HIGH PERFORMANCE FLOATING BALL VALVE

ROTEX

Engineering For The Future

CE 1354

SIL3 PED

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FLOATING BALL VALVE

CURVE-seal™

Patents Applied

THEORY OF CURVE-seal™

- Good engineering practice is to maintain the contact area of ball and seat at 45°.
- Contact angle greater the 45° results in better sealing but increased torque. Contact angle lower then 45°, reduces the torque but leads to inefficiency in sealing at low pressure.
- Rotex **CURVE-seal™** is designed to have a greater contact angle at low pressure and as the pressure increases the contact angel keeps on reducing.
- This unique **CURVE-seal™** is designed to have lower torque at lower pressure but almost the same torque at full ΔP.

CURVE-seal™ FEATURE

- **CURVE-seal™** is flexible.
- Does not allow cold flow and prevents sticking to the ball. This ensures low torque even after long stagnant periods.
- Valve body and adapter fully tightened, maintaining the torque even after extreme piping loads.
- The flexible nature of **CURVE-seal™** allows large temperature variation, maintaining the torque.

Patents Applied

WHY ROTEX BALL VALVE

Is Your Valve Jamming Due To -

- Valve not being operational for a few days
- Cyclic change in temperature of the media
- Pipeline loads and distortions due to piping layouts

Does your Valve fail to open?

Does your valve fail to close due to –

- Sudden change in media pressures
- Sticky media, high viscous media etc.

ROTEX CURVE-seal™ GUARANTEES PERFORMANCE

SEE HOW

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FLOATING BALL VALVE

FEATURES

Patents Applied

STEM
- Burnished stem lowers torque and provides extremely long life
- Design conforms to fugitive emission standards
- Stem drive dimensions adhere to ISO 5211 for ease in direct mounting
- Dual anti static system assures safety

GLAND SEAL
- Unique 'V' packing for low friction
- Servicing of gland is not required due to a self-adjusting system consisting of disc springs and unique 'V' shape of gland seals
- Extremely long life
- Fire Safety achieved through a combination of graphite and PTFE seal

DUAL BODY SEAL
- Combination of soft and graphite sealing ensures zero leak
- Dual body seal allows large temperature variations

VALVE MOUNTING
- Direct mount as per ISO 5211
- Eliminates coupler and hence ensures perfect alignment
- Eliminates bracket and hence ensures rigid mounting of actuator

STEM EXTENSION
- Gland packing provided on top of the stem extension.

