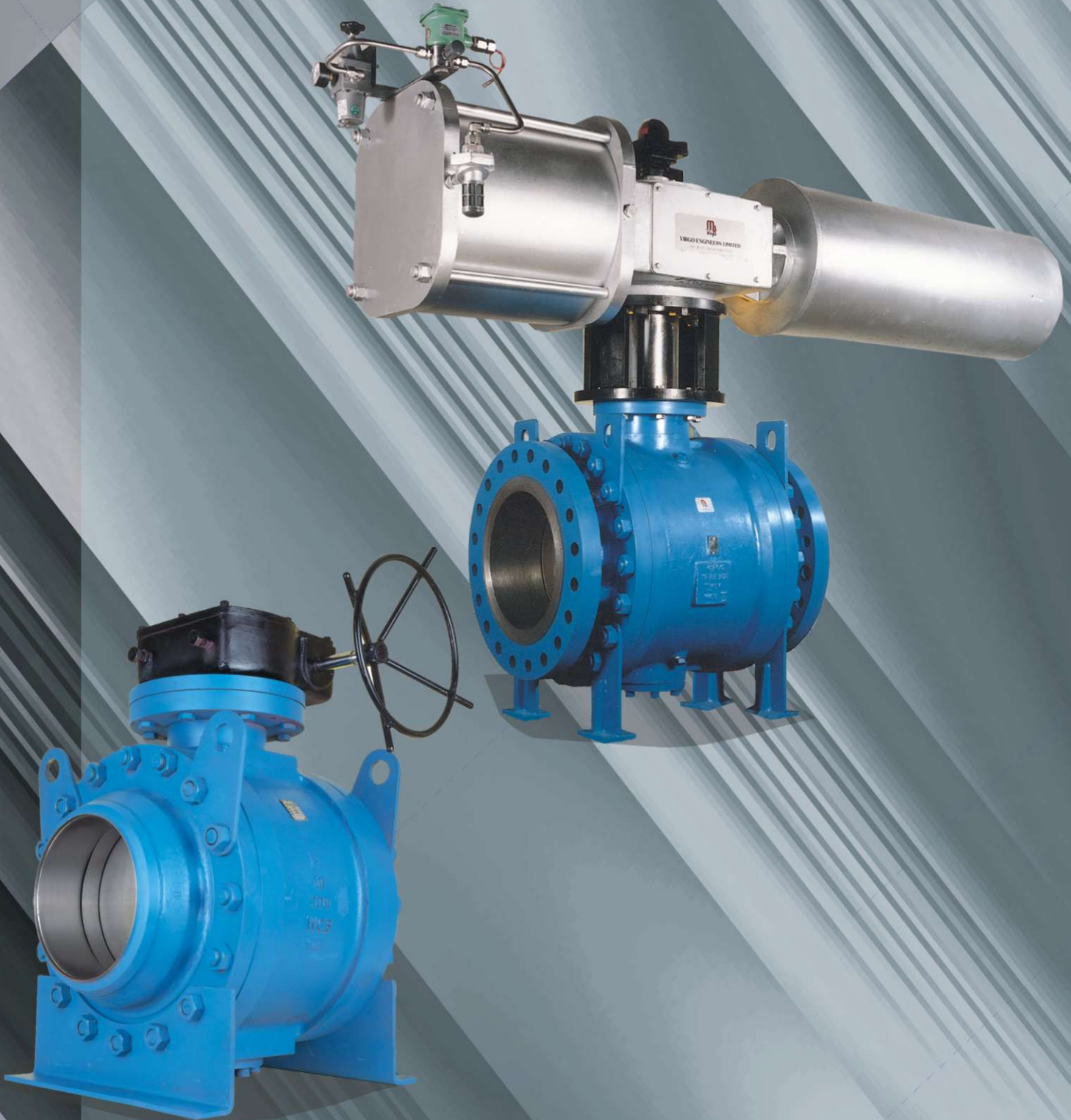


TRUNNION MOUNTED BALL VALVES

Side Entry



Virgo... Lifeline to Your Process

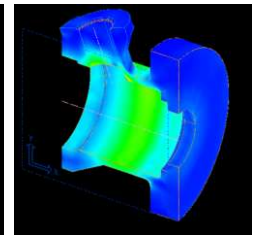
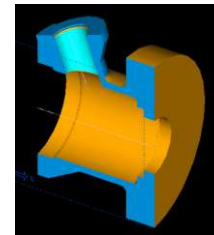
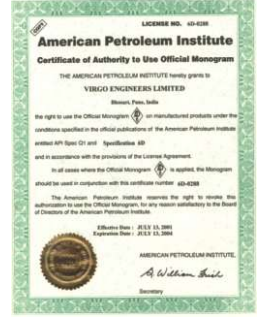
Inspired by the mission of offering world-class solutions in the area of Flow Control, a group of experienced engineers with decades of cumulative experience in design and manufacture of industrial Valves, decided to start business back in 1986.

Virgo Engineers, though started off as Valve automation system designers and manufacturers, soon, reverse integrated into manufacture of Ball Valves, Butterfly Valves and automation accessories. Over a short period of time, Virgo has gained a position of prominence in the field of process control valves and automation systems in varied applications in Chemical, Petrochemical, Oil & Gas, Fertilizer, Pharmaceutical & HVAC industries.

Virgo Valves are designed by using the latest techniques such as the CAD and Finite Element Analysis. State-of-the-art manufacturing technologies, modern quality management methods and competent ERP systems ensure efficient production processes resulting in consistently high quality standards over large quantities of valves.

High quality benchmarks set by Virgo for itself are evident by the ready acceptance of its products in markets all around the world.

This catalog will illustrate in detail Virgo's technical competence and experience in the area of Ball Valves.



