



Bolted Three Piece Forged Steel
TRUNNION BALL VALVE





a WOLSELEY company

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TECHNICAL EXPERTISE, QUALITY AND SERVICE WHEN AND WHERE YOU NEED IT

Industrial Valves

Meridian† is a leader in valve supply in Canada and has achieved exclusive, master or preferred distributor status with manufacturers of recognized, high quality products. Meridian is ISO 9001:2000 certified and stocks an industry leading inventory of both commodity and specific application valves in a wide range of sizes, materials and pressure classes.



Valve Innovation

Meridian works in partnership with its customers and manufacturers to develop unique solutions to problems. A combination of experience, resources and broad technical knowledge gives Meridian an advantage reflected in our unique product offering and strong customer relationships.

Examples include Meridian's Pig Valve and Back Pressure Valve, Low-bleed wellhead pressure control package and BTE Baker Choke package.

Specific Application Valves

Meridian also stocks valves designed with specific features and proper metallurgy to provide proven solutions for tough applications. Applications include: molten sulphur, acid gas/tail gas service, pulp mill liquor service, pump and compressor discharge, high temperature/abrasive applications, pipeline pigging, cryogenic applications, high pressure steam and hot water applications, autoclave operations and other difficult services.

Meridian™ Extended Warranty

Meridian stands behind the products it sells and provides an industry leading warranty of 40 months from date of shipment or 24 months from the date of start-up (whichever is sooner) for all Meridian™ brand flanged or buttweld trunnions and floater ball valves.

† Wolseley Industrial Products Group Inc. o/a Meridian

MERIDIAN™ TRUNNION MOUNTED BALL VALVE MANUFACTURING RANGE

(Available in full and regular port)

Size	ANSI 150	ANSI 300	ANSI 600	ANSI 900	ANSI 1500	ANSI 2500
2	●	●	●	●	●	●
3	●	●	●	●	●	●
4	●	●	●	●	●	●
6	●	●	●	●	●	●
8	●	●	●	●	●	●
10	●	●	●	●	●	●
12	●	●	●	●	●	●
14	●	●	●	●	●	●
16	●	●	●	●	●	●
18	●	●	●	●	●	●
20	●	●	●	●	●	●
24	●	●	●	●	●	●
30	●	●	●	●	●	●
36	●	●	●	●	●	●
42	●	●	●	●	●	●
48	●	●	●	●	●	●

KEY FEATURES & BENEFITS

GENERAL FEATURES

- 3 piece bolted body design for ease of field service and maintenance
- Forged body, bonnet and ball material as a standard, ensures a high integrity material grain structure
- Body joint integrity is ensured by dual independent seals supported by tight toleranced overlapping metal to metal joint construction capable of withstanding pipeline stress
- Valves are double block and bleed
- Valves are antistatic tested
- Valves are fire safe tested and verified by reputable third party
- Valves have safe relieving manual bleed valve
- Valves have drain / flush plug
- All trunnion valves are equipped with a locking device. For gear operated valves, this feature is included on the gear operator
- All trunnion valves have ISO 5211 mounting flanges for ease of mounting actuators.
- Valve compliance with low emission standards
- Standard document package ISO / EN 10104.3.1

STEM DESIGN FEATURES

- Valves have anti blow out (blow out proof) stem
- Stems and trunnions are manufactured separately from the ball and supported by bearing and RPTFE thrust washer to ensure low consistent torques
- Multiple independent stem packing seal systems ensures stem seal integrity
- All valves include emergency secondary stem sealant injection system

SEAT DESIGN FEATURES

- Valves have internal automatic self-relieving cavity (DPE designs are available on request)
- Special high volume seat insert design facilitate the selection of a broader range of materials while providing an increased life in difficult service conditions
- Seat ring sealing includes separate graphite seals for maximum assurance in fire conditions.
- All valves size 6" and larger (smaller sizes on special request where possible) include emergency secondary seat sealant injection system
- A separate independent check valve is beneath the seat sealant injection fittings. Our valves are hydrotested utilizing the check valve only
- Should an injection fitting be damaged, it may be replaced without the requirement of re hydrotesting the valve

OPTIONAL FEATURES

- Double piston effect seats
- Combination seats (double piston effect on one side and a self-relieving seat on the other)
- Body may be coated for corrosion protection