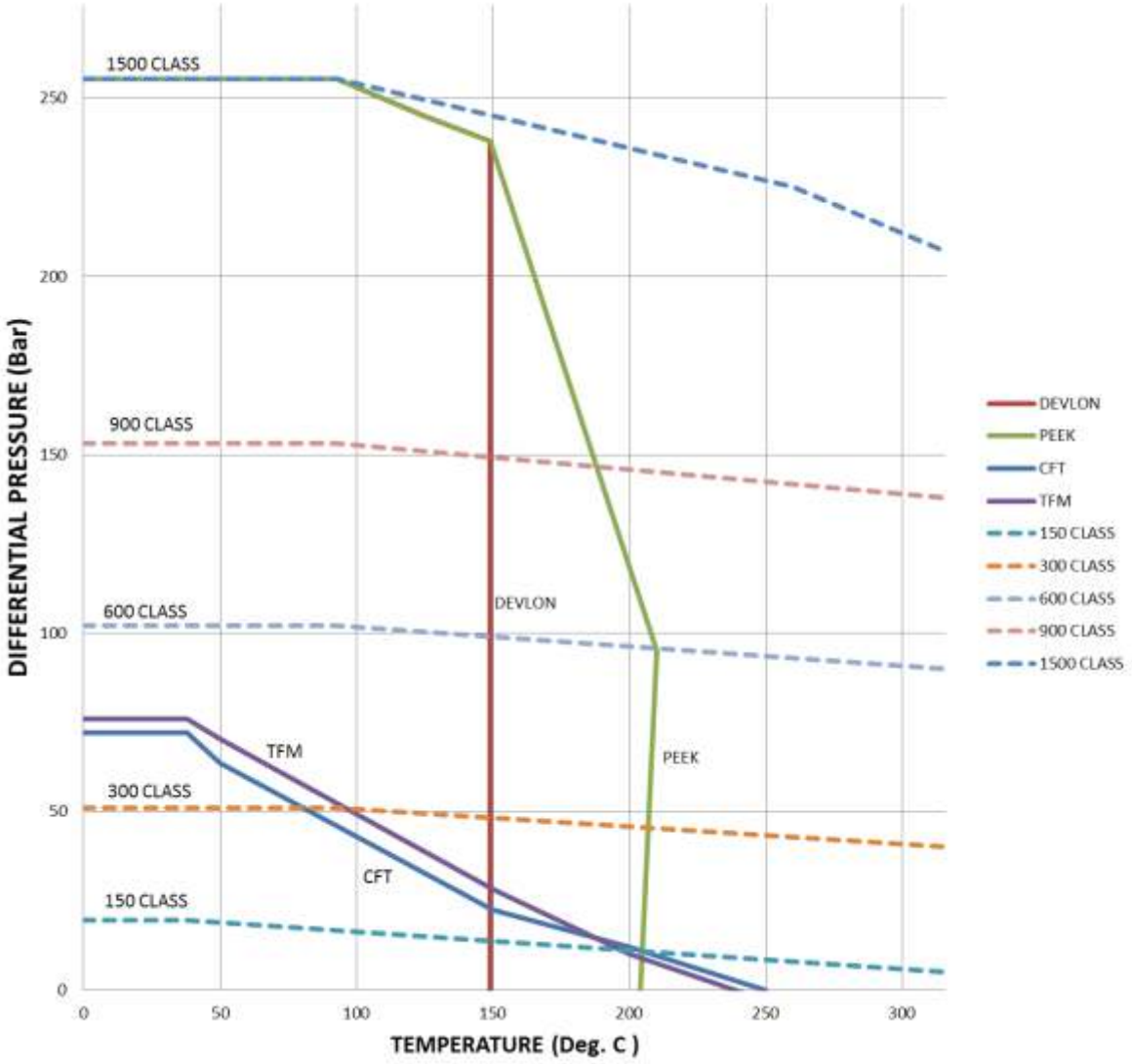
- Most manufacturers provide gland packing on the valve body. Due to this the gland packing system remains inside the pipe cladding. Hence, while doing any maintenance the cladding has to be disturbed or removed. This is completely avoided by using ROTEX Valves.

This design also provides better stem sealing as the packing is relocated away from the temperature of the process.

HEAVY DUTY CONSTRUCTION
- Valve designed to take heavy piping loads and distortion
- Dual body seal design

RANGE
- #150 #300 #600 #800
- PN 400
- Screwed, Socket Weld, Butt Weld, Flanged etc
- Wide range of material for body, stem and ball
- Standard seat material is TFM 1600. Other options available are – PTFE, GFT, CFT, PEEK, Metal Seated etc.

PRESSURE TEMPERATURE CHART FOR SOFT SEAT MATERIAL



ROTEX CURVE-seal™ from TFM 1600

TFM is modified and improved PTFE. TFM has very wide application in pressure and temperature which is clear from the graph above. TFM is pure grade and has no filler which makes this design more versatile in food industry also.

PTFE has limited pressure and temperature range. Needs glass or carbon/graphite reinforcement to increase the working range. Certain applications carbon/graphite may react to the media which limits their usage. Reinforced seat is less flexible and has poor ability to seal at very low pressures. Reinforced PTFE needs higher torque and hence larger actuator which increase the cost further.

Using TFM 1600 also means we can supply entire range of PTFE and its filler grade.

ROTEX valves can serve one seal material for wide range of media and temperature allowing customer to use the valves without worrying about media temperature and pressures (which fits in TFM range) allows huge flexibitity.