Trunnion Mounted Ball Valve Range

Bore	ASME Class	Size											
		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Full	150	--	--	--	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reduced	150	--	--	--	✓	✓	✓	✓	✓	✓	✓	✓	✓
Full	300	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reduced	300	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Full	600	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reduced	600	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Full	900	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	--	--
Reduced	900	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	--	--
Full	1500	✓	✓	✓	✓	✓	✓	✓	--	--	--	--	--
Reduced	1500	✓	✓	✓	✓	✓	✓	✓	--	--	--	--	--

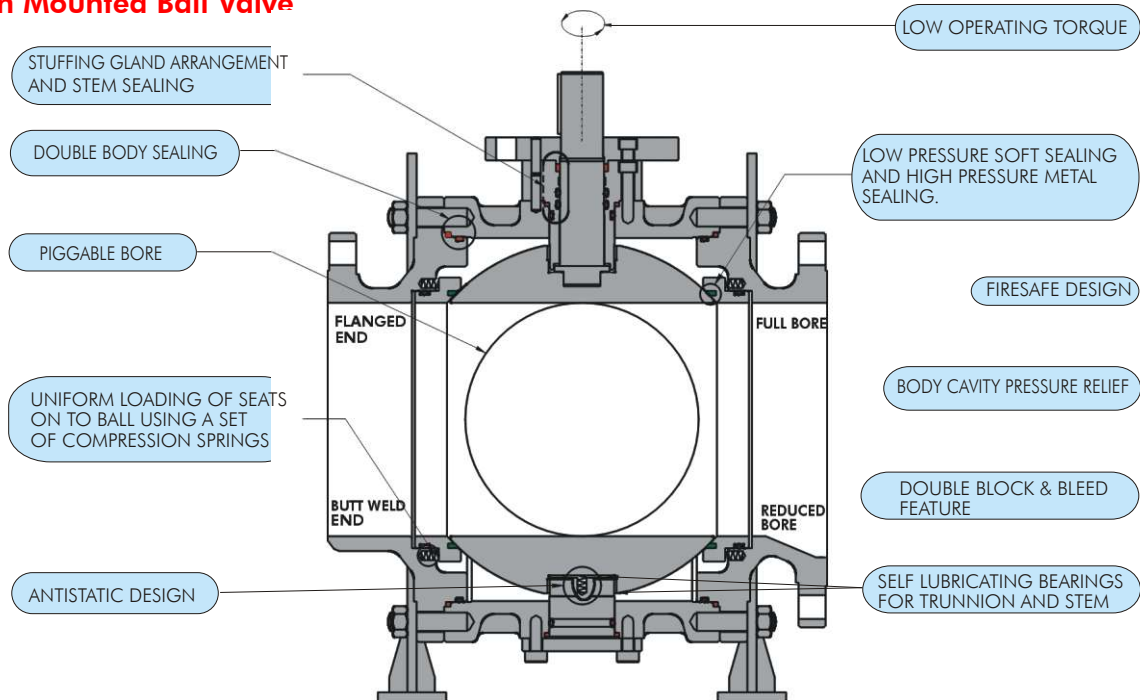
• Sizes not listed above can be offered on request

Design & Testing Standards

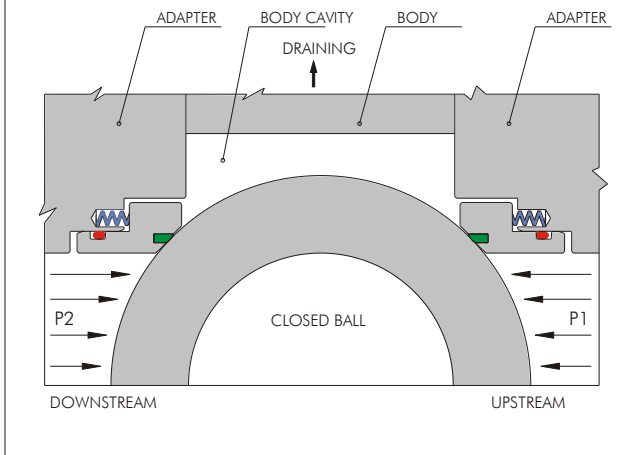
- Virgo valves are designed and manufactured as per ASME B 16.34, API 6D & BS 5351. These standards cover Pressure - Temperature ratings, minimum shell thickness, bore diameter for each size/class.
- NACE MR 01-75 compliant
- Castings inspection as per MSS-SP 53, 54, 55, 59, 93 & 94
- Actuator mounting pad on the valve is as per ISO 5211
- Fugitive emission qualification as per TA - Luft / US clean air act and MESIC.
- Other applicable standards :
 - Face to Face : ASME B 16.10 / API 6D
 - Flange dimensions : ASME B 16.5
 - Butt welded valve ends : ASME B 16.25
 - Pressure tests : API 598 / BS 6755 Part I / API 6D
 - Fire safety : API 607 / API 6FA / BS 6755 Part II
 - Drain / Vent / Bypass : MSS SP 45 / API 6D

Quality Systems/Certifications - ISO 9001-2000, API 6D -Q1, PED and GOST.

Trunnion Mounted Ball Valve

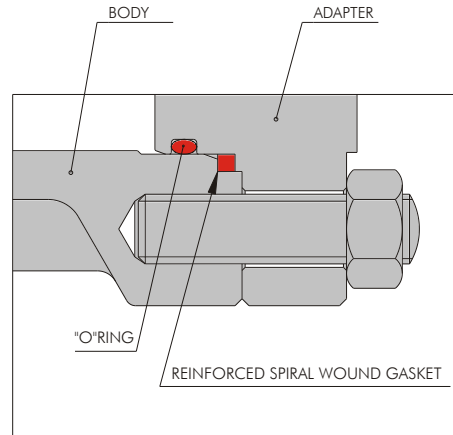


Double Block And Bleed



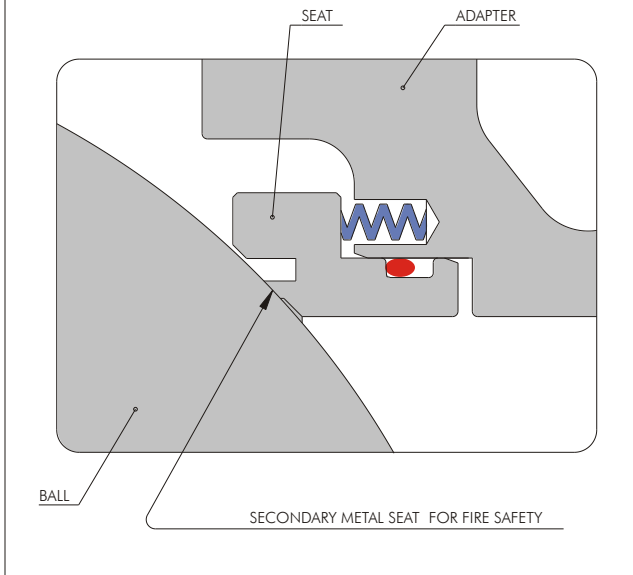
- Spring Loaded floating seats maintain contact with the ball and provide tight shut off even at low pressure differential. Independent sealing of Upstream and downstream sides facilitate draining of fluid from the body cavity, and thus the double block and bleed operation.