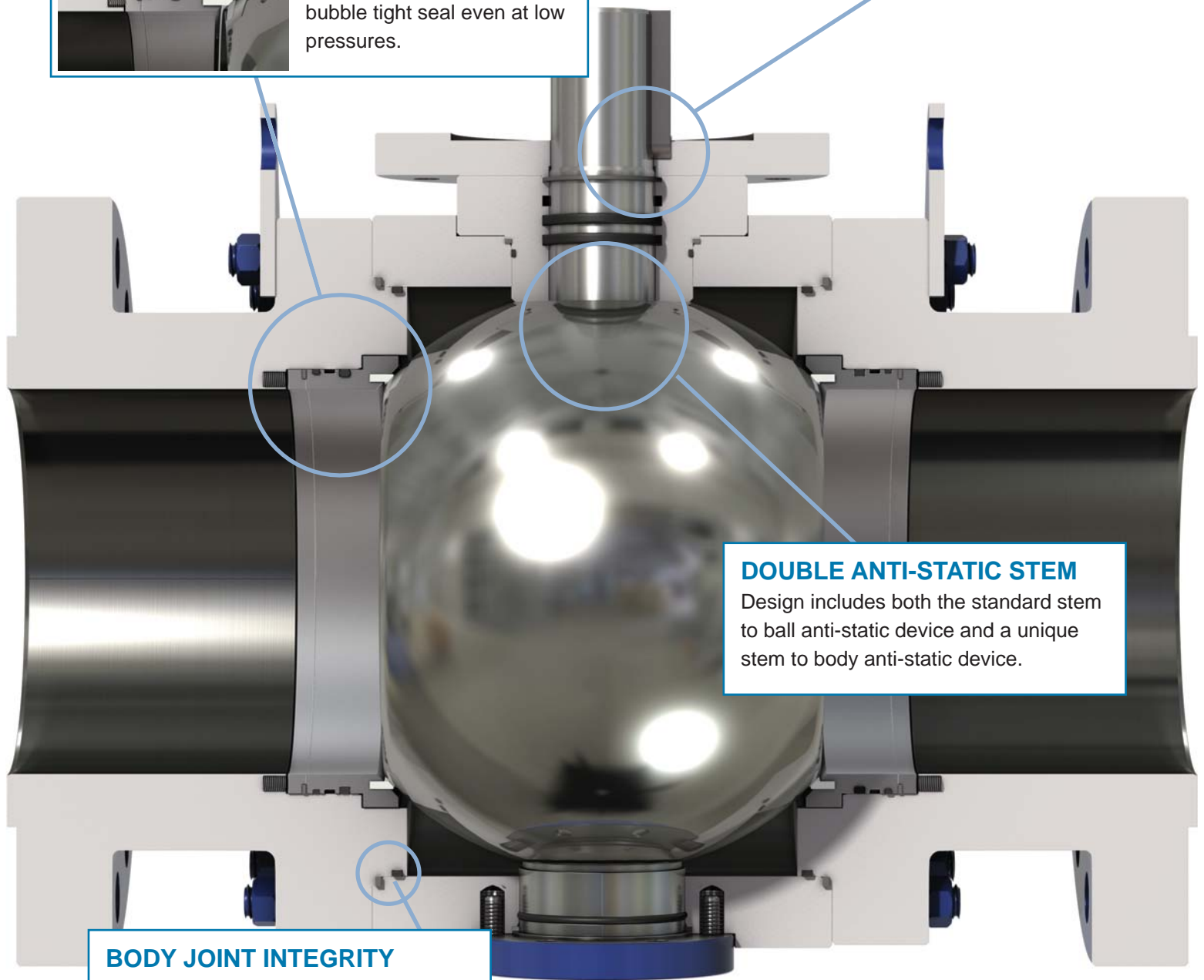
INTERNAL VALVE STOPS

The valve stops are internal, which facilitates easy correct actuation stop setting when the valve is retrofitted in the field.



INDEPENDENT SEATS

Independent seats with preloaded springs ensure a bubble tight seal even at low pressures.



DOUBLE ANTI-STATIC STEM

Design includes both the standard stem to ball anti-static device and a unique stem to body anti-static device.

BODY JOINT INTEGRITY

All body joints have a primary o-ring seal backed by a secondary graphite gasket seal. This is supported by a tight tolerance metal to metal, overlapped, joint construction to ensure fire safe design conformity.

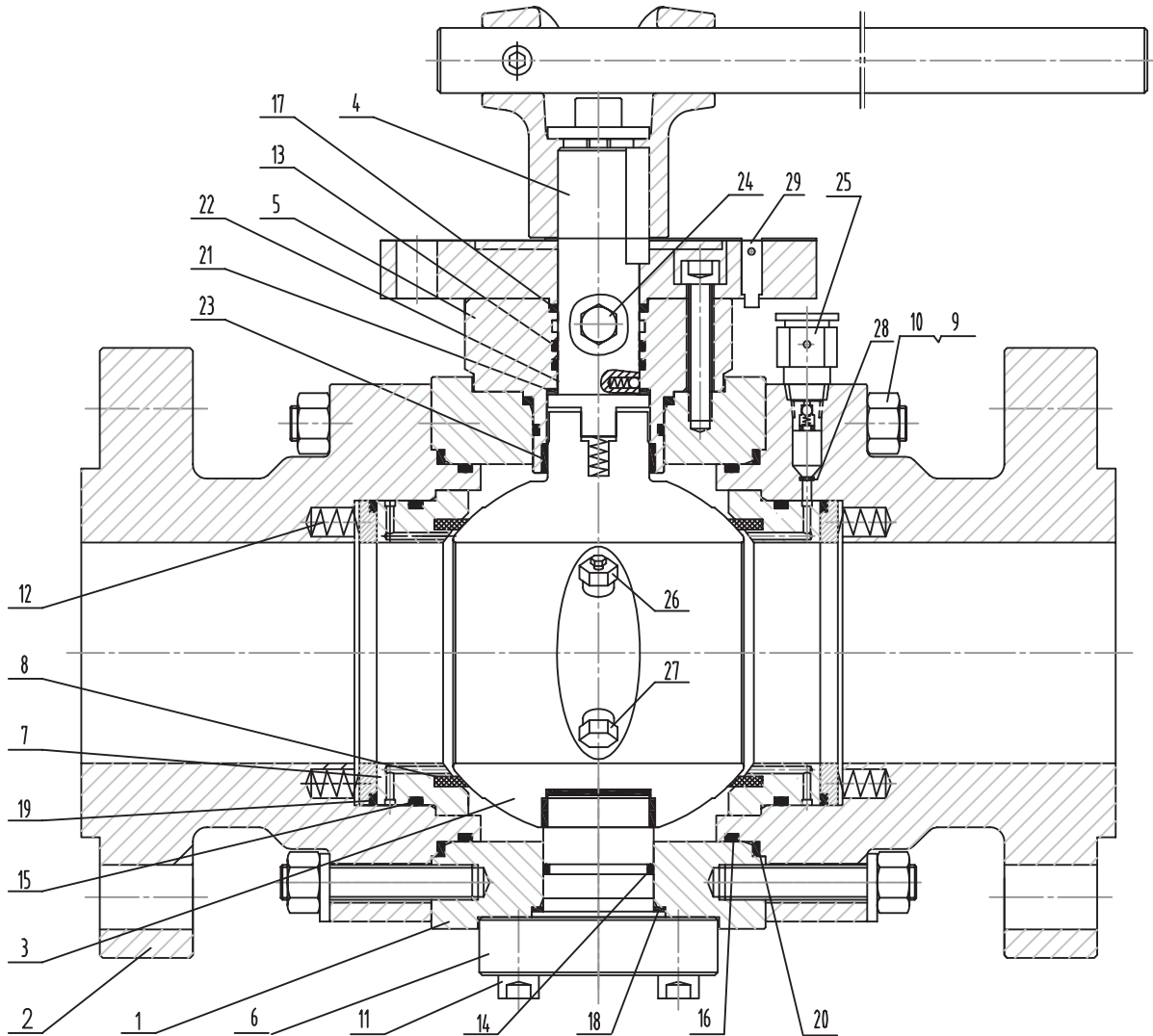
CROSS SECTIONAL DRAWING

External trunnion design, full port, lever operated

Range: 2" - 4" ANSI 150, 300 & 600

2" - 3" ANSI 900

2" ANSI 1500 & 2500



ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS
1	BODY	11	BOLT	21	THRUST WASHER
2	ADAPTER	12	SPRING	22	BEARING
3	BALL	13	O-RING	23	BEARING
4	STEM	14	O-RING	24	STEM INJECTION VALVE
5	BONNET	15	O-RING	25	SEAT INJECTION VALVE
6	TRUNNION	16	O-RING	26	BLEED VALVE
7	SEAT RING	17	FIRE SAFE SEAL	27	DRAIN PLUG
8	SEAT	18	FIRE SAFE SEAL	28	CHECK VALVE
9	BODY STUD	19	FIRE SAFE SEAL	29	LOCKING DEVICE
10	BODY NUT	20	FIRE SAFE SEAL		