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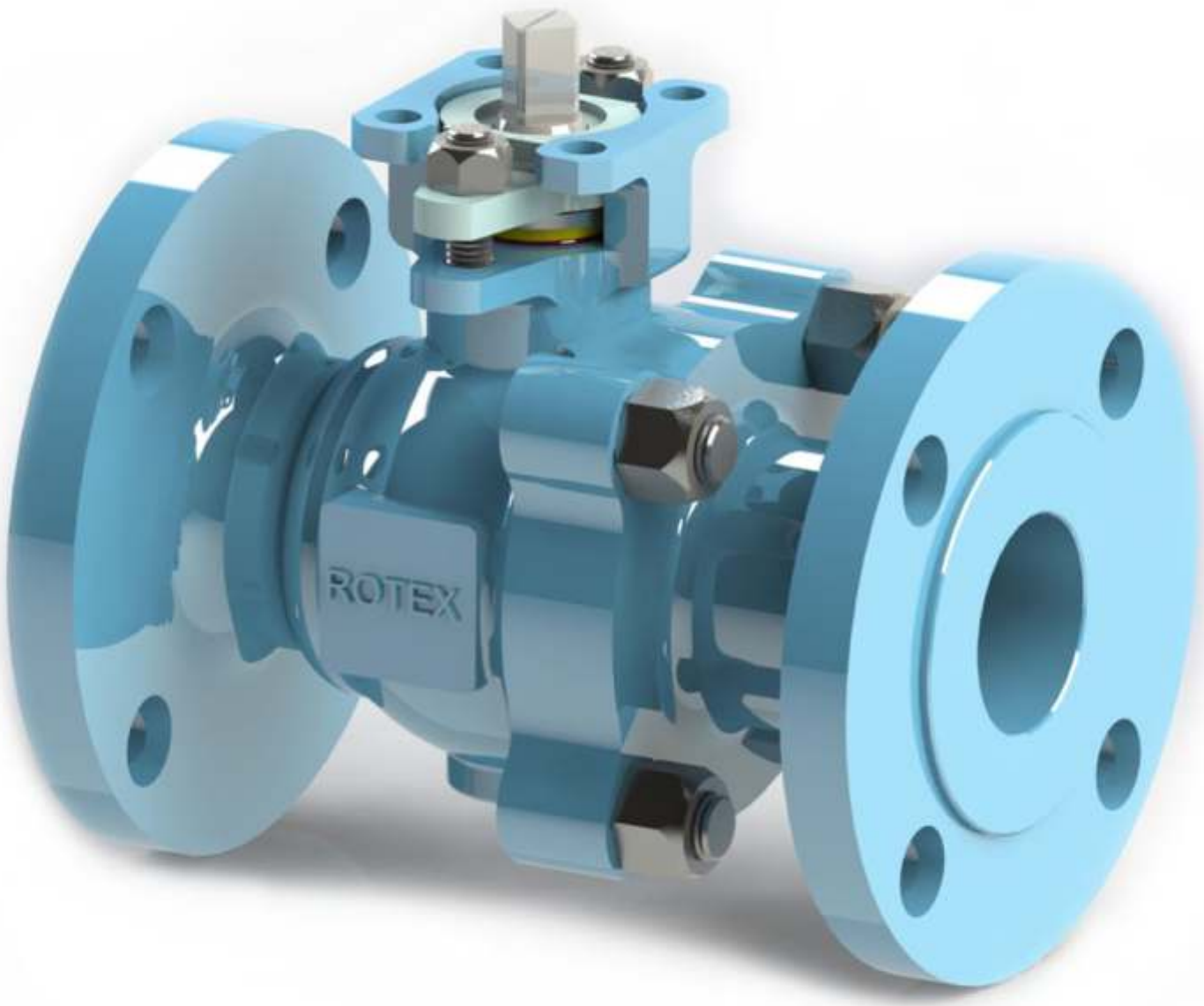
FLOATING BALL VALVE

