535	382	383	700	451	575		950	900
16X14	762	775	838	387X337	595	382	383	700	451	575		1010	960
16	762	775	838	387X387	595	400	428	700	496	575		1385	1320
18X16	864	876	914	438X387	635	400	428	700	496	575		1456	1390
18	864	876	914	438X438	635	486	481	700	560	575		1900	1800
20X18	914	927	991	489X438	700	486	481	700	560	575		1965	1865
20	914	927	991	489X489	700	500	517	700	596	575		2265	2160
24X20	1067	1079	1143	591X489	815	500	517	700	596	575		2420	2330
24	1067	1079	1143	591X591	815	579	595	700	682	579		3700	3590
30X24	1295	---	1397	737X591	984	579	595	700	682	579		4200	4070
30	1295	---	1397	737X737	984	710	751	700	901	670		5900	5790
36X30	1524	---	1727	876X737	1168	710	751	700	901	670		6800	6700
36	1524	---	1727	876X737	1168	810	864	700	1014	670		9400	9300

NOTES: Dimension "D" includes trunnion screws, drain plug and support brackets. Other sizes are available upon request.

TCX Trunnion-Mounted Ball Valve Main Dimensions

Trunnion-Mounted Ball Valve 2"-36" Class 300

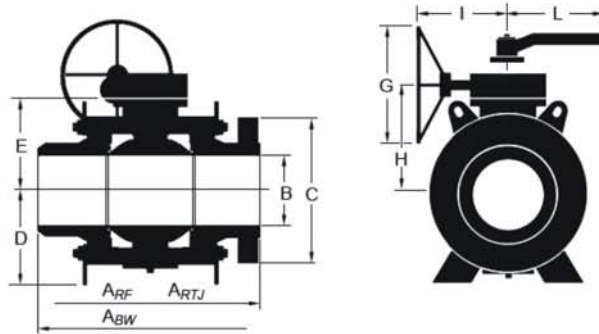


Size (inch)	ARF	ARTJ	ABW	B	C	D	E	G	H	I	L	Weight(Kg)	
	mm											FL	BW
2	216	232	216	51X51	165	112	108	---	---	---	220	25	20
3X2	283	298	283	76X51	210	112	108	---	---	---	220	34	25
3	283	298	283	76X76	210	136	153	---	---	---	380	46	38
4X3	305	321	305	102X76	254	136	153	---	---	---	380	56	45
4	305	321	305	102X102	254	151	190	200	227	230	450	88	75
6X4	403	419	457	152X102	318	151	190	200	227	230	450	116	85
6	403	419	457	152X152	318	183	230	400	269	327	N/A	184	160
8X6	502	517	521	203X152	381	183	230	400	269	327	N/A	220	190
8	502	517	521	203X203	381	290	272	500	327	360	N/A	368	320
10X8	568	584	559	254X203	445	290	272	500	327	360	N/A	447	395
10	568	584	559	254X254	445	340	323	500	387	360	N/A	590	510
12X10	648	664	635	305X254	520	340	323	500	387	360	N/A	656	575
12	648	664	635	305X305	520	404	363	600	427	418	N/A	876	805
14X12	762	778	762	337X305	585	404	363	600	427	418	N/A	977	890
14	762	778	762	337X337	585	376	388	700	456	575	N/A	1170	1060
16X14	838	854	838	387X337	650	376	388	700	456	575	N/A	1324	1130
16	838	854	838	387X387	650	416	431	700	499	575	N/A	1496	1230
18X16	914	930	914	438X387	710	416	431	700	499	575	N/A	1585	1350
18	914	930	914	438X438	710	487	490	700	569	575	N/A	2230	1960
20X18	991	1010	991	489X438	775	487	490	700	569	575	N/A	2360	2080
20	991	1010	991	489X489	775	466	515	700	602	579	N/A	2670	2370
24X20	1143	1165	1143	591X489	915	466	515	700	602	579	N/A	3250	2880
24	1143	1165	1143	591X591	915	596	603	700	721	670	N/A	4300	3800
30X24	1397	1422	1397	737X591	1092	596	603	700	721	670	N/A	6200	5500
30	1397	1422	1397	737X737	1092	715	756	700	906	670	N/A	6700	5960
36X30	1727	1756	1727	876X737	1270	715	756	700	906	670	N/A	7900	7100
36	1727	1756	1727	876X737	1270	815	869	700	1019	690	N/A	9800	8900