NOTE: 2" to 4" ANSI 150 & 300 DO NOT INCLUDE SEAT SEALANT INJECTION.

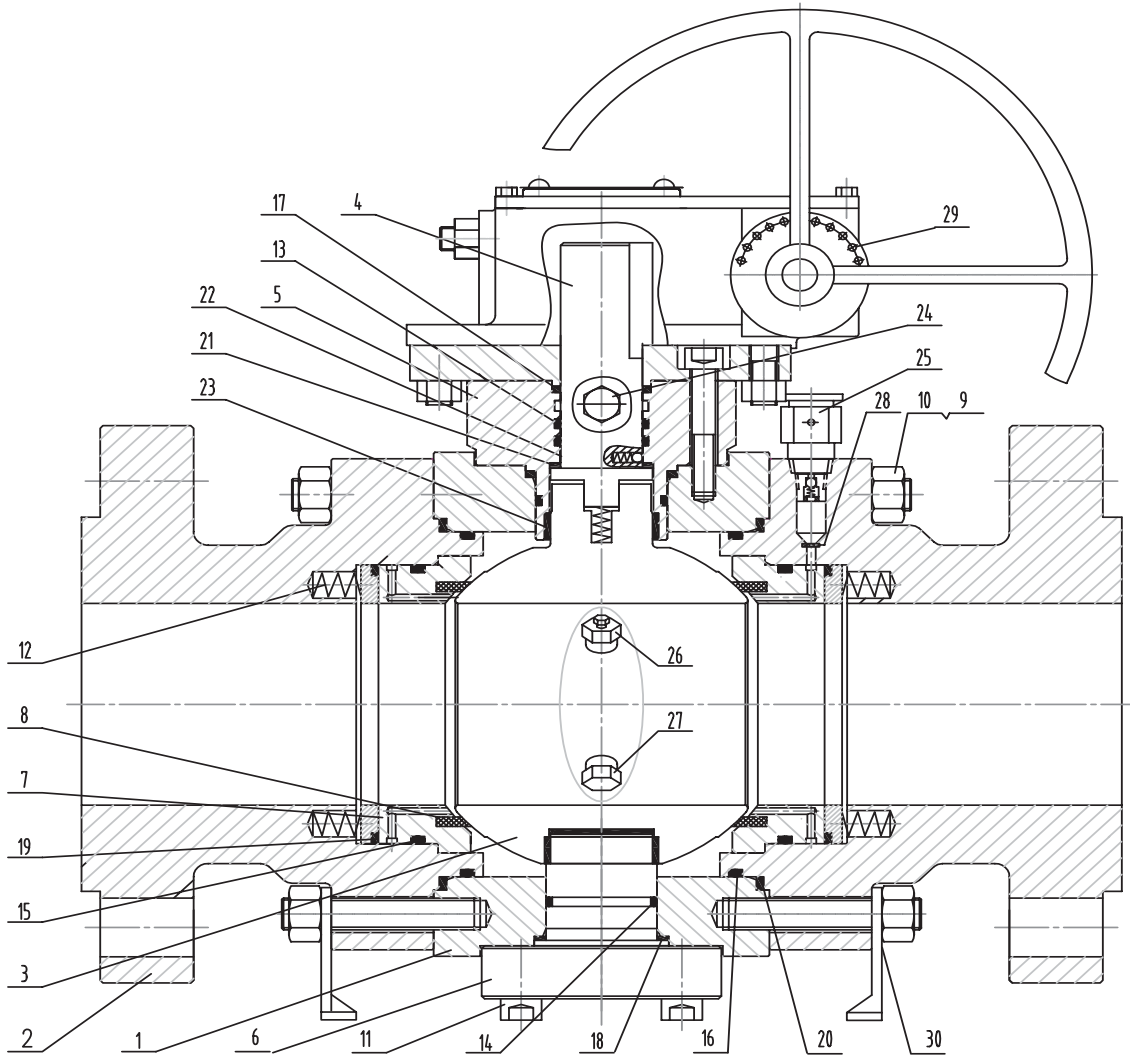
CROSS SECTIONAL DRAWING

External trunnion design, full port, gear operated

Range: 6" - 12" ANSI 150, 300 & 600

4" - 10" ANSI 900

3" & 4" ANSI 1500 & 2500

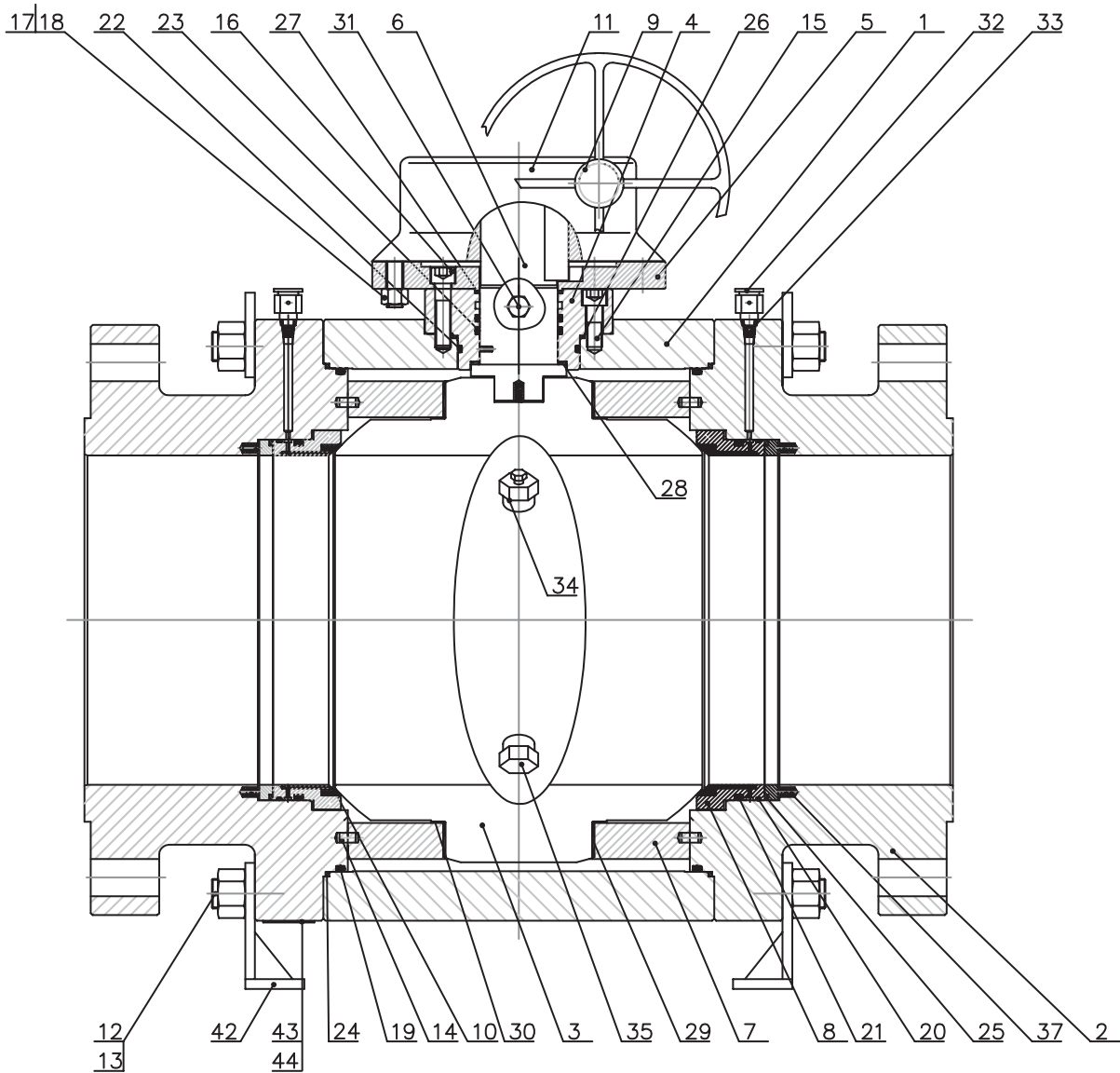


ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS
1	BODY	11	BOLT	21	THRUST BEARING
2	ADAPTER	12	SPRING	22	BEARING
3	BALL	13	O-RING	23	BEARING
4	STEM	14	O-RING	24	STEM INJECTION VALVE
5	BONNET	15	O-RING	25	SEAT INJECTION VALVE
6	TRUNNION	16	O-RING	26	BLEED VALVE
7	SEAT RING	17	FIRE SAFE SEAL	27	DRAIN PLUG
8	SEAT	18	FIRE SAFE SEAL	28	CHECK VALVE
9	BODY STUD	19	FIRE SAFE SEAL	29	LOCKING DEVICE
10	BODY NUT	20	FIRE SAFE SEAL	30	SUPPORT LEGS

NOTE: Support legs and lifting lugs supplied on sizes 6" and larger.

CROSS SECTIONAL DRAWING

Internal trunnion design, full port, gear operated
 Range: 14" & Larger ANSI 150, 300 & 600
 12" & Larger ANSI 900
 6" & Larger ANSI 1500 & 2500



ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS
1	BODY	10	SEAT INSERT	24-27	FIRE SAFE SEAL
2	ADAPTER	11	GEAR	28	THRUST WASHER
3	BALL	12	BODY STUD	29	BEARING
4	BONNET	13	NUT	30	THRUST WASHER
5	BONNET FLANGE	14	BEARING BLOCK PLATE PIN	31	STEM INJECTION
6	STEAM	15, 16	BOLT	32	SEAT INJECTION
7	BEARING BLOCK PLATE	17	MOUNTING STUD	33	CHECK VALVE
8	SEAT HOLDER	18	NUT	34	BLEED VALVE
9	LOCKING PLATE	19-23	O-RING	35	DRAIN PULG

NOTE: Support legs and lifting lugs supplied on sizes 6" and larger.

