

A Long Experience in Energy Equipment and one Goal:

The Customer's satisfaction.



VALVE AND FLOW CONTROL SPECIALISTS
SERVICE AND RELIABILITY



Side Entry Ball Valves Type 54 & 55

Brisbane Sydney Melbourne Darwin
VALVE AND FLOW CONTROL SPECIALISTS PTY LTD
E-mail sales@valveandflowcontrolspecialists.com

VALVITALIA PAVIA PLANT

VALVITALIA is an Italian Group of valves and other energy equipment manufacturers created to provide to the customers complete packages of products and services.

Italy historically has been the Country with the largest number of valves and other energy equipment manufacturers. Also, Italy has provided to the oil & gas companies excellent engineering services. Experienced management, quality, performance, availability of large inventory and full dedication to the customer's satisfaction differentiate VALVITALIA from the competition.

VALVITALIA can provide discrete products and/or complete packages, including actuators, gear operators, pre-assembled skids for gas regulating e metering stations. Among the pre and post sales services, VALVITALIA offers the refurbishment of any type of valve. The availability of stocks represents an additional service to the customers, very difficult to find elsewhere.



Offer the best product at a competitive price and to respect agreed delivery times is our commitment.



TECHNICAL FEATURES

STANDARD FEATURES	Type 54	Type 55	COMMENTS
Size range	1 1/2" FB up to 6" RB	6" FB up to 60"	Special sizes available on request
Pressure	ANSI 150÷2500 e API 6A	1ANSI 150÷2500 e API 6A	
Three piece split body	YES	YES	
Anti-static device	YES	YES	
Self relieving seats	YES	NO	55-option (no extra cost)
Double Piston Effect seats	NO	YES	54-option (no extra cost)
Lubricated stem	YES	YES	
Lubricated seat	NO	YES	54-option(*)
Double block and bleed	YES	YES	
Metal to metal seats	YES (*)	YES (*)	
Trunnion mounted ball	YES	YES	
Full or Reduced bore	YES	YES	
Bi-directional	YES	YES	
Minimum thickness ASME B16.34	YES	YES	
RF or RTJ flanges to ASME B16.5	YES	YES	Other flange design(*)
BW (butt-weld) ends to ASME B16.25	YES	YES	Other code for BW design(*)
Bore and end-to-end	YES	YES	Dimensions other than API 6D(*)
Manufacture in accordance with API spec. 6D	YES	YES	ASME B 16.34 design available on request(*)
Materials certification to EN10204 type 3.1.B for pressure containing parts, ball, stem and seats	YES	YES	Type 3.1.C materials certification level (*)
Fire safe design to API 6FA (BS 6755 Pt. 2)	YES	YES	Other fire safe code (e.g. API 607)(*)
Bolting ASME VIII div. I	YES	YES	ASME 16.34 available (*)
Operation by lever, gear w/ handwheel or actuator	YES	YES	
Ease of maintenance	Type 54/55 design requires valve removal from line in order to perform maintenance.		

(*) available with extra cost

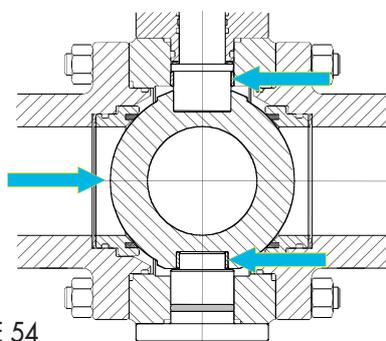


Type 54

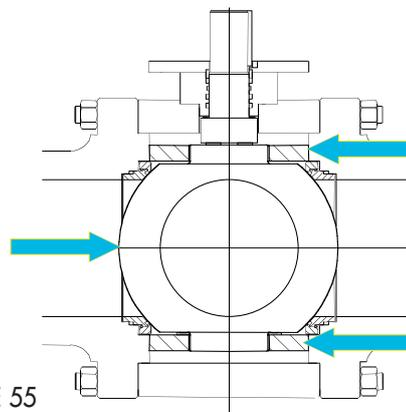


Type 55

Trunnion mounted ball valve



TYPE 54

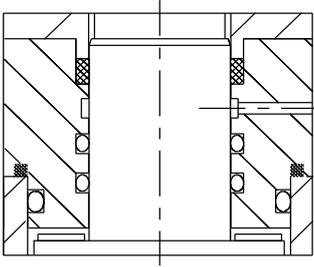


TYPE 55

When the ball is in fully closed position, two trunnions absorb the side thrust generated by line pressures, preventing excess friction between ball and seats. With this system, even at full rated working pressure, operating torque stays low. Therefore a generous sizing of trunnions is essential to the life and operability of the valve.

The spherical surface is machined and ground to close tolerance. To reduce torque and minimize wear, the ball is then electroless nickel plated and polished to mirror finish. For special applications the ball may be hardfaced with T.C.C. (Tungsten carbide coating) to improve resistance to wear and prevent scratching caused by hard particles.

TECHNICAL FEATURES



Emergency stem and seat sealant injection

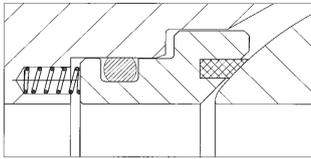
In case of emergency, when sealing materials (seat sealing and stem o-ring) are damaged or decomposed by fire or other accidental causes, a sealant injection into fittings on both stem and seat prevents leakage until the primary seal is restored. For Type 54 ball valve the seat sealant injection is an optional feature available with an extra cost. However, the material between ball and seat is a thermoplastic, thus no further injection is necessary. Self lubricated, low friction materials is used for stem bearings, stem seals and body seats. Low friction materials, e.g. nylon, are used for seat inserts. Stem bearings and self-lubricating seals give predictable operating torque for the life of the valve.

Stem

The stem is made separately from the ball. It is blow-out proof, property obtained with an integral collar in the bottom of the stem.

Stem Seal

Sealing system can be defined triple: two static o-rings seal the stem, plus a third graphite retained by the adaptor flange. This ultimate seal can be replaced when the valve is in line and in closed position.

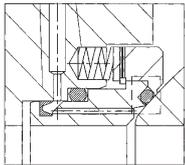


Type 54

Seat design

Type 54 ball valve: plastic polymer insert for seat sealing, spring energised.

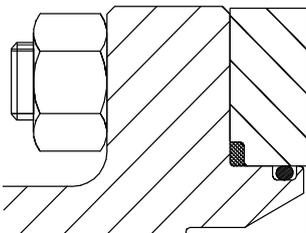
Type 55 ball valve: primary metal-to-metal seal and secondary synthetic o-ring seal, spring energised.



Type 55

Body design

VALVITALIA trunnion mounted valves have a compact and streamlined body for maximum strength and minimum weight. Uniform fine grain and structure and toughness is assured by forged steel.



Double barrier on body joints

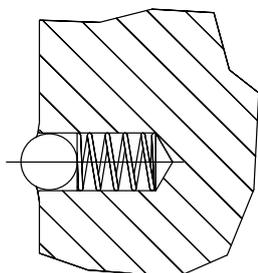
VALVITALIA valve design assures double barriers for all leakpaths. In this way, when one fails, the other seals.



Fire safe design and test

Fire safe is standard design of all Valvitalia ball valve.

Two o-ring and gland gasket prevent leakpaths from the valve stem area, o-ring and body gasket prevent leakage through the valve body. If fire deteriorate o-ring, gland gasket, body gasket and the stem firesafe packing prevent fluid or gas leakage. Valvitalia soft seat ball valve fire safe test (shown in the image) was witnessed and certified according to API 607 - API 6 FA - BS 6755 pt.2.



Anti-static device

This device is a standard feature of VALVITALIA ball valves. A coil spring thrusts a little sphere, providing earthed continuity between stem and other metallic components of valve (ball and body) in order to avoid sparks during tuning of the stem for opening and closing the valve and prevent problems in case of use with flammable fluids and gas.

TECHNICAL FEATURES

Body vent and drain

The drain and vent plug of the valve body enable to check the integrity of the seat ring. A bleed valve may replace the drain plug.