NOTES: Dimension "D" includes trunnion screws, drain plug and support brackets. Other sizes are available upon request.

TCX Trunnion-Mounted Ball Valve Main Dimensions

Trunnion-Mounted Ball Valve 2"-36" Class 600

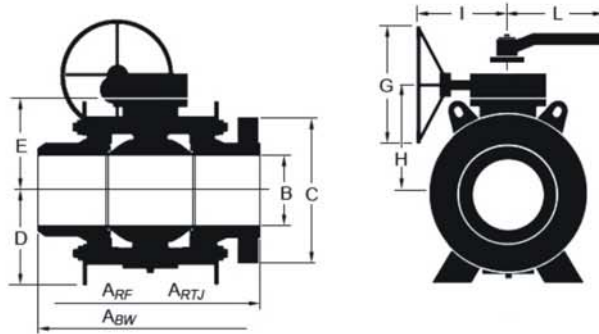


Size (inch)	ARF	ARTJ	ABW	B	C	D	E	G	H	I	L	Weight(Kg)	
	mm											FL	BW
2	292	295	292	51X51	165	98	155	---	---	---	575	38	30
3X2	356	359	356	76X51	210	98	155	---	---	---	575	49	35
3	356	359	356	76X76	210	123	166	200	203	230	700	76	65
4X3	432	435	432	102X76	273	123	166	200	203	230	700	100	80
4	432	435	432	102X102	273	149	197	400	236	327	850	130	105
6X4	559	562	559	152X102	356	149	197	400	236	327	850	178	130
6	559	562	559	152X152	356	183	230	400	269	327		267	210
8X6	660	664	660	203X152	419	183	230	400	269	327		328	270
8	660	664	660	203X203	419	284	274	600	326	377		474	410
10X8	787	791	787	254X203	510	284	274	600	326	377		580	490
10	787	791	787	254X254	510	360	329	600	393	418		810	660
12X10	838	841	838	305X254	560	360	329	600	393	418		884	740
12	838	841	838	305X305	560	362	378	700	446	545		1267	1050
14X12	889	892	889	337X305	605	362	378	700	446	545		1427	1240
14	889	892	889	337X337	605	394	391	700	470	575		1370	1190
16X14	991	994	991	387X337	685	394	391	700	470	575		1535	1340
16	991	994	991	387X387	685	395	435	700	514	575		1918	1640
18X16	1092	1095	1092	438X387	745	395	435	700	514	575		2120	1820
18	1092	1095	1092	438X438	745	499	496	700	583	579		2820	2460
20X18	1194	1200	1194	489X438	815	499	496	700	583	579		3035	2660
20	1194	1200	1194	489X489	815	544	541	700	659	670		3750	3300
24X20	1397	1406	1397	591X489	940	544	541	700	659	670		4270	3940
24	1397	1406	1397	591X591	940	596	604	700	754	690		6250	5760
30X24	1651	1664	1651	737X591	1130	596	604	700	754	690		7600	7100
30	1651	1664	1651	737X737	1130	744	766	700	916	690		9100	8300
36X30	2083	2099	2083	876X737	1314	744	766	700	916	690		10300	9500
36	2083	2099	2083	876X737	1314	850	889	700	1039	830		12900	11500

NOTES: Dimension "D" includes trunnion screws, drain plug and support brackets. Other sizes are available upon request.