SIZES & DIMENSIONS

TRUNNION 2" to 4" LEVER OPERATED

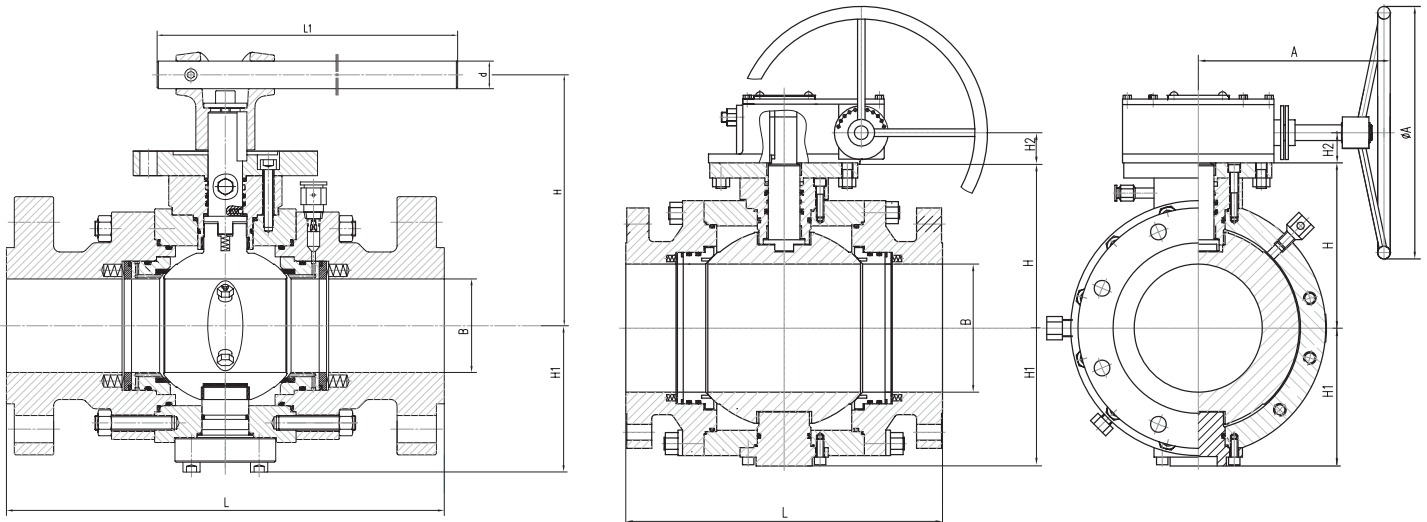
Size in inches Dimensions in mm

ANSI	SIZE	B - Port		L-RF	L-RTJ	L-WE	H	H1	L1	d
		Full	Reduced							
150	2	49	38	178	191	216	160	94	400	18
150	3	74	49	203	216	283	200	120	450	22
150	4	100	74	229	241	305	235	137	450	22
300	2	49	38	216	232	216	160	94	400	18
300	3	74	49	283	298	283	200	120	450	22
300	4	100	74	305	321	305	235	137	450	22
600	2	49	38	292	295	292	176	100	400	18
600	3	74	49	356	359	356	203	121	500	22
600	4	100	74	432	435	432	203	146	700	33
900	2	49	38	368	371	368	185	103	600	22
900	3	74	49	381	384	381	220	136	700	33
1500	2	49	38	368	371	368	185	105	600	22
2500	2	42	38	451	454	451	215	156	600	22

TRUNNION 2" to 4" GEAR OPERATED

Size in inches Dimensions in mm

ANSI	SIZE	B - Port		L-RF	L-RTJ	L-WE	H	H1	H2	A	Dia A
		Full	Reduced								
600	4	100	74	432	435	432	164	146	40	270	400
900	3	74	49	381	384	381	155	136	38.5	254	400
900	4	100	74	457	460	457	176	150	55	229	465
1500	2	49	38	368	371	368	127	105	37	254	400
1500	3	74	49	470	473	470	155	136	38.5	254	400
1500	4	100	74	546	549	546	190	168	55	229	465
2500	2	42	38	451	454	451	140	156	35	238	400
2500	3	62	42	578	584	578	173	156	40	270	400
2500	4	87	62	673	683	673	214	191	40	270	400



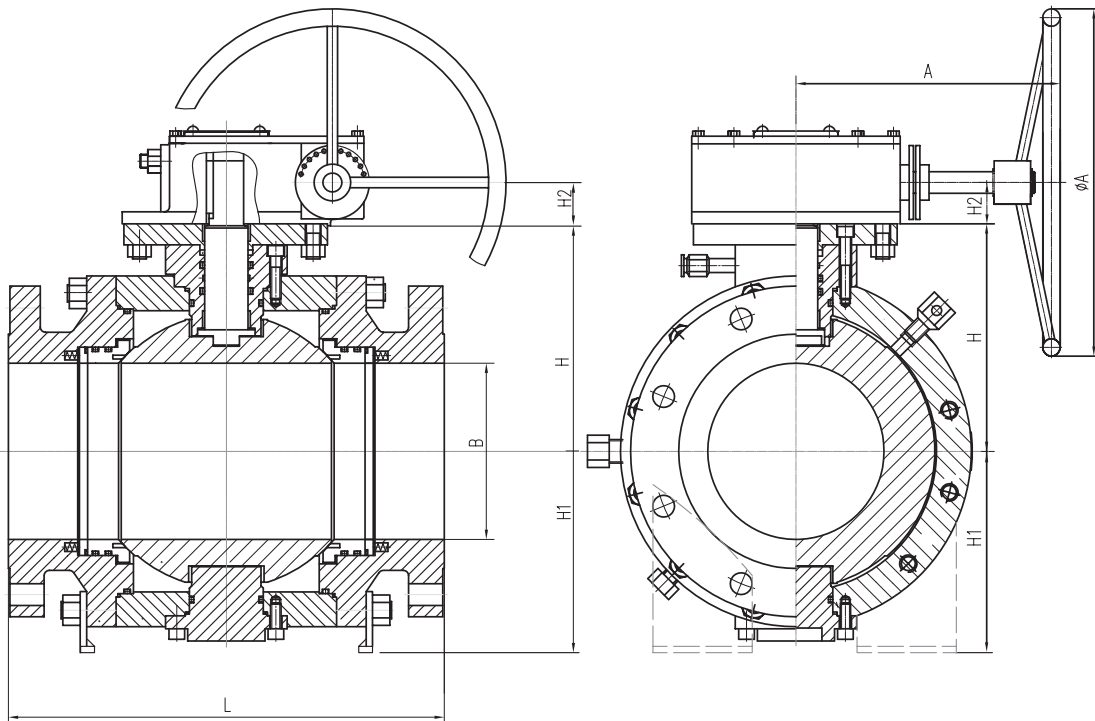
SIZES & DIMENSIONS

TRUNNION 6" to 48" GEAR OPERATED

Size in inches Dimensions in mm

ANSI	SIZE	B - Port		L-RF	L-RTJ	L-WE	H	H1	H2	A	dia A
		Full	Reduced								
150	6	150	100	394	406	457	227	245	55	342	400
150	8	201	150	457	470	521	252	245	55	342	400
150	10	252	201	533	546	559	295	280	55	402	600
150	12	303	252	610	622	635	323	355	55	402	600
150	14	334	252	686	699	762	363	377	55	402	600
150	16	385	303	762	775	838	410	380	55	402	600
150	18	436	334	864	876	914	449	420	77	544	750
150	20	487	385	914	927	991	486	450	77	544	750
150	24	589	487	1067	1080	1143	573	530	92.5	642	750
150	30	735	589	1295	1299	1397	694	650	92.5	642	750
150	36	874	735	1524	1528	1727	812	765	92.5	642	750
150	42	1020	874	1855	1859	2083	938	940	92.5	642	750
150	48	1166	976	2134	2138	2388	1062	1063	160	842	800