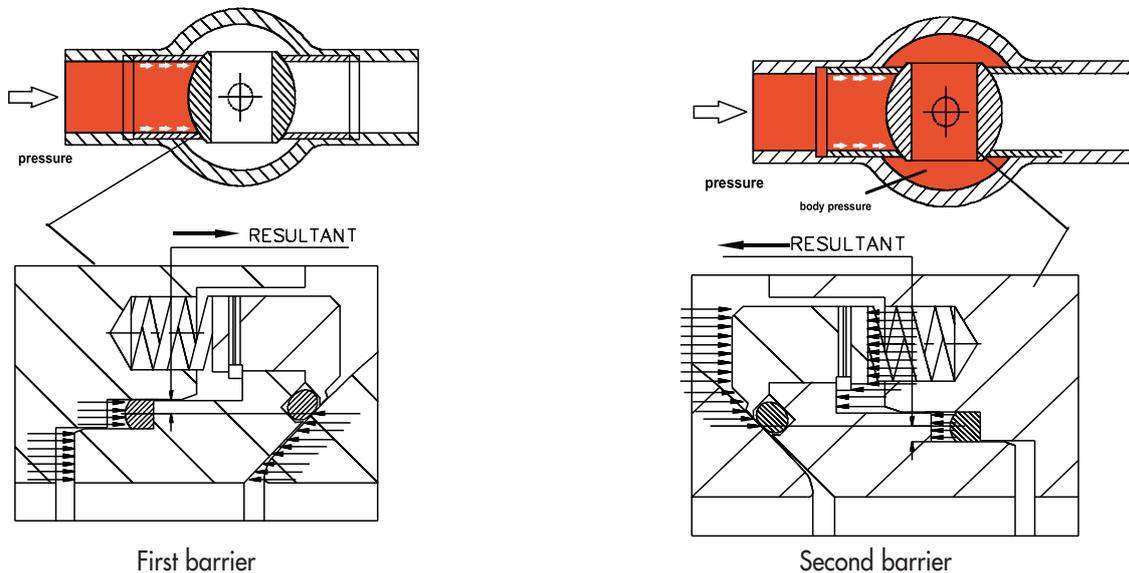
Double block and bleed

VALVITALIA design of a valve with two seating surfaces between which the cavity can be vented through a bleed connection and thus confirm the tightness of the valve, as well in closed position as open position, when pressure is applied to any side or both sides of the valve.

Double piston effect (55-standard, 54-option)

With the DPE seat configuration when there is a leakage in the upstream seat, the pressure entering into the body cavity pushes the downstream seat against the ball and the valve seals.

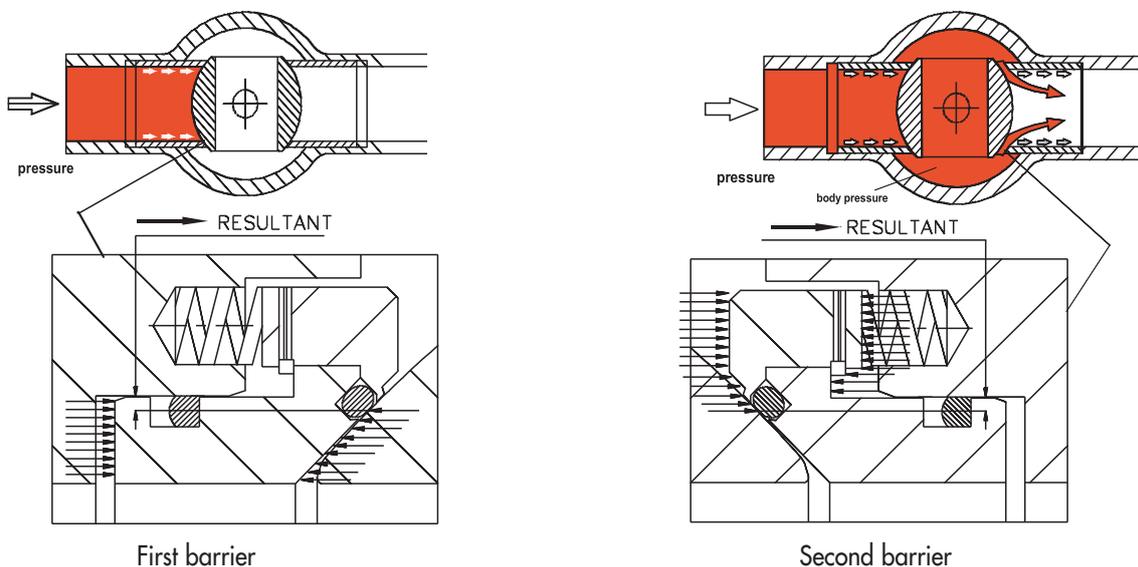
This effect is a sealing principle involved in utilising line pressure to effect a seal across the floating seat.



A relief valve is recommended to be installed to protect the body cavity from excess pressure.

Self relieving seat

In self relieving condition, excessive internal body pressure is automatically relieved both in upstream and downstream line by forcing the seats away from the closure element.

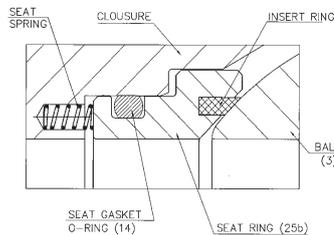
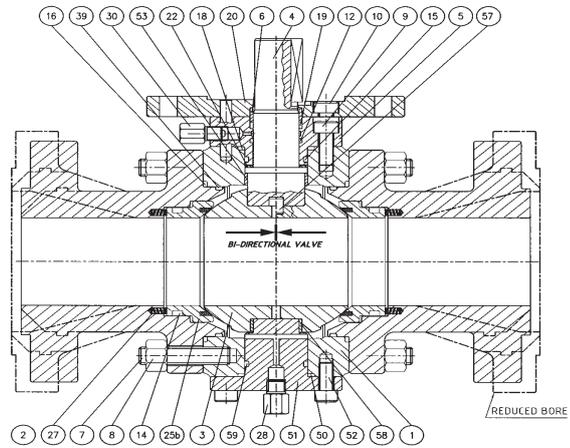


STD. MATERIAL SELECTION

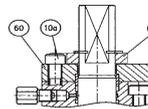
Type 54

61	STOP COLLAR	Fe 360	3
60	BEARING HOUSING	A-105	3
59	TRUNNION O-RING	VITON	
58	TRUNNION BEARING	DRY BEARING	
57	STEM PIN	42CrMo4	
53	STEM BEARING	DRY BEARING	
52	LOWER TRUNNION CAPSCREW	A-193-B7	
51	LOWER TRUNNION	A-350-LF2	1
50	LOWER TRUNNION F.S. SEAL	GRAPHITE	
45	RELIEF VALVE	A-182-F316	
47	RETAINING RING	A-350-LF2	1
39	BODY O-RING	VITON	
30	STEM GREASE FITTING	AISI 1018	
28	DRAIN PLUG	42CrMo4	
27	SEAT SPRING	18-8	
25b	SEAT RING WITH INSERT	A-350-LF2 + PTFE CCG	1-2
22	UPPER THRUST WASHER	DRY BEARING	
20	ADAPTER PLATE	Fe 410	4
19	STEM F.S. SEAL	GRAPHITE	
18	TOP COVER F.S. SEAL	GRAPHITE	
16	CLOSURE F.S. SEAL	GRAPHITE	
15	TOP COVER O-RING	VITON	
14	SEAT GASKET O-RING	VITON	
12	STEM O-RING	VITON	
10a	BEARING HOUSING CAPSCREW	A-193-B7	3
10	ADAPTER PLATE CAPSCREW	A-193-B7	4
9	TOP COVER CAPSCREW	A-193-B7	
8	BODY STUD NUT	A-194-2H	
7	BODY STUD	A-193-B7	
6	GLAND BUSHING	AISI 1018	1
5	TOP COVER	A-350-LF2	
4	STEM	42CrMo4 (AISI 4140)	1
3	BALL	A-350-LF2	1
2	CLOSURE	A-350-LF2	
1	BODY	A-350-LF2	

Pos.	Description	Material	Notes
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DETAIL FOR LEVER OPERATE