Double Body Sealing



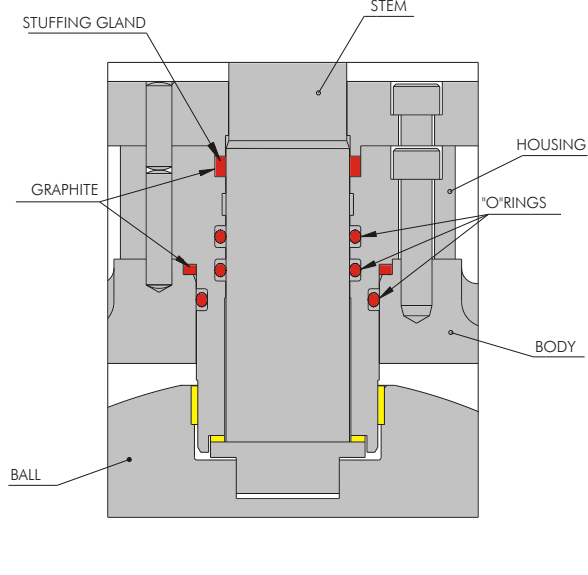
- Double Seal Combination of O-ring and Spiral wound gasket ensures perfect body joint Sealing. Virgo Valves therefore meet or exceed the fugitive emission requirements across wide range of Pressure and Temperatures applications. Valves are suitable for both above and underground installations.

Fire Safe Design



- In the event of fire, soft insert gets burnt and the Spring-loaded seats ensure metal to metal sealing.

Multiple Stem Sealing.



- A triple sealing arrangement in stem area prevents leakage to atmosphere. It includes double sealing with O-rings and graphite seal at the top of stem housing. The blow out proof stem enables positive stem retention.

Corrosion Protection and Painting

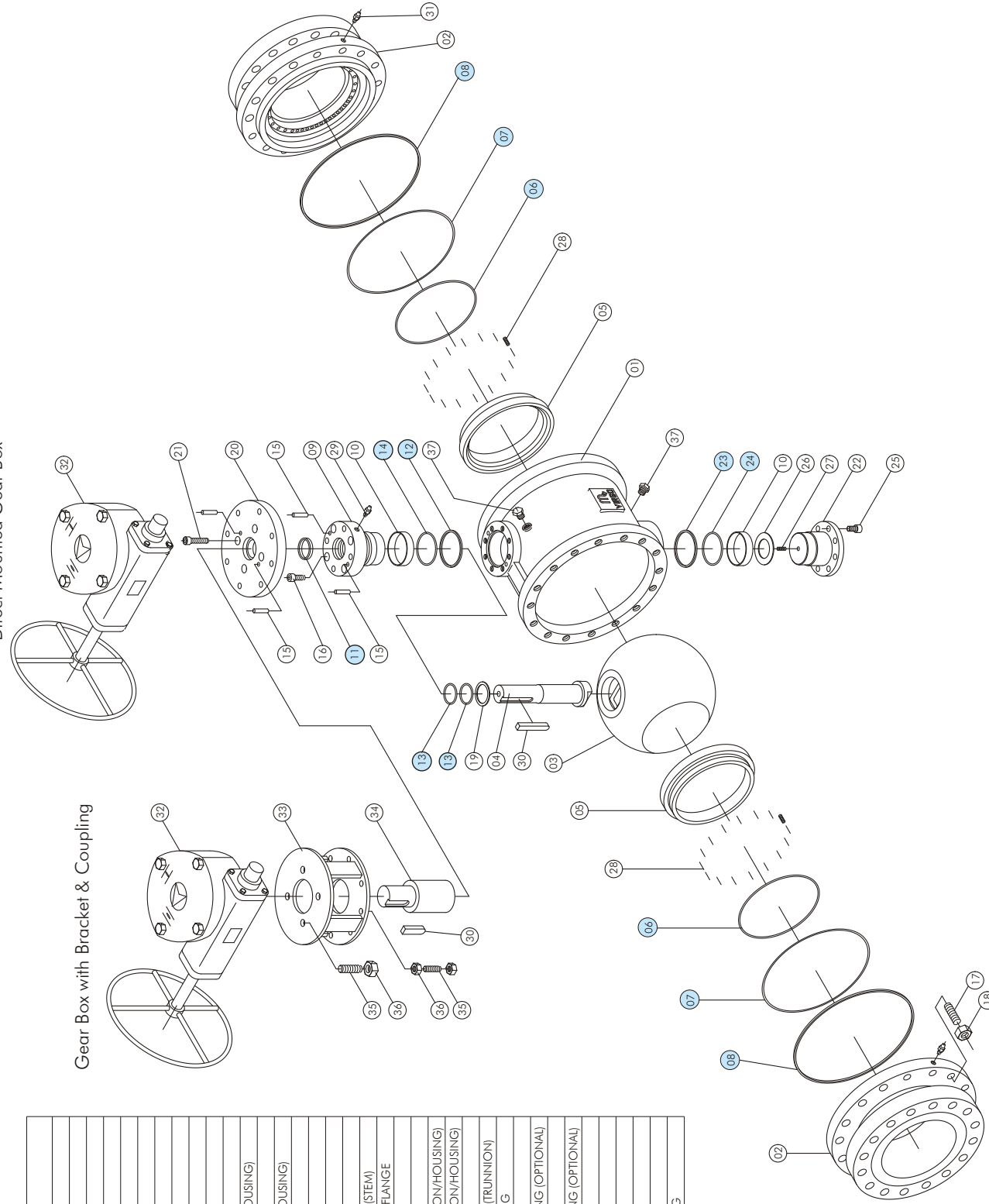
All castings are shot blasted and are subjected to de-watering oil coats. Carbon steel valves are Zinc phosphated and internally lacquered before final assembly.

Valves are thoroughly cleaned and primer coated with Epoxy zinc Phosphate primer, followed by a final coat of Epoxy blue shade applied in semi gloss finish.

Valves are shipped in vapor corrosion impregnated paper bags with desiccant pouches to prevent corrosion due to saline environment.