ANSI	SIZE	B - Port		L-RF	L-RTJ	L-WE	H	H1	H2	A	dia A
		Full	Reduced								
300	6	150	100	403	419	403	227	245	55	342	400
300	8	201	150	502	518	521	252	245	55	342	400
300	10	252	201	568	584	559	295	380	55	402	600
300	12	303	252	648	664	635	355	355	55	402	600
300	14	334	252	762	778	762	363	377	55	402	600
300	16	385	303	838	854	838	410	380	77	544	750
300	18	436	334	914	930	914	457	435	77	544	750
300	20	487	385	991	1010	991	510	495	92.5	642	750
300	24	589	487	1143	1165	1143	591	555	92.5	642	750
300	30	735	589	1397	1422	1397	718	675	92.5	642	750
300	36	874	735	1727	1756	1727	827	785	130	753	800
300	42	1020	874	2083	2083	2083	945	949	130	753	800
300	48	1166	976	2388	2388	2388	1084	1083	160	842	800



SIZES & DIMENSIONS

TRUNNION 6" to 48" GEAR OPERATED

Size in inches Dimensions in mm

ANSI	SIZE	B - Port		L-RF	L-RTJ	L-WE	H	H1	H2	A	dia A
		Full	Reduced								
600	6	150	100	559	562	559	227	245	55	402	600
600	8	201	150	660	664	660	255	268	55	402	600
600	10	252	201	787	791	787	299	340	55	402	600
600	12	303	252	838	841	838	353	340	55	402	600
600	14	334	252	889	892	889	383	380	77	544	750
600	16	385	303	991	994	991	414	495	77	544	750
600	18	436	334	1092	1095	1092	475	455	77	544	750
600	20	487	385	1194	1200	1194	519	510	90	579	700
600	24	589	487	1397	1407	1397	615	585	92.5	642	750
600	30	735	589	1651	1664	1651	748	710	120	753	800
600	36	874	735	2083	2099	2083	890	845	120	753	800
600	42	1020	874	2437	2437	2437	973	977	170	842	800
600	48	1166	976	2540	2540	2540	1108	1113	170	842	800

ANSI	SIZE	B - Port		L-RF	L-RTJ	L-WE	H	H1	H2	A	dia A
		Full	Reduced								
900	6	150	100	610	613	610	232	245	55	402	600
900	8	201	150	737	740	737	277	295	55	402	600
900	10	252	201	838	841	838	320	345	77	544	750
900	12	303	252	965	968	965	384	355	77	544	750
900	14	322	252	1029	1038	1029	405	385	77	544	750
900	16	373	303	1130	1140	1130	459	470	80	545	800
900	18	423	322	1219	1232	1219	503	560	92.5	642	750
900	20	471	373	1321	1334	1321	530	656	92.5	642	750
900	24	570	471	1549	1568	1549	630	707	120	753	800
900	30	712	570	1880	1902	1880	775	789	120	753	800

ANSI	SIZE	B - Port		L-RF	L-RTJ	L-WE	H	H1	H2	A	dia A
		Full	Reduced								
1500	6	144	100	705	711	705	247	308	55	402	600
1500	8	192	144	832	841	832	333	364.5	64	380	600
1500	10	239	192	991	1000	991	351	408.5	77	544	750
1500	12	287	239	1130	1146	1130	407	482	77	544	750
1500	14	315	239	1257	1276	1257	407	481.5	92.5	642	750
1500	16	360	287	1384	1407	1384	483	522	92.5	642	750
1500	18	407	315	1537	1559	1537	595	606	120	753	800
1500	20	457	360	1664	1686	1664	680	695	120	753	800
1500	24	534	454	2043	2071	2043	758	775	120	753	800

ANSI	SIZE	B - Port		L-RF	L-RTJ	L-WE	H	H1	H2	A	dia A
		Full	Reduced								
2500	6	131	87	914	927	914	305	284	77	544	750
2500	8	179	131	1022	1038	1022	367	428.5	77	544	750
2500	10	223	179	1270	1292	1270	464	435	92.5	642	750
2500	12	265	223	1422	1445	1422	528	495	92.5	642	750

TOP WORKS DIMENSIONS

FULL PORT TRUNNION Size in inches Dimensions in mm

SIZE	ANSI 150		ISO			
	H	H2	C1	C2	C3	Mounting Flange
2	112	29	20	16.5	6	F10
3	139	34	28	23.5	8	F12
4	163.5	36	28	23.5	8	F14
6	227	51	40	34.5	10	F25
8	252	74	45	38	12	F25
10	295	80	58	48	18	F25
12	323	85	58	51	18	F25
14	356	95	68	57	20	F25
16	398.5	105	75	65	20	F25
18	450	110	75	63	24	F25
20	485	120	98	84	28	F25
24	582	138	108	94	28	F30
30	694	143	110	96	28	F30
36	812	160	125	109	32	F35

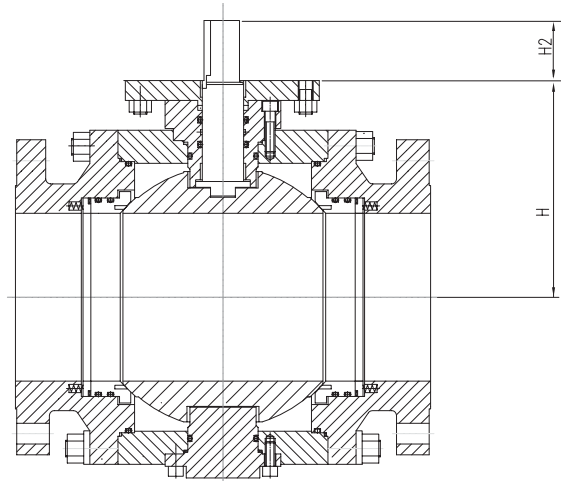
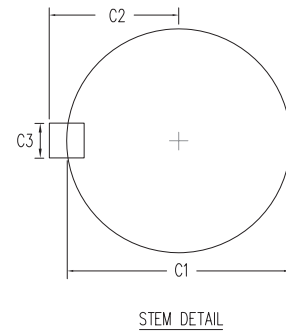
SIZE	ANSI 300		ISO			
	H	H2	C1	C2	C3	Mounting Flange
2	118	29	20	16.5	6	F10
3	139	34	28	23.5	8	F12
4	163.5	36	28	23.5	8	F14
6	227	51	40	34.5	10	F16
8	252	68	45	38	12	F25
10	295	74	58	48	18	F25
12	355	86	58	51	18	F25
14	376.5	95	68	57	20	F25
16	416	104	75	63	20	F25
18	458	118	75	65	24	F25
20	502.5	123	98	84	28	F25
24	582	138	108	94	28	F30
30	720	143	110	96	28	F30
36	825	160	125	109	32	F35