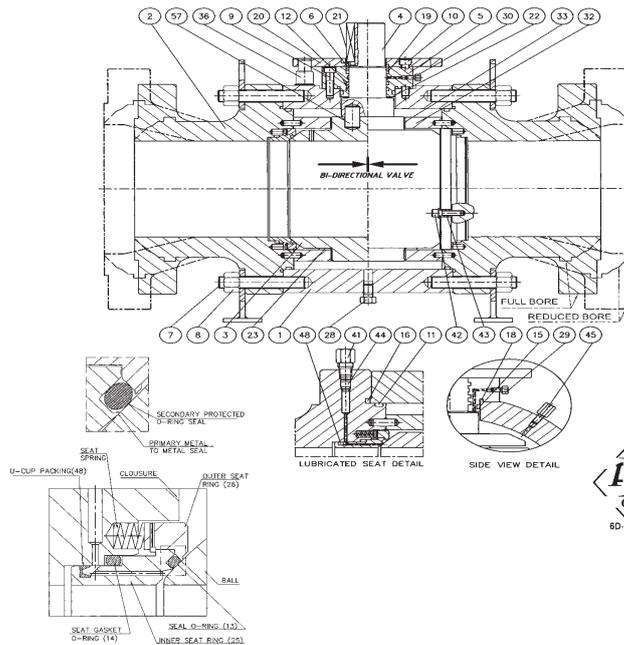
- NOTES: 1) ELECTROLESS NICKEL PLATED 0.001" THICKNESS.
 2) NYLON INSERT ON CLASS 900/1500 3) FOR LEVER OPERATED VALVES
 4) FOR GEAR OR ACTUATOR OPERATED VALVES

SERVICE: STANDARD FLUID - CARBON STEEL TRIM - FIRE SAFE DESIGN
 TEMPERATURE: -7°C +160°C - (-7° +121° FOR CLASS 900-1500)

Type 55

57	STEM PIN	42CrMo4 (AISI 4140)	
48	U-CUP PACKING	VITON	
45	RELIEF VALVE	A-182-F316	
44	CHECK VALVE	AISI 1018	
43	PULLER BUSHING	AISI 1018	
42	PULLER CAPSCREW	8-8 (SAE 1034)	
41	SEAT GREASE FITTING	AISI 1018	
39	BODY O-RING	VITON	
36	ANCHOR PIN	C25 (AISI 1025)	
33	BEARING	DRY BEARING	
32	BEARING RETAINER	Fe 510	
30	GREASE FITTING	AISI 1018	
29	VENT PLUG	42CrMo4 (AISI 4140)	
28	DRAIN PLUG	42CrMo4 (AISI 4140)	
27	SEAT SPRING	18-8	
26	INNER SEAT RING	A-350-LF2	1
25	OUTER SEAT RING	A-350-LF2	1
23	LOWER THRUST WASHER	Fe 360 + P.P.S.	
22	UPPER THRUST WASHER	Fe 360 + P.P.S.	
21	STEM KEY	42CrMo4 (AISI 4140)	
20	ADAPTER PLATE	Fe 410 (A-283)	
15	TOP COVER O-RING	VITON	
14	SEAT GASKET O-RING	VITON	
13	SEAL O-RING	VITON	20
12	STEM O-RING	VITON	
10	ADAPTER PLATE CAPSCREW	8-8 (SAE 1034)	
9	TOP COVER CAPSCREW	8-8 (SAE 1034)	
8	BODY STUD NUT	A-194-2H	
7	BODY STUD	A-193-B7	
6	GLAND BUSHING	AISI 1018	1
5	TOP COVER	A-350-LF2	
4	STEM	C40 (AISI 1040)	1-21
3	BALL	A-350-LF2	1-24
2	CLOSURE	A-350-LF2	
1	BODY	A-350-LF2	

Pos.	Description	Material	Notes
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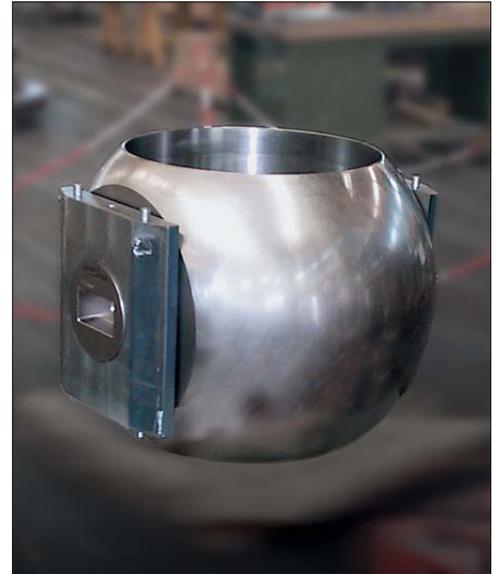
- NOTES: 1) ELECTROLESS NICKEL PLATED 0.001" THICKNESS. - 20) NYLON FOR CLASS 1500.
 21) 42CrMo4 (AISI 4140) AS ALTERNATIVE - 24) A-694-F65 AS ALTERNATIVE

SERVICE: STANDARD FLUID - CARBON STEEL TRIM - FIRE SAFE DESIGN
 TEMPERATURE: -7°C +160°C - (-7° +121° FOR CLASS 900-1500)

STD. MATERIAL SELECTION

Trim materials for general service (sweet fluids) FULL CARBON STEEL

AA	54		55	
Rating	150-1500	2500	150-1500	2500
Temperature	-29° + 180°C	-29° / + 180°C	-29° + 180°C	-29° / + 180°C
Body	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2
Closure	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2
Ball	ASTM A350 Gr.LF2 + ENP	AISI 4140 + ENP	ASTM A350 Gr.LF2 + ENP	A-694-F65 + ENP
Seat	ASTM A350 Gr.LF2 + ENP			
Stem	AISI 4140 + ENP	AISI 4140 + ENP	AISI 1040 + ENP	AISI 4140 + ENP
Bolting	B7 / 2H	B7 / 2H	B7 / 2H	B7 / 2H
Seat gasket	PTFE	NYLON	VITON	NYLON
Other seals	VITON	VITON	VITON	VITON
Seat spring	INCONEL X 750	INCONEL X 750	INCONEL X 750	INCONEL X 750



Trim materials for corrosive services (comply to NACE MR 01-75) STAINLESS STEEL TRIM

CC	54		55	
Rating	150-1500	2500	150-1500	2500
Temperature	-29° + 180°C	-29° / + 180°C	-29° + 180°C	-29° / + 180°C
Body	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2
Closure	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2
Ball	A 182 F316 + ENP	A 182 F316 LN + ENP	A 182 F316 + ENP	A-694-F65 + ENP
Seat	A 182 F316 + ENP	A 182 F316 LN + ENP	A 182 F316 + ENP	ASTM A350 Gr.LF2 + ENP
Stem	A 182 F316 + ENP	17-4-PH + ENP	17-4-PH + ENP	AISI 4140 + ENP
Bolting	B7 / 2H	B7 / 2H	B7 / 2H	B7 / 2H
Seat gasket	PTFE	NYLON	VITON	NYLON
Other seals	VITON	VITON	VITON	VITON
Seat spring	INCONEL X 750	INCONEL X 750	INCONEL X 750	INCONEL X 750



Trim materials for highly corrosive services 13% Cr. STAINLESS STEEL TRIM

DD	54		55	
Rating	150-1500	2500	150-1500	2500
Temperature	-29° + 180°C	-29° / + 180°C	-29° + 180°C	-29° / + 180°C
Body	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2
Closure	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2
Ball	A 182 F6 + ENP			
Seat	A 182 F6 + ENP			
Stem	A 182 F6 + ENP	A 182 F6NM + ENP	A 182 F6 + ENP	A 182 F6 + ENP
Bolting	B7 / 2H	B7 / 2H	B7 / 2H	B7 / 2H
Seat gasket	PTFE	NYLON	VITON	NYLON
Other seals	VITON	VITON	VITON	VITON
Seat spring	INCONEL X 750	INCONEL X 750	INCONEL X 750	INCONEL X 750



Trim materials for corrosive services (comply to NACE MR 01-75) FULL STAINLESS STEEL VALVE