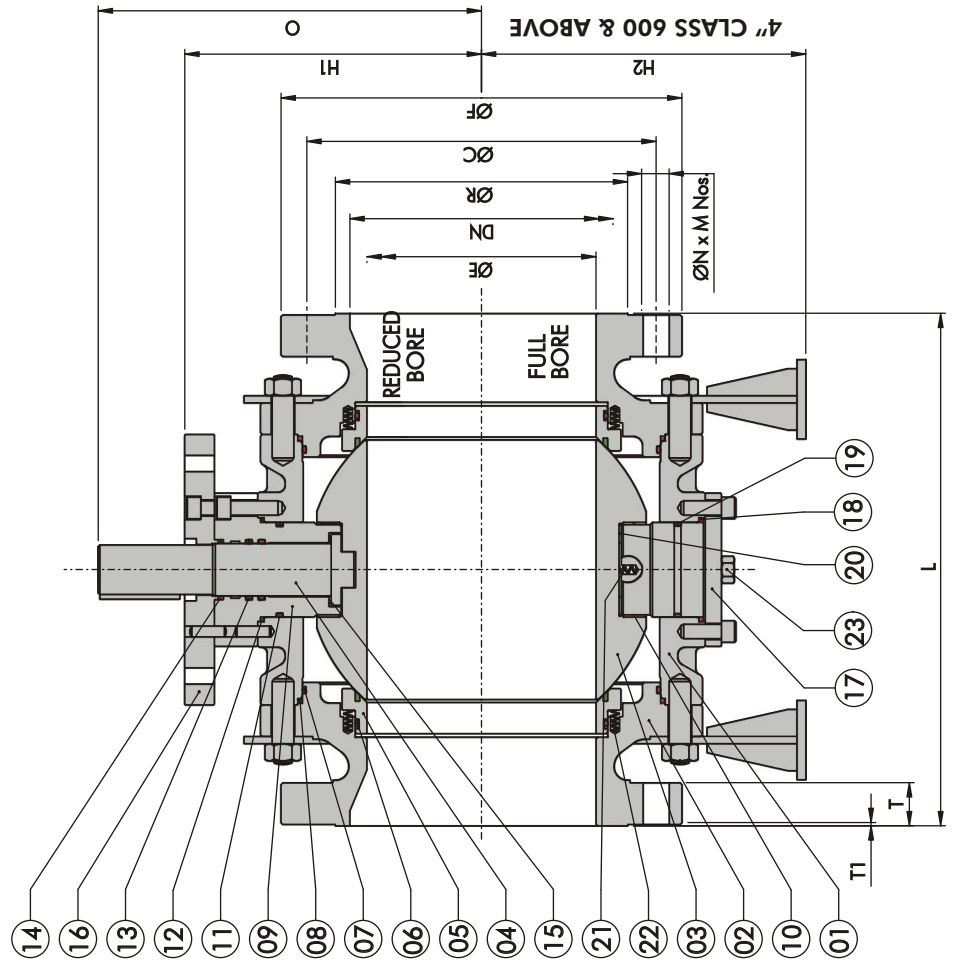
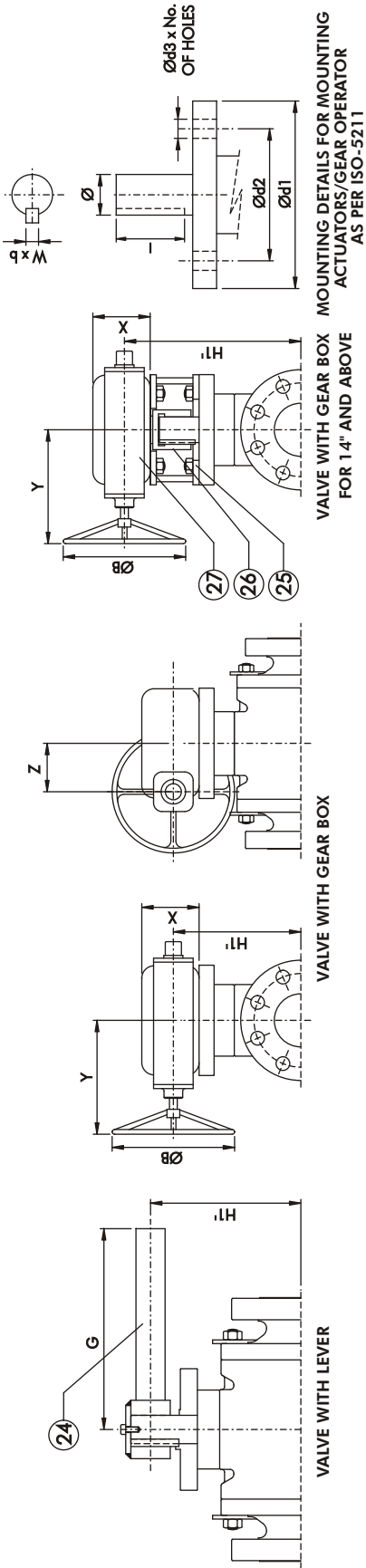
Direct Mounted Gear Box

Gear Box with Bracket & Coupling



Part List	
01	BODY
02	BODY ADAPTER
03	BALL
04	STEM
05	SEAT-INSERT
06	O RING (SEAT)
07	O RING (B/A)
08	BODY GASKET
09	STEM HOUSING
10	BUSH BEARING
11	GASKET (STEM)
12	GASKET (STEM HOUSING)
13	O RING (STEM)
14	O RING (STEM HOUSING)
15	DOWEL PIN
16	CAP SCREW
17	STUDS
18	NUTS
19	THRUST WASHER (STEM)
20	ISO MOUNTING FLANGE
21	CAP SCREW
22	TRUNNION
23	GASKET (TRUNNION/HOUSING)
24	O RING (TRUNNION/HOUSING)
25	CAP SCREW
26	THRUST WASHER (TRUNNION)
27	ANTISTATIC SPRING
28	SPRINGS (SEAT)
29	INJECTION FITTING (OPTIONAL)
30	KEY
31	INJECTION FITTING (OPTIONAL)
32	GEAR OPERATOR
33	BRACKET
34	COUPLING
35	STUDS
36	NUTS
37	DRAIN/VENT PLUG

Those marked in part list are recommended as spares.