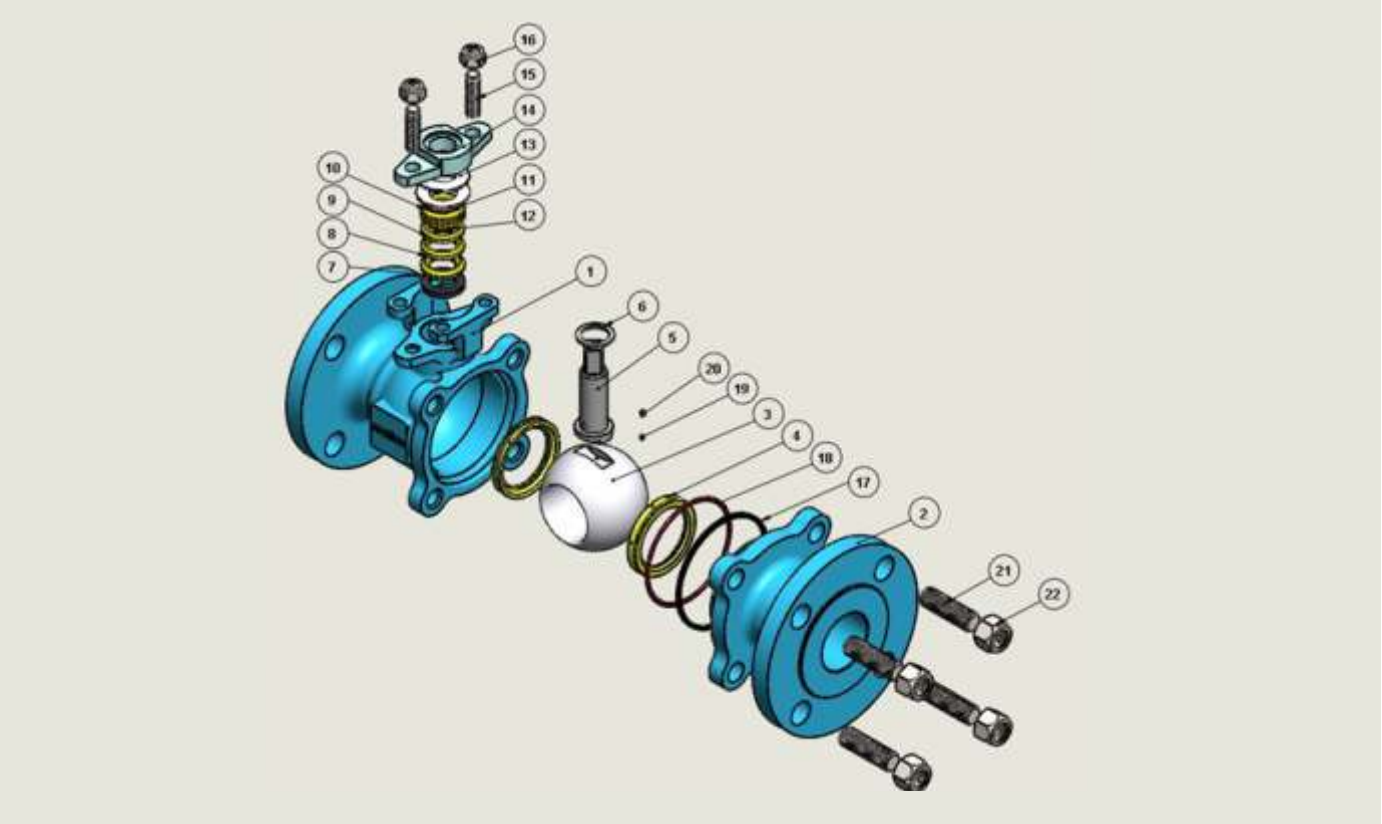
FLOATING BALL VALVE	SERIES 62F, 62R #150, #300