EE	54		55	
Rating	150-1500	2500	150-1500	2500
Temperature	-29° + 180°C	-29° / + 180°C	-29° + 180°C	-29° / + 180°C
Body	A 182 F316	A 182 F316	A 182 F316	A 182 F316
Closure	A 182 F316	A 182 F316	A 182 F316	A 182 F316
Ball	A 182 F316 + ENP	A 182 F316LN + ENP	A 182 F316 + ENP	A 182 F316LN + ENP
Seat	A 182 F316 + ENP	A 182 F316LN + ENP	A 182 F316 + ENP	A 182 F316LN + ENP
Stem	A 182 F316 + ENP	17-4-PH + ENP	17-4-PH + ENP	17-4-PH + ENP
Bolting	B7 / 2H	B7 / 2H	B7 / 2H	B7 / 2H
Seat gasket	PTFE	NYLON	VITON	NYLON
Other seals	VITON	VITON	VITON	VITON
Seat spring	INCONEL X 750	INCONEL X 750	INCONEL X 750	INCONEL X 750

STD. MATERIAL SELECTION

Trim materials for corrosive services (comply to NACE MR 01-75) FULL DUPLEX STEEL VALVE

FF	54		55	
Rating	150-1500	2500	150-1500	2500
Temperature	-29° + 180°C	-29° / + 180°C	-29° + 180°C	-29° / + 180°C
Body	A 182 F51	A 182 F51	A 182 F51	A 182 F51
Closure	A 182 F51	A 182 F51	A 182 F51	A 182 F51
Ball	A 182 F51	A 182 F51	A 182 F51 + ENP	A 182 F51
Seat	A 182 F51	A 182 F51	A 182 F51 + ENP	A 182 F51
Stem	A 182 F51 + ENP			
Bolting	B7 / 2H	B7 / 2H	B7 / 2H	B7 / 2H
Seat gasket	PTFE	NYLON	VITON	NYLON
Other seals	VITON	VITON	VITON	VITON
Seat spring	INCONEL X 750	INCONEL X 750	INCONEL X 750	INCONEL X 750

Trim materials for low temperature with stem extension FULL STAINLESS STEEL VALVE

GG	54		55	
Rating	150-1500	2500	150-1500	2500
Temperature	-49°+180°C	-49°/+180°C	-49°+180°C	-49°/+180°C
Body	A 182 F316	A 182 F316	A 182 F316	A 182 F316
Closure	A 182 F316	A 182 F316	A 182 F316	A 182 F316
Ball	A 182 F316 + ENP	A 182 F316LN + ENP	A 182 F316 + ENP	A 182 F316LN + ENP
Seat	A 182 F316 + ENP	A 182 F316LN + ENP	A 182 F316 + ENP	A 182 F316LN + ENP
Stem	A 182 F316 + ENP	17-4-PH + ENP	17-4-PH + ENP	17-4-PH + ENP
Bolting	L7 / Gr.7	L7 / Gr.7	L7 / Gr.7	L7 / Gr.7
Seat gasket	PTFE	NYLON	VITON	NYLON
Other seals	PTFE + ELGILOY	PTFE + ELGILOY	PTFE + ELGILOY	PTFE + ELGILOY
Seat spring	INCONEL X 750	INCONEL X 750	INCONEL X 750	INCONEL X 750

Trim materials for cryogenic temperature with stem extension FULL STAINLESS STEEL VALVE

LL	54		55	
Rating	150-1500	2500	150-1500	2500
Temperature	-196°+120°C	-196°/+120°C	-196°+120°C	-196°/+120°C
Body	A 182 F316	A 182 F316	A 182 F316	A 182 F316
Closure	A 182 F316	A 182 F316	A 182 F316	A 182 F316
Ball	A 182 F316 + ENP	A 182 F316LN + ENP	A 182 F316 + ENP	A 182 F316LN + ENP
Seat	A 182 F316 + ENP	A 182 F316LN + ENP	A 182 F316 + ENP	A 182 F316LN + ENP
Stem	XM 19 + ENP	INCONEL 718 + ENP	XM 19 + ENP	XM 19 + ENP
Bolting	A 453 Gr.660	A 453 Gr.660	A 453 Gr.660	A 453 Gr.660
Seat gasket	KEL-F	KEL-F	KEL-F	KEL-F
Other seals	PTFE + ELGILOY	PTFE + ELGILOY	PTFE + ELGILOY	PTFE + ELGILOY
Seat spring	INCONEL X 750	INCONEL X 750	INCONEL X 750	INCONEL X 750

Trim materials for high temperature

MM	54		55	
Rating	150-1500	2500	150-1500	2500
Temperature	-29° + 250°C	-29° / + 250°C	-29° + 250°C	-29° / + 250°C
Body	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2
Closure	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2	ASTM A350 Gr.LF2
Ball	ASTM A350 Gr.LF2 + TCC			
Seat	ASTM A350 Gr.LF2 + TCC			
Stem	17-4-PH + ENP	INCONEL 718 + ENP	17-4-PH + ENP	INCONEL 718 + ENP
Bolting	B7 / 2H	B7 / 2H	B7 / 2H	B7 / 2H
Seat gasket	METAL TO METAL	METAL TO METAL	METAL TO METAL	METAL TO METAL
Other seals	PTFE + ELGILOY	PTFE + ELGILOY	PTFE + ELGILOY	PTFE + ELGILOY
Seat spring	INCONEL X 750	INCONEL X 750	INCONEL X 750	INCONEL X 750



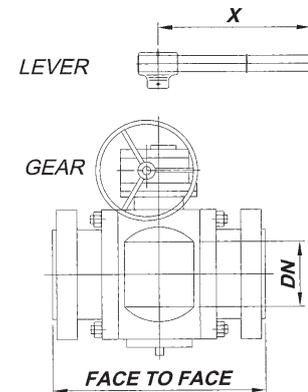
Alternative material selections available upon request.

BALL VALVES TYPE 54 (Overall Dimensions)

TYPE 54 ANSI CLASS 150 (PN 20) Working Pressure 275 Psi (19 bar) - Hydrostatic Shell Test 420 Psi (29 bar)

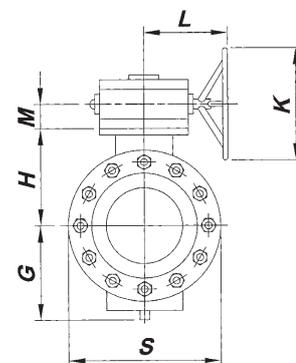
SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	X LEVER	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
1.5"	38	191	165	178	100	110	120	27	125	130	270	3	10	12
2"x1.5"x2"	38	216	178	191	100	110	120	27	125	130	270	3	12	15
2"	51	216	178	191	105	120	120	27	125	145	320	3	15	20
3"x2"x3"	51	283	203	216	105	120	120	27	125	145	320	3	22	25
3"	76	283	203	216	130	145	120	27	125	200	420	3	35	40
4"x3"x4"	76	305	229	241	130	145	120	27	125	200	420	3	37	44
4"	102	305	229	241	155	170	135	27	125	200	520	3	52	63
6"x4"x6"	102	457	394	406	155	170	135	27	125	200	520	3	67	70

CLASS 150 full bore valves are supplied with compact design



TYPE 54 ANSI CLASS 300 (PN 50) Working Pressure 720 Psi (50 bar) - Hydrostatic Shell Test 1080 Psi (75 bar)

SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	X LEVER	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
1.5"	38	191	191	203	100	110	120	27	125	130	270	3	10	16
2"x1.5"x2"	38	216	216	203	100	110	120	27	125	130	270	3	12	18
2"	51	216	216	232	105	120	120	27	125	145	370	3	15	21
3"x2"x3"	51	283	283	298	105	120	120	27	125	145	370	3	22	32
3"	76	283	283	298	130	145	120	27	125	200	570	3	38	51
4"x3"x4"	76	305	305	321	130	145	120	27	125	200	570	3	39	54
4"	102	305	305	321	155	170	120	27	125	240	660	3	56	75
6"x4"x6"	102	457	404	419	155	170	120	27	125	240	660	3	73	99



TYPE 54 ANSI CLASS 400 (PN 64) Working Pressure 960 Psi (66 bar) - Hydrostatic Shell Test 1440 Psi (100 bar)

SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	X LEVER	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
1.5"	38	241	241	241	100	110	120	27	125	130	270	3	12	19
2"x1.5"x2"	38	292	292	295	100	110	120	27	125	130	270	3	14	22
2"	51	292	292	295	105	120	120	27	125	145	370	3	17	25
3"x2"x3"	51	356	356	359	105	120	120	27	125	145	370	3	24	35
3"	76	356	356	359	130	145	120	27	125	200	570	3	40	55
4"x3"x4"	76	406	406	410	130	145	120	27	125	200	570	3	45	63
4"	102	406	406	410	155	170	135	35	125	240	660	5	77	85
6"x4"x6"	102	495	495	498	155	170	135	35	125	240	660	5	80	125



TYPE 54 ANSI CLASS 600 (PN 100) Working Pressure 1440 Psi (99 bar) - Hydrostatic Shell Test 2160 Psi (149 bar)

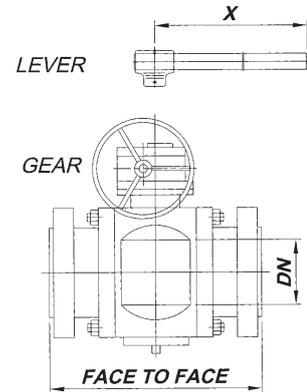
SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	X LEVER	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
1.5"	38	241	241	241	100	110	120	27	125	130	300	3	12	19
2"x1.5"x2"	38	292	292	295	100	110	120	27	125	130	300	3	14	22
2"	51	292	292	295	105	120	120	27	125	145	430	3	18	26
3"x2"x3"	51	356	356	359	105	120	120	27	125	145	430	3	25	37
3"	76	356	356	359	130	145	120	27	125	200	670	3	42	57
4"x3"x4"	76	432	432	435	130	145	120	27	125	200	670	3	50	74
4"	102	432	432	435	155	170	135	35	125	240	760	5	72	101
6"x4"x6"	102	559	559	562	155	170	135	35	125	240	760	5	85	150



BALL VALVES TYPE 54 (Overall Dimensions)

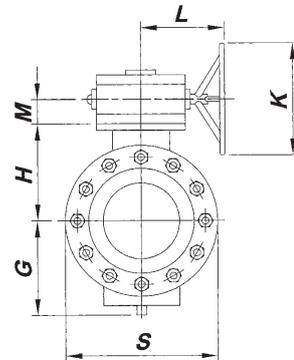
TYPE 54 ANSI CLASS 900 (PN 150) Working Pressure 2160 Psi (149 bar) - Hydrostatic Shell Test 3240 Psi (223 bar)

SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	X LEVER	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
1.5"	38	305	305	305	100	115	120	27	125	130	400	3	20	31
2"x1.5"x2"	38	369	369	372	100	115	120	27	125	130	400	3	22	43
2"	51	369	369	372	115	125	120	27	125	160	600	3	34	58
3"x2"x3"	51	381	381	384	115	125	120	27	125	160	600	3	48	64
3"	76	381	381	384	145	155	135	35	125	210	900	5	69	83
4"x3"x4"	76	457	457	460	145	155	135	35	125	210	900	5	70	107
4"	102	457	457	460	175	195	168	42	250	260	-	9	145	162
6"x4"x6"	102	610	610	613	175	195	168	42	250	260	-	9	147	207



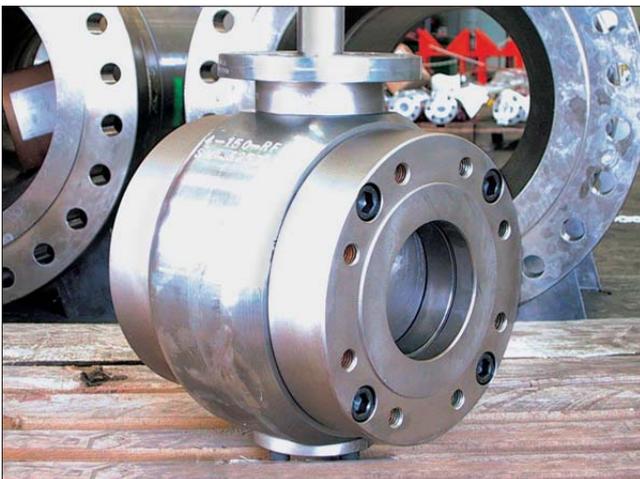
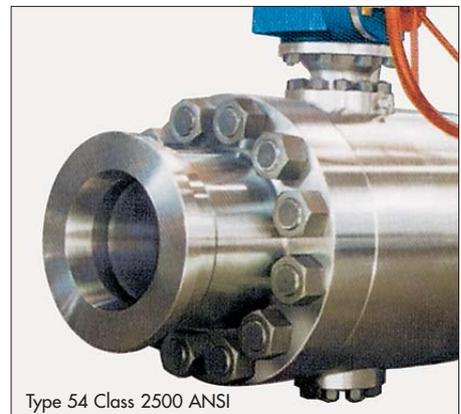
TYPE 54 ANSI CLASS 1500 (PN 250) Working Pressure 3600 Psi (248 bar) - Hydrostatic Shell Test 5400 Psi (372 bar)

SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	X LEVER	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
1.5"	38	305	305	305	100	115	120	27	125	130	400	3	20	31
2"x1.5"x2"	38	369	369	372	100	115	120	27	125	130	400	3	22	43
2"	51	369	369	372	115	125	120	27	125	160	600	3	34	58
3"x2"x3"	51	470	470	473	115	125	120	27	125	160	600	3	48	75
3"	76	470	470	473	145	155	135	35	125	210	900	5	69	97
4"x3"x4"	76	546	546	549	145	155	135	35	125	210	900	5	72	129
4"	102	546	546	549	175	195	168	42	250	260	-	9	146	166
6"x4"x6"	102	705	705	711	175	195	168	42	250	260	-	9	151	270



TYPE 54 ANSI CLASS 2500 (PN 420) Working Pressure 6000 Psi (420 bar) - Hydrostatic Shell Test 9000 Psi (630 bar)

SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ								WE	RF/RTJ
1.5"	32	384	384	387	100	140	120	27	125	204	3	40	62
2"x1.5"x2"	32	451	451	454	100	140	120	27	125	235	3	44	86
2"	44	451	451	454	110	160	135	35	125	235	5	70	118
3"x2"x3"	44	578	578	584	110	160	135	35	125	305	5	98	152
3"	64	578	578	584	140	185	168	42	250	305	9	162	218
4"x3"x4"	64	673	673	683	140	185	168	42	250	356	9	168	282
4"	89	673	673	683	250	200	185	50	300	370	15	322	362
6"x4"x6"	89	914	914	927	250	200	185	50	300	483	15	332	570
6"	133	914	914	927	290	235	250	50	500	483	28	675	750
8"x6"x8"	133	1022	1022	1038	290	235	250	50	500	553	28	860	990



BALL VALVES TYPE 55 (Overall Dimensions)