ITEM Number	Part Name
01	BODY
02	BODY ADAPTER
03	BALL
04	STEM
05	SEAT + INSERT
06	O RING (SEAT)
07	O RING (BODY ADAPTER)
08	GASKET (BODY)
09	STEM HOUSING
10	BUSH BEARING
11	O RING (STEM HOUSING)
12	GASKET (STEM HOUSING)
13	O RING (STEM)
14	GASKET (STEM)
15	STEM THRUST WASHER
16	ISO MTG FLANGE
17	TRUNNION
18	GASKET (TRUNNION)
19	O RING (TRUNNION)
20	TRUNNION THRUST WASHER
21	ANTISTATIC SPRING
22	SEAT SPRING
23	DRAIN PLUG/NEEDLE VALVE
24	HAND LEVER
25	BRACKET
26	COUPLING
27	GEAR BOX

Dimensional Details, Valve Operation



ASME 1500

Dimensions in "mm"

SIZE	DN	ØE	L			ØC	ØN	M	ØR	T	T1	H1	H1'	H2	O	G	ØB	X	Y	Z	ISO 5211	Ød	Ød1	Ød2	Ød3	Nos of Holes	Keyway details			Approx Weights (Kgs)			
			FE	BWE	RTJ																						w	b	l	Bare stem	Operator Lever	Gear	
50 x 38	51	38	368	368	371	216	165	25	8	92	44.5	6.4	110	186	85	143	635	-	-	-	F10	22	125	102	10	4	6	6	31	50	1.8	-	
50	51	51	368	368	371	216	165	25	8	92	44.5	6.4	149	176	120	192	700	-	-	-	F10	25	125	102	18	4	8	7	42	72	2.3	-	
80 x 50	76	51	470	470	473	267	203	32	8	127	54.1	6.4	149	176	120	192	700	-	-	-	F10	25	125	102	18	4	8	7	42	90	2.3	-	
80	76	76	470	470	473	267	203	32	8	127	54.1	6.4	199	246	150	259	-	450	108	365	84	F16	40	210	165	22	4	12	8	45	110	-	23
100 x 80	102	76	546	546	549	311	241	35	8	157	60.2	6.4	199	246	150	259	-	450	108	365	84	F16	40	210	165	22	4	12	8	45	154	-	23
100	102	102	546	546	549	311	241	35	8	157	60.2	6.4	214	320	180	275	-	450	121	394	102	F16	40	210	165	22	4	12	8	50	169	-	30
150 x 100	146	102	705	705	711	394	318	38	12	216	88.9	6.4	214	320	180	275	-	450	121	394	102	F16	40	210	165	22	4	12	8	50	290	-	30
150	146	146	705	705	711	394	318	38	12	216	88.9	6.4	305	470	287	397	-	500	170	604	226	F25	55	300	254	18	8	16	10	70	570	-	92
200 x 150	194	146	832	832	841	483	394	44	12	270	98.3	6.4	305	470	287	397	-	500	170	604	226	F25	55	300	254	18	8	16	10	70	625	-	92
200	194	194	832	832	841	483	394	44	12	270	98.3	6.4	366	487	390	504	-	600	216	606	281	F25	75	300	254	18	8	20	12	110	1010	-	114

ASME 1500

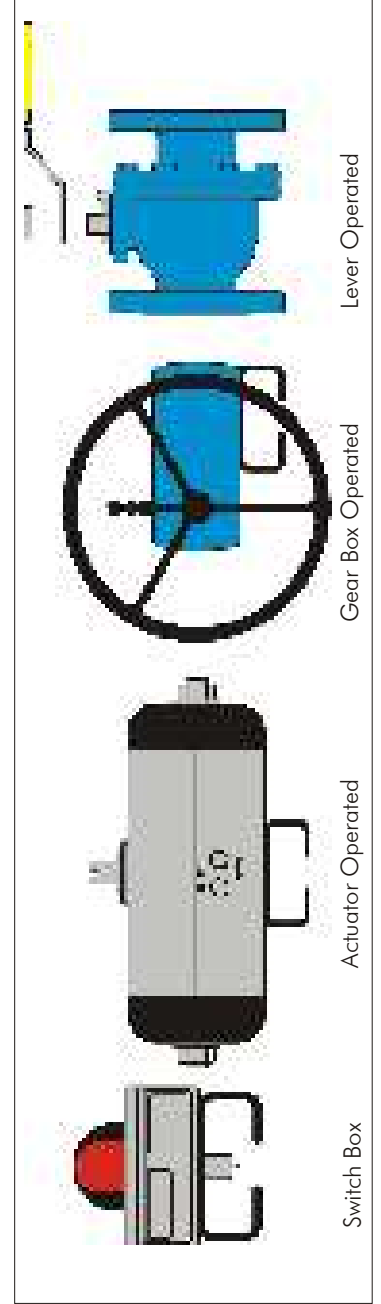
Dimensions in "inch"

SIZE	DN	ØE	L			ØF	ØN	M	ØR	T	T1	H1	H1'	H2	O	G	ØB	X	Y	Z	ISO 5211	Ød	Ød1	Ød2	Ød3	Nos of Holes	Keyway details			Approx Weights (Lbs)			
			FE	BWE	RTJ																						w	b	l	Bare stem	Operator Lever	Gear	
2" x 1-1/2"	2.00	1.50	14.50	14.50	14.60	8.50	6.50	1.00	8	3.62	1.75	0.25	4.33	7.30	3.35	5.63	25.00	-	-	-	F10	1	4.9	4	0.39	4	0.2	0.2	1.2	110	4	-	
2"	2.00	2.00	14.50	14.50	14.60	8.50	6.50	1.00	8	3.62	1.75	0.25	5.85	6.91	4.72	7.55	25.76	-	-	-	F10	1	4.9	4	0.71	4	0.3	0.3	1.7	158.4	5	-	
3" x 2"	3.00	2.00	18.50	18.50	18.62	10.50	8.00	1.25	8	5.00	2.13	0.25	5.85	6.91	4.72	7.55	25.76	-	-	-	F10	1	4.9	4	0.71	4	0.3	0.3	1.7	198	5	-	
3"	3.00	3.00	18.50	18.50	18.62	10.50	8.00	1.25	8	5.00	2.13	0.25	7.83	9.70	5.91	10.20	-	17.72	4.25	14.4	3.3	F16	1.6	8.3	6.5	0.87	4	0.5	0.3	1.8	242	-	50.60
4" x 3"	4.00	3.00	21.50	21.50	21.62	12.25	9.50	1.38	8	6.19	2.37	0.25	7.83	9.70	5.91	10.20	-	17.72	4.25	14.4	3.3	F16	1.6	8.3	6.5	0.87	4	0.5	0.3	1.8	338.8	-	50.60
4"	4.00	4.00	21.50	21.50	21.62	12.25	9.50	1.38	8	6.19	2.37	0.25	8.43	12.60	7.09	10.83	-	17.72	4.76	15.5	4	F16	1.6	8.3	6.5	0.87	4	0.5	0.3	2	371.8	-	66.00
6" x 4"	5.75	4.00	27.75	27.75	28.00	15.50	12.50	1.50	12	8.50	3.50	0.25	8.43	12.60	7.09	10.83	-	17.72	4.76	15.5	4	F16	1.6	8.3	6.5	0.87	4	0.5	0.3	2	638	-	66.00
6"	5.75	5.75	27.75	27.75	28.00	15.50	12.50	1.50	12	8.50	3.50	0.25	12.00	18.50	11.30	15.61	-	19.69	6.69	23.8	8.9	F25	2.2	12	10	0.71	8	0.6	0.4	2.8	1254	-	202.40
8" x 6"	7.64	5.75	32.75	32.75	33.12	19.00	15.50	1.75	12	10.62	3.87	0.25	12.00	18.50	11.30	15.61	-	19.69	6.69	23.8	8.9	F25	2.2	12	10	0.71	8	0.6	0.4	2.8	1375	-	202.40
8"	7.64	7.64	32.75	32.75	33.12	19.00	15.50	1.75	0	10.62	3.87	0.25	14.41	19.17	15.35	19.84	-	23.62	8.50	23.9	11	F25	3	12	10	0.71	8	0.8	0.5	4.3	2222	-	250.80