FLOATING BALL VALVE

SERIES 62F, 62R
#150, #300

MATERIAL DESCRIPTION

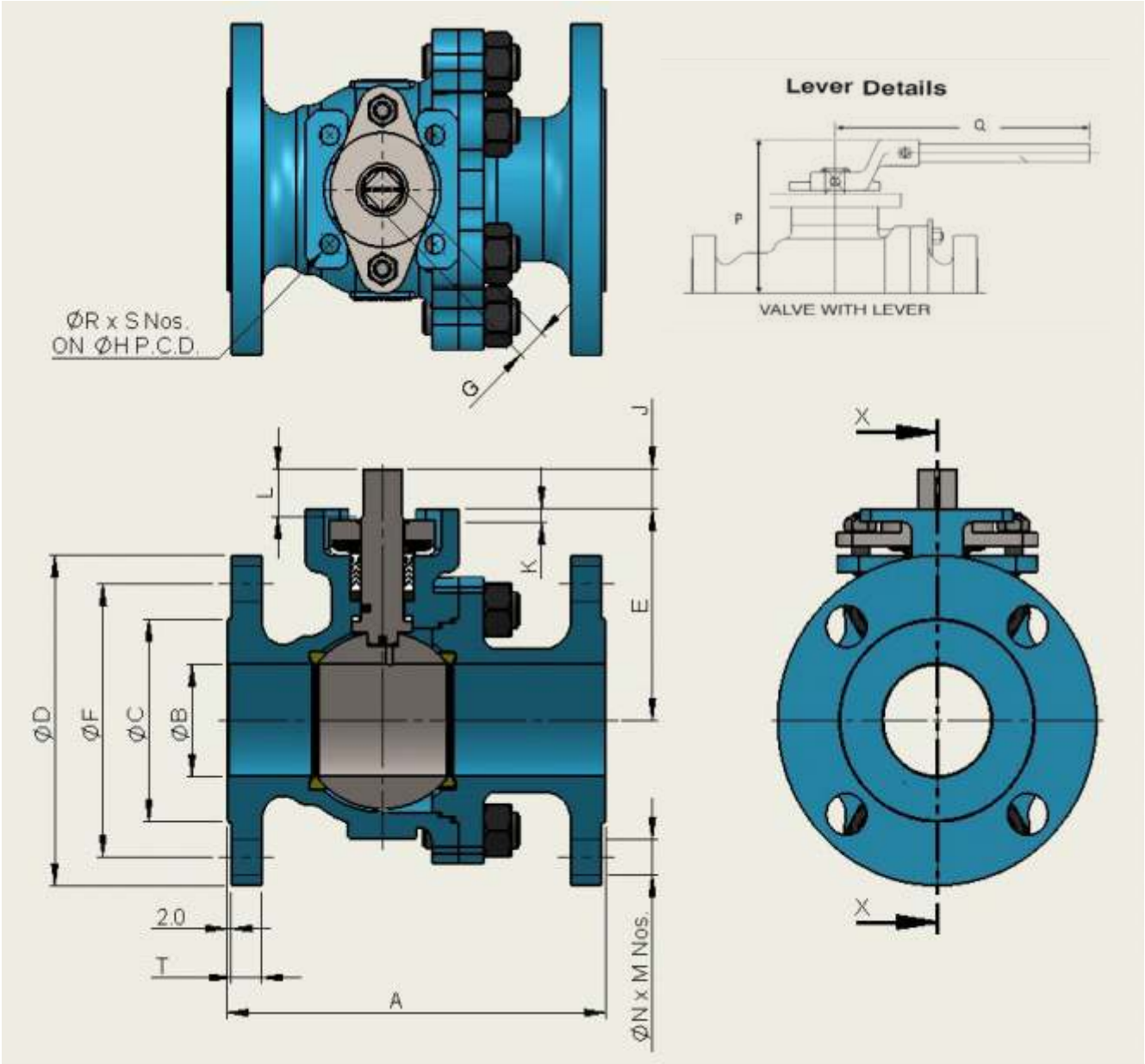


SR.NO.	PART DESCRIPTION	MATERIAL DESCRIPTION
1	BODY	ASTM A 216 GR.WCB / ASTM A 352 GR. LCB / ASTM A351 GR.CF8/ASTM A351 GR.CF8M
2	END PIECE	ASTM A 216 GR.WCB / ASTM A 352 GR. LCB / ASTM A351 GR.CF8/ASTM A351 GR.CF8M
3	BALL	ASTM A 216 GR.WCB / ASTM A 352 GR. LCB / ASTM A351 GR.CF8/ASTM A351 GR.CF8M
4	SEAT	TFM 1600 / PTFE / DELRIN / DEVLON / PEEK / CFT / GFT / PCTFE
5	STEM	17-4PH / SS304 / SS316 / SS316L / SS410
6	STEM WASHER	CFT / GFT
7	STEM SEAL	GRAPHITE
8	RETAINER 1 FOR STEM	GFT
9	V - RING FOR STEM	TFM 1600
10	RETAINER 2 FOR STEM	GFT
11	STEM OUTER O - RING	VITON