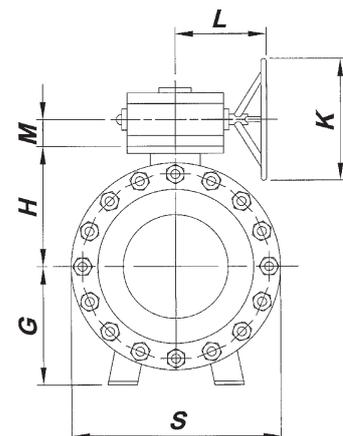
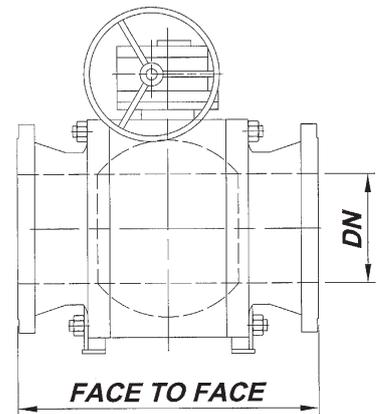
TYPE 55		ANSI CLASS 150 (PN 20)											
		Working Pressure 275 Psi (19 bar) - Hydrostatic Shell Test 420 Psi (29 bar)											
SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ								WE	RF/RTJ
6"	152	457	394	406	305	215	135	35	125	305	5	165	175
8"x6"x8"	152	521	457	470	305	215	135	35	125	400	5	185	195
8"	203	521	457	470	340	255	168	42	250	400	9	285	310
10"x8"x10"	203	559	533	546	340	255	168	42	250	465	9	305	325
10"	254	559	533	546	380	295	185	50	300	465	15	365	395
12"x10"x12"	254	635	610	622	380	295	185	50	300	550	15	385	415
12"	305	635	610	622	420	345	185	50	300	550	15	595	635
16"x12"x16"	305	838	762	775	420	345	185	50	300	675	15	705	745
14"	337	762	686	699	470	375	250	50	500	585	28	696	746
16"	387	838	762	775	510	415	250	50	500	675	28	896	946
20"x16"x20"	387	991	914	927	510	415	250	50	500	835	28	1001	1096
18"	438	914	864	876	545	460	275	50	500	760	42	1342	1422
20"	489	991	914	927	590	495	310	66	600	835	67	1752	1832
24"x20"x24"	489	1143	1067	1080	590	495	310	66	600	990	67	1832	1912
22"	540	♣	♣	♣	635	540	310	66	600	920	67	2165	2235
24"	591	1143	1067	1080	670	575	355	65	600	990	104	3018	3598
30"x24"x30"	591	1397	1295	♣	670	575	355	65	600	1235	104	3548	3638
26"	635	1245	1143	♣	720	625	415	86	600	1060	170	3568	3648
28"	686	1346	1245	♣	755	660	415	86	600	1140	170	4278	4378
30"	737	1397	1295	♣	805	700	415	75	600	1235	178	5268	5378
36"x30"x36"	737	1727	1524	♣	805	700	415	75	600	1445	178	5958	6058
32"	781	1524	1372	♣	845	740	415	75	600	1295	178	5930	6050
34"	832	1626	1473	♣	875	785	415	75	600	1360	178	6400	6600
36"	876	1727	1524	♣	910	825	500	96	600	1445	273	8200	8400
40"	978	♣	♣	♣	1000	905	500	96	600	1625	273	9470	9970
42"	1022	♣	♣	♣	1035	970	500	96	600	1715	273	11200	11800
46"	1118	♣	♣	♣	1135	1080	500	96	600	1895	273	♣	♣
48"	1168	♣	♣	♣	1180	1130	500	96	600	1970	273	♣	♣
56"	1384	♣	♣	♣	1340	1280	518	118	700	2285	710	♣	♣
60"	1461	♣	♣	♣	1435	1400	518	118	700	2450	710	♣	♣

♣ To be confirmed after P/O placement.



TYPE 55		ANSI CLASS 300 (PN 50)											
		Working Pressure 720 Psi (50 bar) - Hydrostatic Shell Test 1080 Psi (75bar)											
SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ								WE	RF/RTJ
6"	152	457	403	419	305	215	168	42	250	318	9	185	195
8"x6"x8"	152	457	403	419	305	215	168	42	250	405	9	195	205
8"	203	521	502	518	340	255	185	50	300	405	15	325	335
10"x8"x10"	203	521	502	518	340	255	185	50	300	470	15	345	365
10"	254	559	568	584	380	295	250	50	500	470	28	475	495
12"x10"x12"	254	559	568	584	380	295	250	50	500	555	28	505	545
12"	305	635	648	664	420	345	250	50	500	555	28	606	646
16"x12"x16"	305	635	648	664	420	345	250	50	500	680	28	716	806
14"	337	762	762	778	470	375	250	50	500	595	28	812	902
16"	387	838	838	854	510	415	275	50	500	680	42	937	1172
20"x16"x20"	387	838	838	854	510	415	275	50	500	845	42	1192	1392
18"	438	914	914	930	545	460	310	66	600	770	67	1430	1620
20"	489	991	991	1010	590	430	355	65	600	845	104	1958	2208
24"x20"x24"	489	991	991	1010	590	430	355	65	600	1000	104	2248	2448
22"	540	1092	1092	1114	635	540	415	86	600	930	170	2548	2798
24"	591	1143	1143	1165	670	575	415	86	600	1000	170	3058	3508
30"x24"x30"	591	1143	1143	1165	670	575	415	86	600	1250	170	3948	4198
26"	635	1245	1245	1270	720	625	415	75	600	1070	178	4050	4450
28"	686	1346	1346	1372	755	660	415	75	600	1150	178	4900	5250
30"	737	1397	1397	1422	805	700	500	96	600	1250	273	5700	6050
36"x30"x36"	737	1397	1397	1422	805	700	500	96	600	1460	273	6000	6350
32"	781	1524	1524	1553	845	740	500	96	600	1310	273	6680	7020
34"	832	1626	1626	1654	875	785	500	96	600	1370	273	7350	7700
36"	876	1727	1727	1756	910	825	500	96	600	1460	273	7550	8010
40"	978	♣	♣	♣	1000	905	500	96	600	1640	273	9360	10590
42"	1022	♣	♣	♣	1035	970	500	96	600	1730	273	11090	12545
46"	1118	♣	♣	♣	1135	1080	500	118	700	1915	710	♣	♣
48"	1168	♣	♣	♣	1180	1130	500	118	700	1990	710	♣	♣
56"	1384	♣	♣	♣	1340	1280	518	118	700	2305	710	♣	♣
60"	1461	♣	♣	♣	1435	1400	518	118	700	2475	710	♣	♣

♣ To be confirmed after P/O placement.



BALL VALVES TYPE 55 (Overall Dimensions)

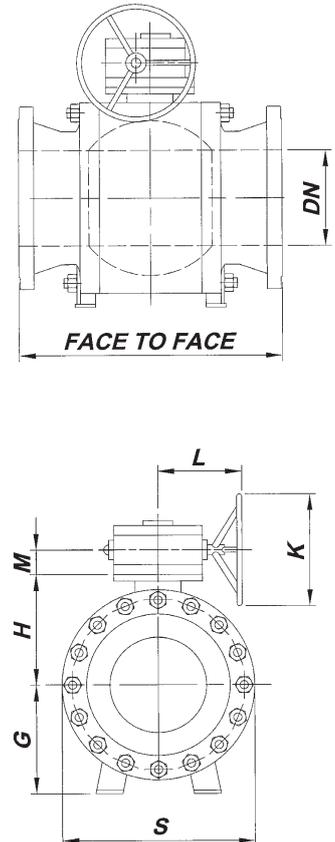
TYPE 55		ANSI CLASS 400 (PN 64)											
		Working Pressure 960 Psi (66 bar) - Hydrostatic Shell Test 1440 Psi (100 bar)											
SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ								WE	RF/RTJ
6"	153	496	496	499	310	215	168	42	250	318	9	180	210
8"X6"X8"	153	597	597	601	310	215	168	42	250	410	9	235	260
8"	204	597	597	601	350	255	185	50	300	410	15	295	340
10"X8"X10"	204	674	674	677	350	255	185	50	300	475	15	260	450
10"	254	674	674	677	390	295	250	50	500	475	28	480	570
12"X10"X12"	254	762	762	766	390	295	250	50	500	560	28	605	700
12"	305	762	762	766	430	345	250	50	500	560	28	685	776
16"X12"X16"	305	902	902	905	430	345	250	50	500	685	28	946	1037
14"	337	826	826	829	475	375	275	50	500	600	30	902	997
16"	388	902	902	905	520	415	310	66	600	685	67	1097	1277
20"X16"X20"	388	1055	1055	1061	520	415	310	66	600	855	67	1462	1642
18"	439	978	978	982	560	460	355	65	600	780	104	1485	1723
20"	489	1055	1055	1061	600	495	415	86	600	855	170	1905	2223
24"X20"X24"	489	1232	1232	1242	600	495	415	86	600	1010	170	2314	2632
22"	540	1143	1143	1153	645	540	415	86	600	940	170	2587	2894
24"	591	1232	1232	1242	685	575	415	86	600	1010	170	2859	3246
30"X24"X30"	591	1524	1524	1537	685	575	415	86	600	1260	170	3850	4100
26"	635	1309	1309	1321	735	625	415	75	600	1085	178	4200	4550
28"	686	1397	1397	1410	770	660	500	96	600	1160	273	5000	5400
30"	737	1524	1524	1537	825	700	500	96	600	1260	273	5712	6371
36"X30"X36"	737	1880	1880	1896	825	700	500	96	600	1475	273	6462	7053
32"	782	1651	1651	1667	865	740	500	96	600	1325	273	6511	6954
34"	832	1778	1778	1794	895	785	500	96	600	1385	273	6727	7659
36"	877	1880	1880	1896	930	825	500	96	600	1475	273	7590	8545
40"	978	♣	♣	♣	1020	905	518	118	700	1655	710	♣	♣
42"	1023	♣	♣	♣	1055	970	518	118	700	1750	710	♣	♣
46"	1118	♣	♣	♣	1160	1080	518	118	700	1935	710	♣	♣
48"	1169	♣	♣	♣	1205	1130	518	118	700	2010	710	♣	♣
56"	1384	♣	♣	♣	1370	1280	518	118	700	2330	710	♣	♣
60"	1461	♣	♣	♣	1460	1400	660	150	700	2500	1160	♣	♣

♣ To be confirmed after P/O placement.