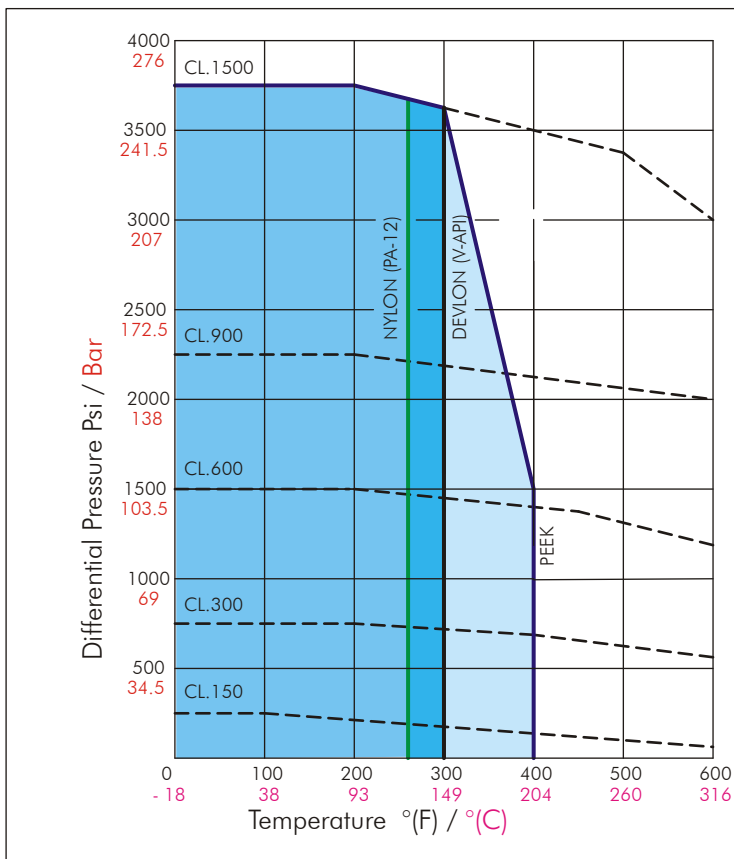
Legend :- RF = Raised Face, BWE = Butt Weld End, RTJ = Ring Type Joint.

Valve Operation :

Virgo offers an option of operating the valve by hand lever, gear operator or actuator. Length of lever and diameter of handwheel (maximum 31-1/2") of gear operator are designed to keep the operating force less than 80 lb. All valves have a stopper for fully opened and closed position alongwith indicator to show position of ball port.



Pressure Temperature Ratings & Torque Values



NOTE :-

Pressure - temperature seat ratings of valves are as given in the graph for body material ASTM A 216 - Gr.WCB. With the exception of body seat rings and primary soft seals, all valve components are capable of withstanding the pressure - temperature ratings as specified in ASME B 16.34, BS 1560 : Part II, BS 4504 : Part I or BS 5351 as applicable.

Temperature Limits:

		Lower limit Deg.F/Deg.C	Upper limit Deg.F/Deg.C
Body Matl.	WCB	-20 -29	1000 538
	LCB	-50 -46	650 343
	CF8	-425 -254	1500 816
	CF8M	-425 -254	1500 816
Seat	NYLON (PA-12)	-50 -46	As per Graph
	DEVLON (V-API)	-50 -46	As per Graph
	PEEK**	-50 -46	As per Graph

** For application above 400° F consult Virgo Engineers Ltd.

Note:- These ratings are a guide for general service. Please consult VIRGO Engineers Ltd. for specific recommendations.

Torque Values in Nm / Lbs-in

SIZE DN(NPS)	TORQUE TYPE	PRESSURE CLASS									
		150		300		600		900		1500	
		Nm	Lbs - in	Nm	Lbs - in	Nm	Lbs - in	Nm	Lbs - in	Nm	Lbs - in
1 1/2" (40)	BTO	54	478	81	717	99	876	111	982	162	1434
	ETC	43	381	65	575	79	699	89	788	130	1151
2" (50)	BTO	69	611	85	752	110	974	135	1195	285	2522
	ETC	55	487	68	602	88	779	108	956	228	2018
3" (80)	BTO	172	1522	239	2115	323	2859	436	3859	605	5354
	ETC	138	1221	191	1690	258	2283	349	3089	484	4283
4" (100)	BTO	275	2434	363	3213	465	4115	605	5354	931	8239
	ETC	220	1947	290	2567	372	3292	484	4283	744	6584
6" (150)	BTO	475	4204	756	6691	1211	10717	1664	14726	2580	22833
	ETC	380	3363	605	5354	968	8567	1331	11779	2064	18266
8" (200)	BTO	741	6558	1175	10399	1878	16620	2582	22851	4001	35409
	ETC	593	5248	940	8319	1503	13302	2066	18284	3200	28320
10" (250)	BTO	991	8770	1535	13585	2412	21346	3290	29117	5063	44808
	ETC	793	7018	1228	10868	1930	17081	2632	23293	4050	35843
12" (300)	BTO	1241	10983	1868	16532	2879	25479	4250	37613	-	-
	ETC	993	8788	1494	13222	2303	20382	3400	30090	-	-
14" (350)	BTO	2223	19674	3276	28993	5434	48091	-	-	-	-
	ETC	1778	15735	2621	23196	4347	38471	-	-	-	-
16" (400)	BTO	2984	26408	4466	39524	6877	60861	-	-	-	-
	ETC	2387	21125	3573	31621	5502	48693	-	-	-	-
18" (450)	BTO	4150	36728	6529	57782	10567	93518	-	-	-	-
	ETC	3320	29382	5223	46224	8453	74809	-	-	-	-
20" (500)	BTO	5075	44914	8732	77278	15460	136821	-	-	-	-
	ETC	4060	35931	6986	61826	12368	109457	-	-	-	-
24" (600)	BTO	9740	86199	15364	135971	24570	217445	-	-	-	-
	ETC	7792	68959	12291	108775	19656	173956	-	-	-	-

B.T.O. = Break to open torque (under rated pressure)

E.T.C.= End to close torque (Reseating Torque)

NOTES :-

1) Torques Values are in Nm and are for Primary Soft Seated TMBVs with Seat Insert Material as Nylon PA - 12/Devlon.