12	STEM INNER O - RING	VITON
13	DISK SPRING	55CrV4
14	GLAND FLANGE	ASTM A 216 GR.WCB/ASTM A351 GR.CF8/ASTM A351 GR.CF8M
15	STUD FOR GLAND	ASTM A 193 GR.B7/ASTM A193 GR.B7M/ASTM A193 GR. B8/ASTM A193 GR.B8M
16	NUT FOR GLAND	ASTM A 194 GR.2H/ASTM A194 GR.2HM/ASTM A194 GR. 8/ASTM A 194 GR. 8M
17	BODY GASKET	GRAPHITE
18	BODY O-RING	VITON
19	ANTISTATIC DEVICE	SS316
20	ANTISTATIC SPRING	SS316
21	STUD FOR BODY	ASTM A 193 GR.B7/ASTM A193 GR.B7M/ASTM A193 GR. B8/ASTM A193 GR.B8M
22	NUT FOR BODY	ASTM A 194 GR.2H/ASTM A194 GR.2HM/ASTM A194 GR. 8/ASTM A 194 GR. 8M

FLOATING BALL VALVE

SERIES 62F, 62R #150, #300

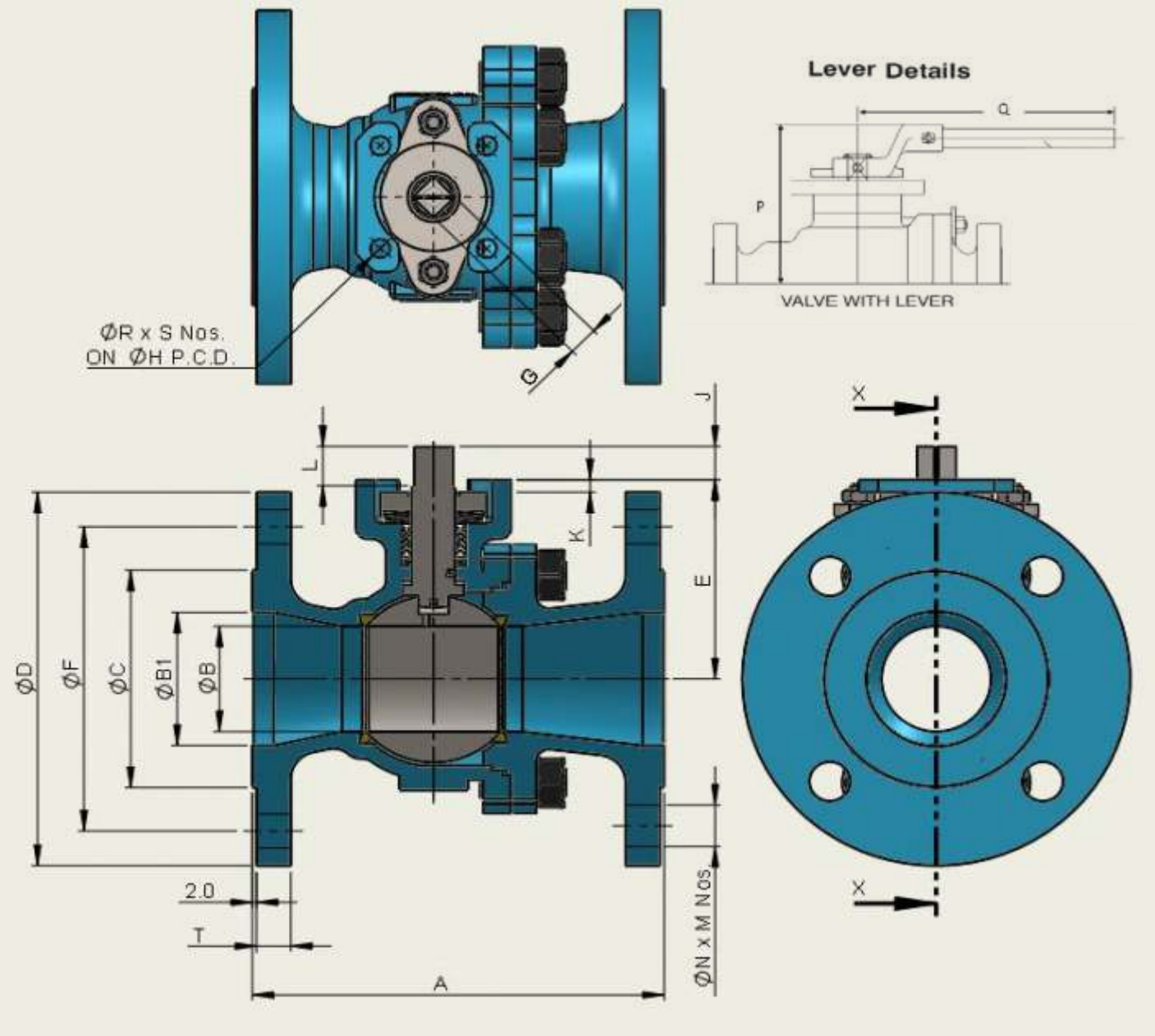
SERIES "62F" - CLASS 150 : DIMENSION DETAILS