TYPE 55		ANSI CLASS 600 (PN 100)											
		Working Pressure 1440 Psi (99 bar) - Hydrostatic Shell Test 2160 Psi (149 bar)											
SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ								WE	RF/RTJ
6"	152	559	559	562	310	215	168	42	250	356	9	190	245
8"X6"X8"	152	660	660	664	310	215	168	42	250	420	9	240	290
8"	203	660	660	664	350	255	250	50	500	420	28	385	455
10"X8"X10"	203	787	787	791	350	255	250	50	500	508	28	395	485
10"	254	787	787	791	390	295	250	50	600	508	28	431	571
12"X10"X12"	254	838	838	841	390	295	250	50	600	565	28	496	666
12"	305	838	838	841	430	345	275	50	600	565	42	719	867
16"X12"X16"	305	991	991	994	430	345	275	50	600	695	42	996	1146
14"	337	889	889	892	480	375	310	66	600	605	57	922	1092
16"	387	991	991	994	525	415	355	65	600	695	104	1180	1450
20"X16"X20"	387	1194	1194	1200	525	415	355	65	600	860	104	2380	2560
18"	438	1092	1092	1095	565	460	415	86	600	785	170	1718	2548
20"	489	1194	1194	1200	605	495	415	86	600	860	170	2468	2648
24"X20"X24"	489	1397	1397	1407	605	495	415	86	600	1020	170	2798	3048
22"	540	1295	1295	1305	650	540	415	75	600	950	178	2760	3070
24"	591	1397	1397	1407	690	575	415	75	600	1020	178	3650	4000
30"X24"X30"	591	1651	1651	1664	690	575	415	75	600	1275	178	4200	4950
26"	635	1448	1448	1461	740	625	500	96	600	1095	273	4190	5090
28"	686	1549	1549	1562	775	660	500	96	600	1175	273	4990	6190
30"	737	1651	1651	1664	830	700	500	96	600	1275	273	5740	6990
36"X30"X36"	737	2083	2083	2099	830	700	500	96	600	1490	273	7940	9090
32"	781	1778	1778	1794	870	740	500	96	600	1335	273	8590	9940
34"	832	1930	1930	1946	900	785	500	96	600	1400	273	9590	10790
36"	876	2083	2083	2099	940	825	518	118	700	1490	710	♣	♣
40"	978	♣	♣	♣	1030	905	518	118	700	1675	710	♣	♣
42"	1022	♣	♣	♣	1070	970	518	118	700	1765	710	♣	♣
46"	1118	♣	♣	♣	1170	1080	518	118	700	1950	710	♣	♣
48"	1168	♣	♣	♣	1215	1130	518	118	700	2030	710	♣	♣
56"	1384	♣	♣	♣	1380	1280	660	150	700	2355	1160	♣	♣
60"	1461	♣	♣	♣	1475	1400	660	150	700	2525	1160	♣	♣

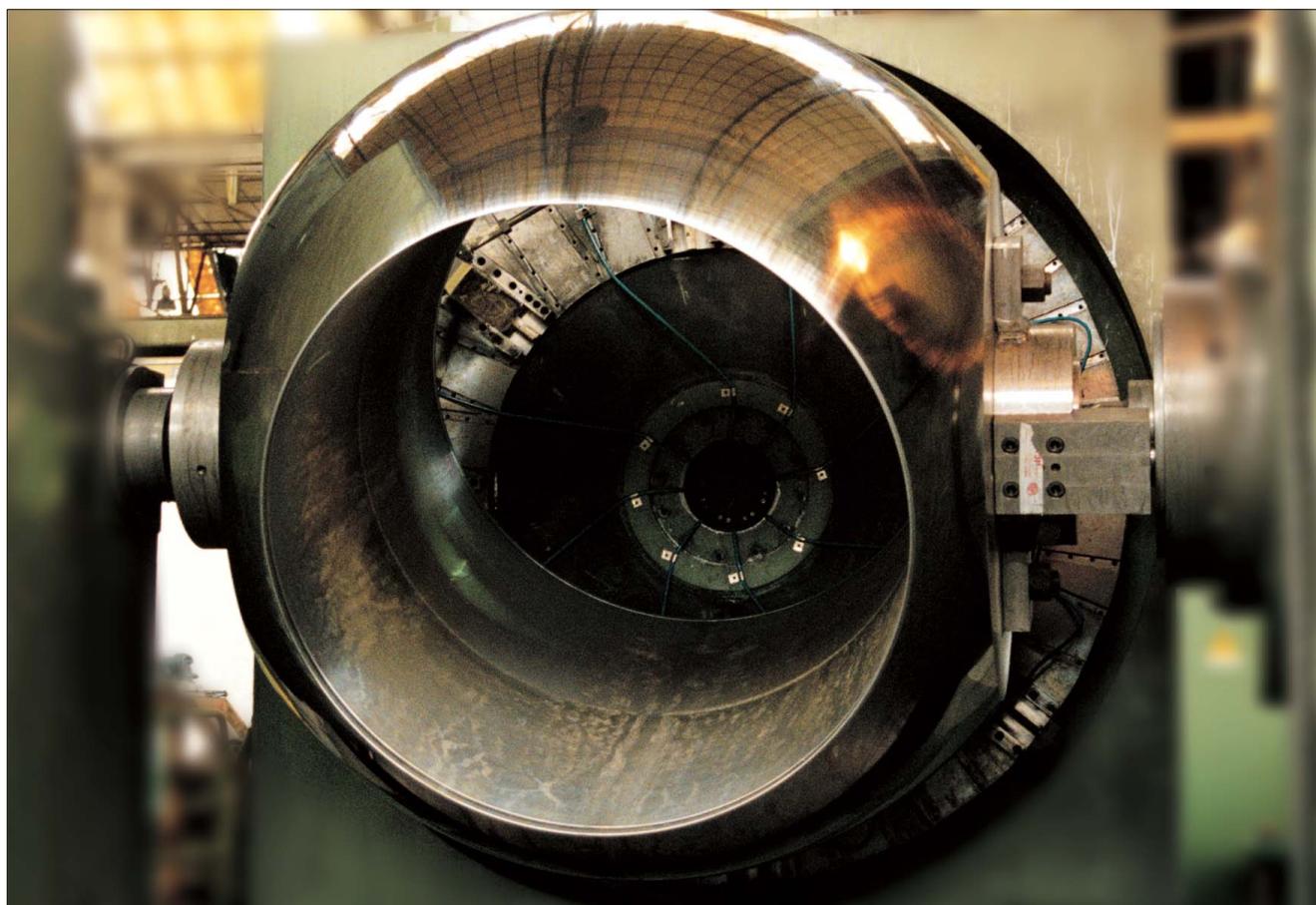
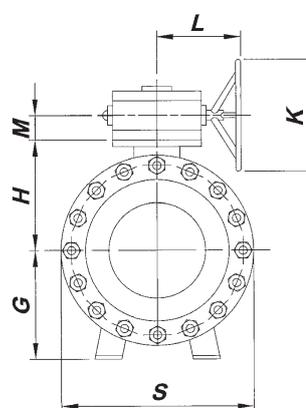
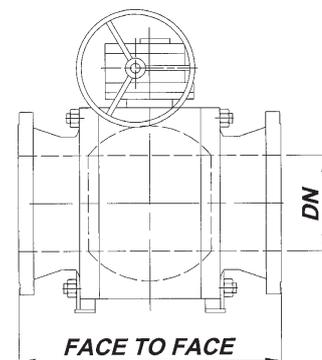
♣ To be confirmed after P/O placement.