2) Torque Values for Primary Metal Secondary Soft Seated TMBVs are 15% higher than the corresponding above mentioned values.

3) Torque Values are at Ambient Temperature, media being clear water

4) For Reduced Bore Valves, take torque values corresponding to the lower size (Ball Bore size) e.g. : for 14" x 10" Reduced Bore Valve, take torque values corresponding to 10".

Material of Construction

Part	Material Options
BODY	ASTM - A 216 WCB / A351 CF8 / A 351 CF8M / A 351 CF3M / A 352 LCB / A 217 CA15
BODY ADAPTER	ASTM - A 216 WCB / A351 CF8 / A 351 CF8M / A 351 CF3M / A 352 LCB / A 217 CA15
BALL	ASTM - A 216 WCB + ENP COATED / A351 CF8 / A 351 CF8M / A 351 CF3M / A 217 CA15
STEM HOUSING	ASTM - A 216 WCB / A351 CF8 / A 351 CF8M / A 351 CF3M / A 352 LCB / A 217 CA15
STEM	ASTM - A479 SS304/A479 SS316 /A479 SS304L /A479 SS316L /A182 F304 /A182 F316 /A182 F410 /A564 TYPE 630/A479 SS410
SEAT	ASTM - A 105 + ENP / A 182 F316 / AISI 410 / A 479 SS410
SEAT INSERT	RPTFE / NYLON / PEEK / DEVLON
STEM GASKET	GRAPHITE
BODY GASKET	GRAPHITE / REINFORCED SS316 GRAPHITE
STEM H. GASKET	GRAPHITE
TRUNNION GASKET	GRAPHITE
O RING	VITON
TRUNNION	ASTM - A479 SS304 /A479 SS316 /A479 SS304L /A479 SS316L /A182 F304 /A182 F316 /A182 F410 /A564 TYPE 630/A105
ISO MTG. FLANGE	STEEL
SPRINGS	ASTM -A 313 SS302 / ASTM B637 (INCONEL 750)
THRUST WASHER	PHOSPHOR BRONZE / A 479 SS316 + BRONZE + PTFE COATED / A 479 SS316 + PTFE COATED
STUDS / BOLTS/ CAP SCREW	ASTM - A 320 L7 / A 193 B8 / A 193 B8M / A 193 B7 / A 193 Gr. B7M
NUT	ASTM - A 194 Gr.7 / A 194 Gr8M / A 194 2H / A 194 Gr.2HM
BEARING	A 479 SS316 + PTFE COATED
COUPLING	STEEL + PLATING
SUPPORT STAND	STEEL
LIFTING HOOK	STEEL
BRACKET	STEEL
DRAIN PLUG / NEEDLE VALVE	STANDARD

Note : Materials not listed above can be offered on request

Fire Test

Virgo Ball Valves have been designed to meet the requirements of API 607 (Edition IV) / API 6 FA / BS 6755 - Part II. Fire safe tests have been witnessed and certified by Lloyd's Register.



Type of Valve	Sizes	Rating	Standard
TRUNNION MOUNTED THREE PIECE DESIGN	10" TO 24"	150 #, 300#	API 6FA / BS 6755 PART II
	8" TO 20"	400#, 600#	API 6FA / BS 6755 PART II
	6" TO 24"	150#, 300#	API 607 (EDITION IV)
	6" & LARGER	400#, 600#	API 607 (EDITION IV)
	2" & LARGER	900#, 1500#	

Project: UNKNOWN Product/Service: PUN 98316074

Client: VIRGO ENGINEERS LIMITED, PUNE City: PUNE

Client's Order Number: Date: 22 NOVEMBER 1998

Project Status: TBC COMPLETE Test Name: TBC COMPLETE

Signature Date: 09 NOVEMBER 1998 Date: 19 NOVEMBER 1998

This certificate is issued to VIRGO ENGINEERS LIMITED, PUNE, BALL VALVE DIVISION, to certify that the undersigned Surveyor, did at their request, attend their Ball Valve works on the aforementioned date for the purpose of witnessing FIRE TEST IN ACCORDANCE WITH API STANDARD 607, FOURTH EDITION, 1 MAY 1995.

1. VIRGO MAKE, 8" 150 Class, FULL BORE, SOFT SEATED, FLANGED END, TRUNNION MOUNTED BALL VALVE WITH GEAR BOX TO DRAWING NO. D4.0025.00.00.

The monitoring activities included:

1. Review of documented Fire Test procedure, material specification and manufacturing specifications.
2. Witnessing the fire test.
3. Review and Endorsement of test results.

The results of the tests and inspection are recorded in the following documents.

1. Document No: IS/607/99

It is accordingly certified that the above valve was tested in accordance with the requirement of API STANDARD 607, FOURTH EDITION, MAY 1995 and the results obtained met the requirements of the specification.

S. BALAMAJUMDAR
 SURVEYOR TO LLOYD'S REGISTER

END OF REPORT

NOTICE: This certificate is subject to the terms and conditions thereof, which form part of this certificate.
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 LLOYD'S REGISTER INDUSTRIAL SERVICES (INDIA) PVT. LTD.
 100, ANANDKUMAR CHOWK II FLOOR, KALANDIA, PATNA-800 006.
 Regd. Office: 100, ANANDKUMAR CHOWK II FLOOR, KALANDIA, PATNA-800 006.