TCX Trunnion-Mounted Ball Valve Main Dimensions

Trunnion-Mounted Ball Valve 2"-24" Class 900

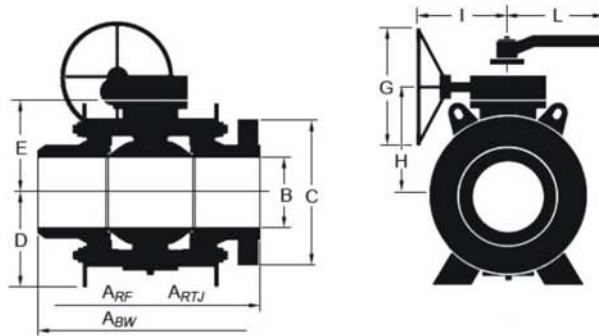


Size (inch)	ARF	ARTJ	ABW	B	C	D	E	G	H	I	L	Weight(Kg)	
	mm											FL	BW
2	368	371	368	51X51	216	109	149	200	186	230	575	52	52
3X2	381	384	381	76X51	241	109	149	200	186	230	575	60	60
3	381	384	381	76X76	241	139	179	200	216	230	700	98	98
4X3	457	460	457	102X76	292	139	179	200	216	230	700	120	120
4	457	460	457	102X102	292	163	216	400	255	327	850	175	175
6X4	610	613	610	152X102	381	163	216	400	255	327	850	245	245
6	610	613	610	152X152	381	180	255	600	307	377		355	355
8X6	737	740	737	203X152	470	180	255	600	307	377		440	440
8	737	740	737	203X203	470	307	296	700	360	545		630	630
10X8	838	841	838	254X203	545	307	296	700	360	545		740	740
10	838	841	838	254X254	545	356	342	700	410	575		970	970
12X10	965	968	965	305X254	610	356	342	700	410	575		1125	1125
12	965	968	965	305X305	610	391	410	700	489	575		1390	1390
14X12	1029	1038	1029	324X305	641	391	410	700	489	575		1490	1490
14	1029	1038	1029	324X324	641	408	395	700	474	575		1650	1650
16X14	1130	1140	1130	375X324	705	408	395	700	474	575		1830	1830
16	1130	1140	1130	375X375	705	465	453	700	540	579		2300	2300
18X16	1219	1232	1219	425X375	787	465	453	700	540	579		2580	2580
18	1219	1232	1219	425X425	787	510	513	700	631	670		3900	3900
20X18	1321	1333	1321	473X425	855	510	513	700	631	670		4200	4200
20	1321	1333	1321	473X473	855	560	551	700	660	670		5100	5100
24X20	1549	1568	1549	572X473	1041	560	551	700	660	670		6100	6100
24	1549	1568	1549	572X572	1041	620	630	700	780	690		7800	7800

NOTES: Dimension "D" includes trunnion screws, drain plug and support brackets. Other sizes are available upon request.