SIZE	ANSI 600		ISO			
	H	H2	C1	C2	C3	Mounting Flange
2	122	29	20	16.5	6	F10
3	140	34	28	23.5	8	F12
4	179	36	34	28.5	10	F16
6	227	51	45	38	12	F16
8	255	80	58	48	18	F25
10	299	85	68	57	20	F25
12	353	115	68	57	20	F25
14	388	116	70	62.5	20	F25
16	413.5	123	85	71	24	F25
18	487.5	130	90	81	25	F25
20	519	130	98	84	28	F30
24	615	153	120	104	32	F35
30	750	153	120	104	32	F35
36	880	93	145	129	32	F40

SIZE	ANSI 900		ISO			
	H	H2	C1	C2	C3	Mounting Flange
2	190	29	28	23.5	8	F10
3	220	34	34	28.5	10	F14
4	255	36	34	28.5	10	F16
6	227	51	45	38	12	F25
8	277	85	58	48	18	F25
10	320	80	68	57	20	F25
12	384	100	68	57	20	F25
16	443.5	110	85	71	24	F25
18	503	110	90	78	24	F30
20	530	138	108	94	28	F35
24	630	183	145	129	32	F40

SIZE	ANSI 1500		ISO			
	H	H2	C1	C2	C3	Mounting Flange
2	127	29	28	23.5	8	F10
3	155	34	34	28.5	10	F14
4	185	51	34	28.5	10	F16
6	247	95	55	47	16	F25
8	333	82	55	47	16	F25
10	351	100	68	57	24	F25
12	407	100	85	71	24	F25

SIZE	ANSI 2500		ISO			
	H	H2	C1	C2	C3	Mounting Flange
2	127	29	28	23.5	8	F10
3	155	34	38	28.5	10	F14
4	185	51	45	28.5	10	F16
6	305	82	55	47	16	F25
8	367	100	68	57	20	F25
10		130	98	88	28	F30



Meridian provides rapid turn-around valve actuation solutions and will customize its industry leading valve product range to meet its customers' actuation

needs. Actuation products include electric actuators, pneumatic and hydraulic actuators, and control accessories.

Same day shipment of Meridian actuation packages!



CAPABILITIES

- Quarter-turn actuation
- Multi-turn/linear actuation
- Complete shop facilities
- Experienced Technicians
- Retrofit in service
- In-field services
- Total package responsibility
- All actuators are sized for full ANSI differential pressure and Meridian ensures that the appropriate safety factor is added to ensure safe operation

IN STOCK

- Pneumatic, Hydraulic, and Electric
- Control accessories and mounting hardware
- ESD packages

PACKAGES

Meridian™ actuated packages including:

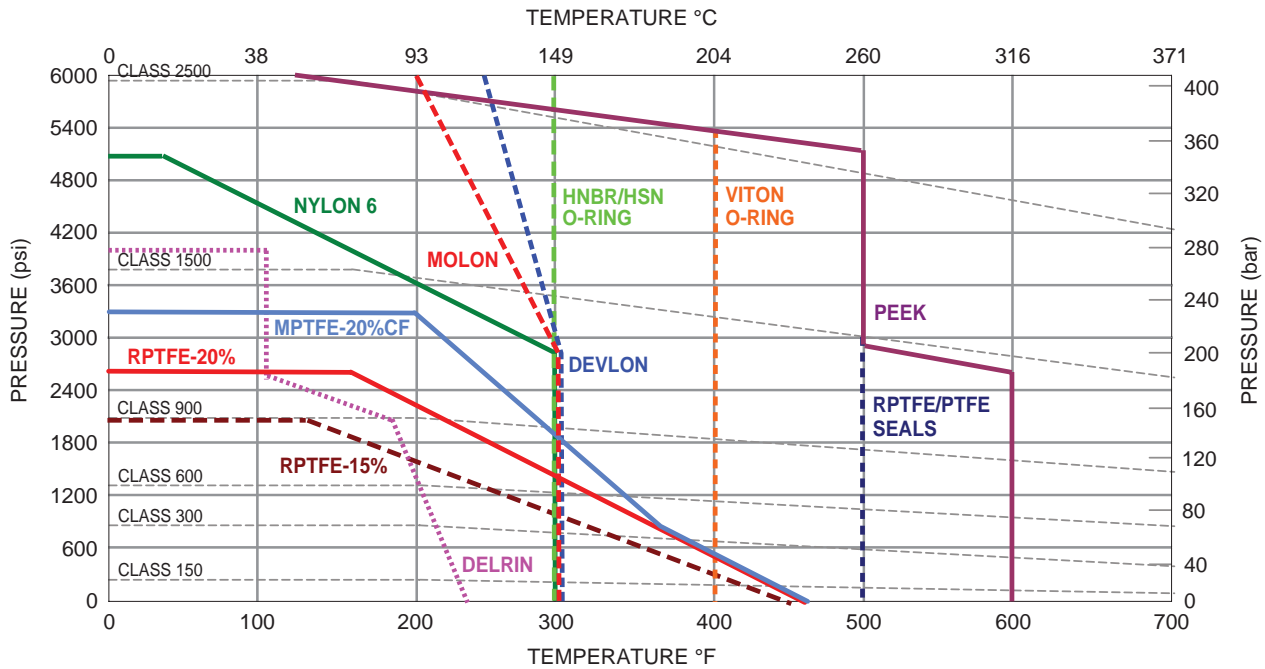
- Pneumatic actuated ball valves
- Self-contained hydraulic ESD system
- Electric actuated quarter and multi-turn valves
- Actuated control chokes
 - Meridian™ MAP 2000
 - Meridian™ MAP 2100
- Gas-over-oil packages

FNW™ actuated packages

- FNW™ ball valves
- FNW™ knife gates
- FNW™ butterfly valves



REFERENCE PRESSURE/TEMPERATURE CHART



Consult ASME 16.34 for specific material pressure/temperature ratings.
Consult Meridian for specific information.