Product Selection Code



Design	Construction	End Connection	Rating	Bore	Body	Ball	Seat/Seat Insert	Fire Safety	Operation	Pattern	Special Req.
N	2 3	RF RS FF FS RT SW SN BS NP BW DN BT	1 2 3 4 5 6 7 8 9	F R	C 1 L 4 6 3 5 A O	C 1 L 4 6 3 5 A O	T G C F B N D P E L	F S	B G L A	SP LP	XX

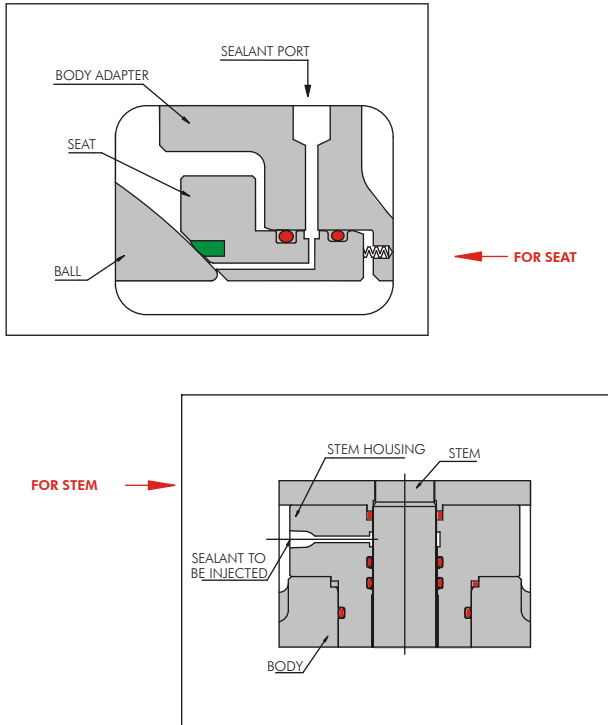
<p>Design</p> <p>N - Trunnion mounted ball valve</p> <p>Construction</p> <p>2 - Two Piece 3 - Three Piece</p> <p>End connection & finish</p> <p>RF - Flanged raised face serrated RS - Flanged raised face smooth FF - Flanged flat face serrated FS - Flanged flat face smooth RT - Flanged RTJ SW - Socket weld SN - Socket weld with 4" nipple extension BS - Screwed BSP NP - Screwed NPT BW - Butt weld</p> <p>Rating</p> <p>1 - 150# 2 - 1500# 3 - 300# 4 - 400# 5 - 2500# 6 - 600# 8 - 800# 9 - 900#</p>	<p>Bore</p> <p>F - Full Bore R - Reduced Bore</p> <p>Body</p> <p>C - WCB 1 - A105 L - LCB / LCC 4 - CF8/SS304 6 - CF8M / SS316 3 - CF3 / SS304L 5 - CF3M / SS316L A - CA 15 / SS410 O - Other than above</p> <p>Ball</p> <p>C - WCB 1 - A105 L - LCB 4 - CF8/SS304 6 - CF8M / SS316 3 - CF3 / SS304L 5 - CF3M / SS316L A - CA 15 / SS410 O - Other than above</p>	<p>Seat / Seat insert</p> <p>T - PTFE G - GFT C - CFT F - CGFT B - BFT N - Nylon D - Delrin P - PEEK E - PCTFE L - DEVLON V - Pri. Metal & sec. softseat of Viton O - Other than above</p> <p>Fire safety</p> <p>F - Fire safe N - Non fire safe</p> <p>Operation</p> <p>B - Bare stem G - Gear operated L - Handlever A - Actuated</p> <p>Pattern</p> <p>SP - Short pattern LP - Long Pattern</p> <p>Special</p> <p>XX - Special Requirements to be specified</p>
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EXAMPLE

N	3	RF	1	F	C	6	N	S	L	SP	XX
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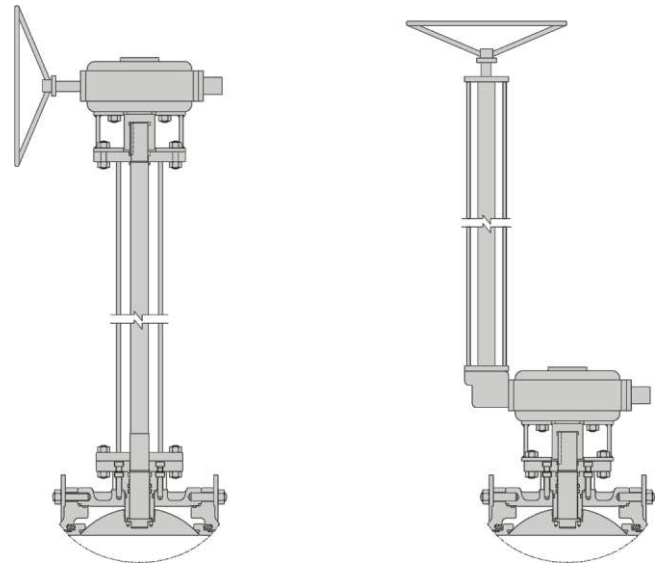
This code stands for Three piece Trunnion mounted ball valve, with flanged raised face serrated end connection, 150#, full bore, WCB body, CF8M/SS 316 ball, Nylon seat, non-fire safe, hand lever operation, short pattern and with special req. to be specified.

Sealant Injection System



For stem sealing, additional gland security is available using stem sealant injection system. Similarly in the event of seat face damage due to contamination, an emergency seal can be formed using a seat sealant injection facility.

Stem Extension / Extended Gear Operator



Valve can be offered with stem extension or extended operator when used for underground installations. These are supplied, if specified, with necessary piping to facilitate drain, vent and sealant injection.

Notice :

1. The descriptions of all the products contained in this catalogue are general in nature and the products are subject to Virgo's Standard Warranty and other terms and conditions as contained in the applicable contract for such products.
2. We reserve the right to change or modify Product Design or construct without prior notice and without any obligation to make such modification / change on products previously or subsequently sold.
3. 'Virgo' is a trademark of Virgo Engineers Inc.
4. All Virgo Valves are designed and manufactured using good workmanship and materials and they meet all applicable industry standards. Virgo is very anxious to avoid injuries and property damage that might result from wrong application of the product. Proper Valve selection for a given application is imperative. Examples of misapplication or misuse of a Valve include but are not limited to any service or application in which the pressure - temperature rating is exceeded or in a chemical service that is incompatible with valve materials, use of undersized valve and actuator, use of extremely fast valve application and /or continuous valve cycling on standard valves, making modification to the product in any kind, failure to use caution in operating at high temperature, high pressure or highly hazardous services and failure to maintain valves as recommended.



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