TCX Trunnion-Mounted Ball Valve Main Dimensions

Trunnion-Mounted Ball Valve 2" -16" Class 1500

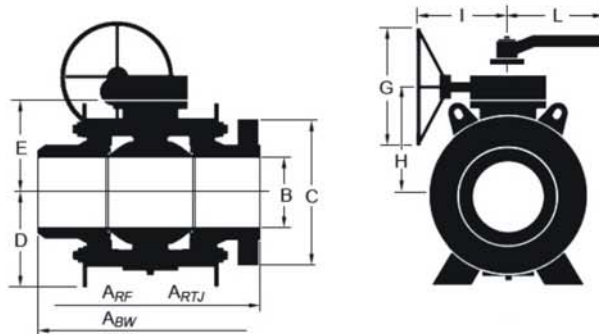


Size (inch)	ARF	ARTJ	ABW	B	C	D	E	G	H	I	L	Weight(Kg)	
	mm											FL	BW
2	368	372	368	51X51	216	129	178	200	215	230	575	77	50
3X2	470	473	470	76X51	267	129	178	200	215	230	575	100	90
3	470	473	470	76X76	267	175	219	400	258	327		175	135
4X3	546	549	546	102X76	311	175	219	400	258	327		203	170
4	546	549	546	102X102	311	187	235	500	290	360		282	190
6X4	705	711	705	146X102	394	187	235	500	290	360		386	320
6	705	711	705	146X146	394	210	288	700	340	545		580	440
8X6	832	841	832	194X146	483	210	288	700	340	545		706	480
8	832	841	832	194X194	483	349	347	700	417	575		1055	740
10X8	991	1000	991	241X194	584	349	347	700	417	575		1285	840
10	991	1000	991	241X241	584	374	397	700	476	575		1350	1000
12X10	1130	1146	1130	289X241	673	374	397	700	476	575		1950	1370
12	1130	1146	1130	289X289	673	400	480	700	559	575		2830	1960
14X12	1257	1276	1257	317X289	750	400	480	700	559	575		3120	2600
14	1257	1276	1257	317X317	750	420	480	700	598	670		3350	2800
16X14	1384	1406	1384	362X317	826	420	480	700	598	670		3550	3000
16	1384	1406	1384	362X362	826	560	503	700	621	670		4500	3800

NOTES: Dimension "D" includes trunnion screws, drain plug and support brackets. Other sizes are available upon request.

TCX Trunnion-Mounted Ball Valve Main Dimensions

Trunnion-Mounted Ball Valve 2" -12" Class 2500



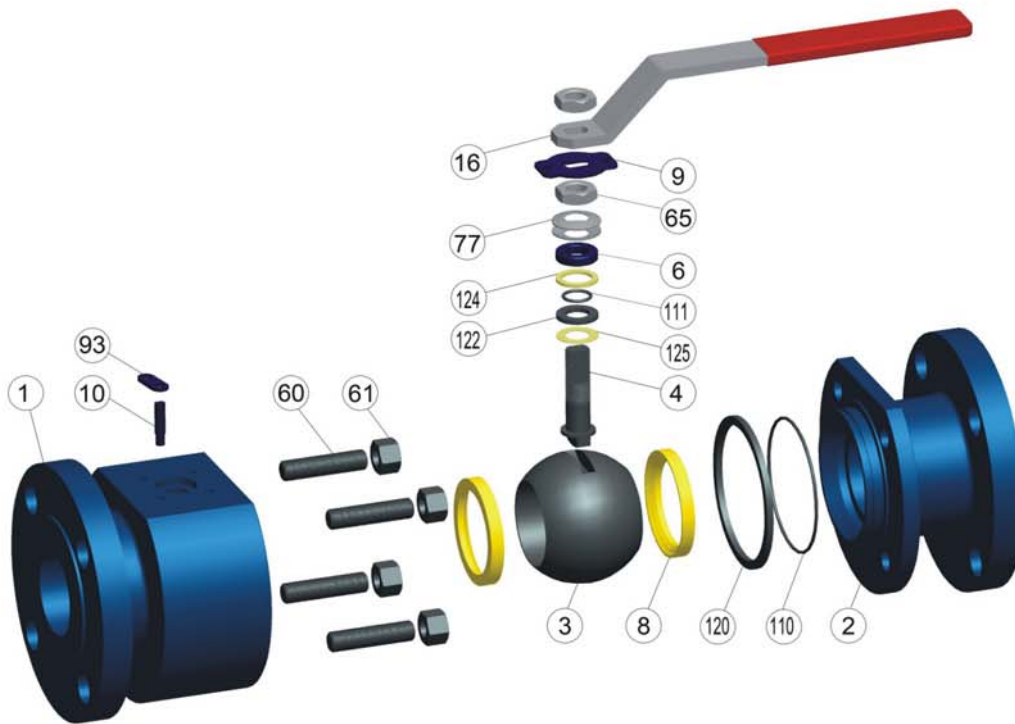
Size (inch)	ARF	ARTJ	ABW	B	C	D	E	G	H	I	L	Weight(Kg)	
	mm											FL	BW
2	451	454	451	44X44	235	160	175	400	210	327	750	101	90
3X2	578	584	578	63X44	305	160	175	400	210	327	750	182	165
3	578	584	578	63X63	305	200	220	500	230	360	900	235	215
4X3	673	683	673	89X63	355	200	220	500	230	360	900	308	285
4	673	683	673	89X89	355	260	265	500	280	360		410	380
6X4	914	927	914	133X89	485	260	265	500	280	360		580	540
6	914	927	914	133X133	485	295	300	600	315	490		860	820
8X6	1022	1038	1022	181X133	550	295	300	600	315	490		1180	1150
8	1022	1038	1022	181X181	550	380	410	600	425	490		1475	1440
10X8	1270	1292	1270	226X181	675	380	410	600	425	490		1745	1700
10	1270	1292	1270	226X226	675	450	485	600	500	585		2205	2155
12X10	1422	1445	1422	267X226	760	450	485	600	500	585		2590	2535
12	1422	1445	1422	267X267	760	490	535	600	550	585		3320	3260