BALL VALVES TYPE 55 (Overall Dimensions)

TYPE 55		ANSI CLASS 900 (PN 150)											
		Working Pressure 2160 Psi (149 bar) - Hydrostatic Shell Test 3240 Psi (223 bar)											
SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ								WE	RF/RTJ
6"	152	610	610	613	250	245	185	50	300	381	15	235	325
8"X6"X8"	152	737	737	740	250	245	185	50	300	470	15	280	405
8"	203	737	737	740	290	275	250	50	500	470	28	351	476
10"X8"X10"	203	838	838	841	290	275	250	50	500	547	28	451	546
10"	254	838	838	841	345	320	275	50	500	547	42	742	892
12"X10"X12"	254	965	965	968	345	320	275	50	500	610	42	867	1042
12"	305	965	965	968	390	365	310	66	600	610	57	992	1142
16"X12"X16"	305	1130	1130	1140	390	365	310	66	600	770	57	1252	1422
14"	324	1029	1029	1038	450	390	355	65	600	680	104	1144	1489
16"	375	1130	1130	1140	500	430	415	86	600	770	170	1438	1858
20"X16"X20"	375	1321	1321	1334	500	430	415	86	600	920	170	1703	2423
18"	425	1219	1219	1232	550	490	415	86	600	850	170	2063	2653
20"	473	1321	1321	1334	595	530	415	75	600	920	178	2435	3160
24"X20"X24"	473	1549	1549	1568	595	530	415	75	600	1110	178	2855	4200
22"	524	♣	♣	♣	655	560	500	96	600	1030	273	3000	4000
24"	572	1549	1549	1568	700	620	500	96	600	1110	273	3745	5090
30"X24"X30"	572	♣	♣	♣	700	620	500	96	600	1360	273	4370	6180
26"	619	♣	♣	♣	760	670	500	96	600	1200	273	5430	6750
28"	667	♣	♣	♣	810	710	500	96	600	1290	273	7405	8730
30"	714	♣	♣	♣	835	755	518	118	700	1360	710	9570	10990
36"X30"X36"	714	♣	♣	♣	835	755	518	118	700	1635	710	♣	♣
32"	762	♣	♣	♣	910	815	518	118	700	1460	710	♣	♣
34"	810	♣	♣	♣	960	850	518	118	700	1550	710	♣	♣
36"	857	♣	♣	♣	1020	885	518	118	700	1635	710	♣	♣
40"	956	♣	♣	♣	1120	970	518	118	700	1810	710	♣	♣
42"	1006	♣	♣	♣	1200	1060	518	118	700	1900	710	♣	♣
46"	1102	♣	♣	♣	1280	1110	660	150	700	2070	1160	♣	♣
48"	1149	♣	♣	♣	1330	1150	660	150	700	2160	1160	♣	♣

♣ To be confirmed after P/O placement.

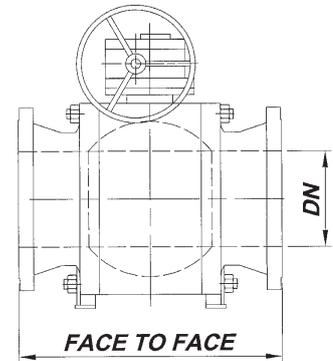


BALL VALVES TYPE 55 (Overall Dimensions)

TYPE 55 **ANSI CLASS 1500 (PN 250)**
 Working Pressure 3600 Psi (248 bar) - Hydrostatic Shell Test 5400 Psi (372 bar)

SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ								WE	RF/RTJ
6"	146	705	705	711	320	280	250	50	500	430	28	376	466
8"X6"X8"	146	832	832	841	320	280	250	50	500	540	28	406	596
8"	194	832	832	841	375	330	250	50	500	540	28	437	672
10"X8"X10"	194	991	991	1000	375	330	250	50	500	655	28	487	837
10"	241	991	991	1000	445	395	310	66	600	655	57	737	1092
12"X10"X12"	241	1130	1130	1146	445	395	310	66	600	770	57	792	1232
12"	289	1130	1130	1146	500	425	355	65	600	770	104	1089	1535
16"X12"X16"	289	1384	1384	1407	500	425	355	65	600	990	104	1144	2053
14"	318	1257	1257	1276	580	500	355	65	600	680	104	2338	3071
16"	362	1384	1384	1407	640	560	415	86	600	990	170	3558	4498
20"X16"X20"	362	1664	1664	1686	640	560	415	86	600	1180	170	4248	5548
18"	407	1537	1537	1559	705	590	415	75	600	1090	178	4800	6000
20"	451	1664	1664	1686	760	725	500	96	600	1180	273	7250	8500
24"X20"X24"	451	1943	1943	1971	760	725	500	96	600	1425	273	9200	10400
22"	502	♣	♣	♣	840	770	500	96	600	1320	273	♣	♣
24"	534	1943	1943	1971	895	815	500	96	600	1425	273	♣	♣
30"X24"X30"	534	♣	♣	♣	895	815	500	96	600	1480	273	♣	♣
26"	597	♣	♣	♣	975	905	518	118	700	1530	710	♣	♣
28"	641	♣	♣	♣	1040	945	518	118	700	1650	710	♣	♣
30"	686	♣	♣	♣	1070	1035	518	118	700	1730	710	♣	♣
36"X30"X36"	686	♣	♣	♣	1070	1035	518	118	700	1800	710	♣	♣
32"	730	♣	♣	♣	1165	1060	518	118	700	1870	710	♣	♣
34"	775	♣	♣	♣	1230	1140	518	118	700	1985	710	♣	♣
36"	819	♣	♣	♣	1310	1180	518	118	700	2100	710	♣	♣

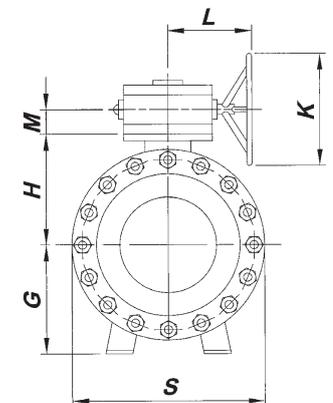
♣ To be confirmed after P/O placement.



TYPE 55 **ANSI CLASS 2500 (PN 420)**
 Working Pressure 6000 Psi (420 bar) - Hydrostatic Shell Test 9000 Psi (630 bar)

SIZE inches	DN	FACE TO FACE			G	H	L	M	K	S	GEAR WEIGHT	BARE STEM VALVE WEIGHT	
		WE	RF	RTJ								WE	RF/RTJ
8"	181	1022	1038	711	385	395	310	66	600	660	67	1660	1970
10"	225	1270	1292	841	435	465	355	65	600	790	104	2490	2990
12"	267	1422	1445	841	500	525	415	86	600	870	170	3450	4130
14"	311	1575	1597	1000	580	630	415	75	600	990	178	4260	5090
16"	352	1683	1702	1000	670	720	641	96	600	1100	273	5140	6160
18"	397	♣	♣	1146	740	810	641	96	600	1215	273	7200	8630
20"	438	♣	♣	1146	825	900	641	96	600	1325	273	9720	11640
24"	♣	♣	♣	1407	950	1020	912	118	700	1325	710	♣	♣

♣ To be confirmed after P/O placement.



SPECIAL APPLICATIONS

Underground Installation

- Stem extension can be required for VALVITALIA ball valve.
- This feature permits use of valves in remote area, e.g. for underground installation.
- VALVITALIA can provide any kind of stem extension, with piping and fittings suitable to raise the body drain, the body vent and the emergency sealant injection fittings up the stand floor.



Subsea service

- Special materials and protective overlays for extended life of service.
- Reliable product in order to provide long lasting service without maintenance.
- Additional sea water gaskets protect stem and external sealing areas.
- Special protective coatings and special sealing caps protect body and bonnet bolts.



Cryogenic service

- Use range up to minus 196 °C.
- Assure the maneuverability at low temperature.
- Materials and dimensions are specially designed to suit low temperature.



Gas test facilities



A Long Experience in Energy Equipment and one Goal:

The Customer's satisfaction.



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