APPLICABLE STANDARDS

API - AMERICAN PETROLEUM INSTITUTE

API 6D	Specification for Pipeline Valves
API 598	Valve Inspection and test
API 607 rev. 5	Specification for fire test for soft seated quarter turn valves
API 608	Metal ball valves, flanged, threaded and welding ends
API Q1	Specification for Quality Programs

ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS

B16.5	Steel pipe flanges and flanged fittings
B16.10	Face to Face and end to end dimensions of valves
B16.25	Butt welding ends
B16.34	Valves- flanged, threaded and welding ends
B16.47 series A	Large Diameter Steel Flanges

MSS - Manufactures Standardization Society

MSS SP-25	Standard marking system for valves, flanges, fittings and unions
MSS SP-44	Large diameter steel flanges
MSS SP- 54	Quality standard for steel castings for valves, radiographic examination method
MSS SP-55	Quality standard for steel castings for valves, visual method

CE - Conformité Européene or European Conformity

CE	EC certificate of conformity with EC design examination approval to PED
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BS - BRITISH STANDARD

BS EN ISO 10204	Inspection Documents
BS EN 17292	Steel ball valves for the petroleum, petrochemical and allied industries

CSA - CANADIAN STANDARDS ASSOCIATION

CSA Z245.15 - 05	Steel Valves
CSA B51.03	Boiler, pressure vessel and pressure piping code

ISO - INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

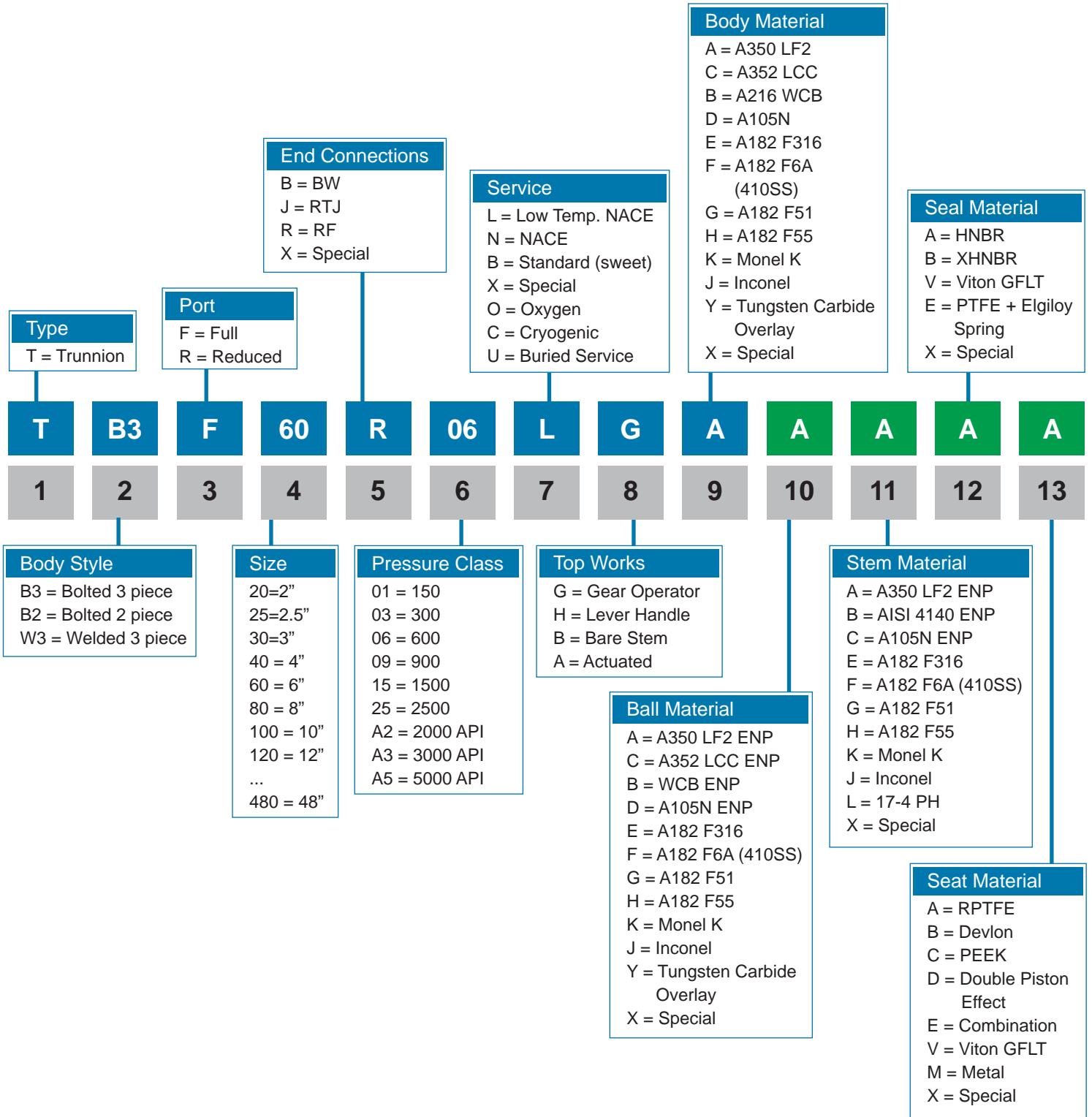
ISO 9001	Quality Management Systems
ISO TS 29001	Specification for quality programs
ISO 15156 (All)	Sulphide stress cracking resistant metallic materials for oil field equipment
ISO 14313	Specification for pipeline valves
ISO 5208	Pressure testing of metallic valves
ISO 5211	Industrial valves - part turn actuator attachment
ISO 15848-1	Measurement, test and qualification procedures for fugitive emissions

NACE - NATIONAL ASSOCIATION OF CORROSIVE ENGINEERS

MR0175	Sulphide stress cracking resistant metallic materials for oilfield equipment
MR0103	Sulphide stress cracking resistant metallic materials for petroleum refining

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ORDERING FIGURE NUMBER CHART






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