NOTES: Dimension "D" includes trunnion screws, drain plug and support brackets. Other sizes are available upon request.

TCX Floating Ball Valve Main Features

TCX Floating Ball Valves

The Series FFB Two-Piece, Floating Ball Valve 1/2"-6" ANSI Class 150-600, 1/2"-2" ANSI Class 900-1500, 1/2"-1" ANSI Class 2500 In Full and Reduced Port



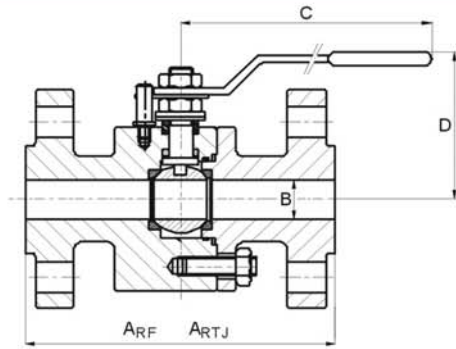
NO	Description
1	Body
2	Closure
3	ball
4	stem
6	Packing Gland
8	Seat
9	Stop plate
10	Stop pin
16	Lever
60	Body studs
61	Body Nuts
65	Stem Nut
77	Spring Washer
93	Locking device
110	Body O-ring
111	Stem O-ring
120	Body Gasket
122	Stem Gasket
124	O-ring Washer
125	Gasket Washer

Design Features

TCX standard Floating ball valves are manufactured in two pieces bolted body. Ball valves could be supplied full or reduced bore, designed for maximum rigidity against pipeline thrust, made from forged components or barstock. Bolted body constructions allow easy service and maintenance operation on site. Pressure rating is from class ANSI 150 up to ANSI 2500 Lbs. Valves are usually supplied with lever operator, with gear box or bare stem on customer request. All standard Floating ball valves have below Features:

- Locking device: Valve is equipped with an integral locking device to secure line flow.
- Blow-out Proof Stem: The stem is made separately from the ball with integral T-type round shoulder, which ensures total safety and integrity.
- Anti-Static Design: Grounding device are supplied for positive anti-static between ball/stem and body.
- ISO 5211 Mount Plate: Simplifies the installation of actuators with standard connections.
- Emission-free Gasket: The primary gasket is emission free graphite to eliminate leakage.

TCX Floating Ball Valve Main Dimensions



Floating Ball Valve 1/2" - 6" Class 300

Size (inch)	ARF	ARTJ	ABW	B	C	D	Weight
	mm						Kg
1/2"	140		140	14X14	145	82	4
3/4" x 1/2"	153		153	20X14	145	82	5
3/4"	153		153	20X20	170	87	6
1" x 3/4"	165		165	25X20	170	87	7
1"	165		165	25X25	170	92	10
1 1/4" x 1"	178		178	32X25	170	92	11
1 1/4"	178		178	32X32	270	105	13
1 1/2" x 1 1/4"	191		191	38X32	270	105	16
1 1/2"	191		191	38X38	270	108	17
2" x 1 1/2"	216		216	50X38	270	108	19
2"	216		216	50X50	270	119	22
2 1/2" x 2"	241		241	65X50	270	119	25
2 1/2"	241		241	65X65	380	150	28
3" x 2"	283		283	76X50	270	119	30
3"	283		283	76X76	380	163	38
4" x 3"	305		305	102X76	380	163	52
4"	305		305	102X102	470	187	78
6" x 4"	403		457	150X102	470	187	100
6"	403		457	150X150	700	210	148

Floating Ball Valve 1/2" - 6" Class 150

Size (inch)	ARF	ARTJ	ABW	B	C	D	Weight
	mm						Kg
1/2"	108		140	14X14	145	82	2.5
3/4" x 1/2"	117		153	20X14	145	82	3
3/4"	117		153	20X20	170	87	4
1" x 3/4"	127		165	25X20	170	87	5
1"	127		165	25X25	170	92	6
1 1/4" x 1"	140		178	32X25	170	92	8
1 1/4"	140		178	32X32	270	105	10
1 1/2" x 1 1/4"	165		191	38X32	270	105	11
1 1/2"	165		191	38X38	270	108	12
2" x 1 1/2"	178		216	50X38	270	108	13
2"	178		216	50X50	270	119	15
2 1/2" x 2"	191		242	65X50	270	119	17
2 1/2"	191		242	65X65	380	150	19
3" x 2"	203		283	76X50	270	119	20
3"	203		283	76X76	380	163	22
4" x 3"	229		305	102X76	380	163	42
4"	229		305	102X102	470	187	45
6" x 4"	394		457	150X102	470	187	80
6"	394		457	150X150	700	210	105

Floating Ball Valve 1/2" - 2" Class 900/1500

Size (inch)	ARF	ARTJ	ABW	B	C	D	Weight
	mm						Kg
1/2"	216	216	216	14X14	145	82	10
3/4" x 1/2"	229	229	229	20X14	145	82	11
3/4"	229	229	229	20X20	170	87	14
1" x 3/4"	254	254	254	25X20	170	87	15
1"	254	254	254	25X25	170	92	17
1 1/4" x 1"	305	305	305	38X25	170	92	23
1 1/2"	305	305	305	38X38	270	108	28
2" x 1 1/2"	368	371	368	50X38	270	108	30
2"	368	371	368	50X50	270	119	34

Floating Ball Valve 1/2" - 6" Class 600

Size (inch)	ARF	ARTJ	ABW	B	C	D	Weight
	mm						Kg
1/2"	165	165	165	14X14	145	82	5
3/4" x 1/2"	191	191	191	20X14	145	82	7
3/4"	191	191	191	20X20	170	87	7
1" x 3/4"	216	216	216	25X20	170	87	9
1"	216	216	216	25X25	170	92	10
1 1/4" x 1"	242	242	242	38X25	170	92	15
1 1/2"	242	242	242	38X38	270	108	18
2" x 1 1/2"	292	295	292	50X38	270	108	20
2"	292	295	292	50X50	270	119	22
3" x 2"	356	359	356	76X50	270	119	33
3"	356	359	356	76X76	380	163	38
4" x 3"	432	435	432	102X76	380	163	75
4"	432	435	432	102X102	470	187	78
6" x 4"	559	562	559	150X102	470	187	150

Floating Ball Valve 1/2" - 1" Class 2500

Size (inch)	ARTJ	B	C	D	Weight
	mm				Kg
1/2"	264	14X14	250	90	10
3/4" x 1/2"	273	20X14	250	90	11
3/4"	273	20X20	276	95	14
1" x 3/4"	308	25X20	276	95	15
1"	308	25X25	276	100	17
1 1/2" x 1"	387	38X25	276	100	23



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