SIZE	150 # (FULL BORE) - SERIES - 62F																				
	A	T	ØB	ØC	ØD	G	ØF	ØN	M	J	K	L	E	ØH	ISO 5211	ØR	S	P	Q	TORQUE BTO (Nm)	WEIGHT (Kg)
15	108	10	12.8	35	90	8	60.3	15.9	4	1.5	5	11	38.3	50	F05	M6	4	68	150	5	2.4
20	117	10.9	19.1	43	100	9	69.9	15.9	4	8.5	6.5	10.5	52.5	50	F05	M6	4	81	150	6	3.4
25	127	11.6	25.4	51	110	9	79.4	15.9	4	10	6.5	12	57.8	50	F05	M6	4	85	150	7	4.4
32	140	13.2	32	63.5	115	9	88.9	15.9	4	11	6	12	64.6	50	F05	M6	4	95	150	14	5.2
40	165	14.7	38.1	73	125	11	98.4	15.9	4	11	6	13	77.7	50	F05	Ø8	4	106	150	19	6.2
50	178	16.3	50.8	92	150	14	120.7	19.1	4	16	6	19	96	70	F07	Ø9	4	137	200	25	10.8
65	190	17.9	64.1	105	180	14	139.7	19.1	4	16	6	19	105.8	70	F07	Ø9	4	146	200	40	16
80	203	19.5	76.2	127	190	17	152.4	19.1	4	14	12	17	133	102	F10	Ø11	4	168	250	55	20.3
100	229	24.3	102	157	230	17	190.5	19.1	8	16	12	18.5	153	102	F10	Ø11	4	189	250	120	39
150	267*	25.9	150.8	216	280	22	241.3	22.4	8	21	13	25	207	125	F12	Ø13	4	----	----	310	74
200	292*	29	203	269.9	345	27	298.5	22.4	8	47.7	13	40	255	140	F14	Ø18	4	----	----	500	118

* DIMENSIONS FOR SHORT PATTERN DESIGN

SERIES "62R" - CLASS 150 : DIMENSION DETAILS



SIZE	150 # (REDUCED BORE) - SERIES - 62R																				
	A	T	ØB	ØB1	ØC	ØD	G	ØF	ØN	M	J	K	L	E	ØH	ISO 5211	ØR	S	P	Q	TORQUE BTO (Nm)	WEIGHT (Kg)
15	108	10	10	12.8	35	90	8	60.3	15.9	4	1.5	5	9	38.3	50	F05	M6	4	55	150	4	2
20	117	10.9	12.8	19.1	43	100	8	69.9	15.9	4	1.5	5	11	38.3	50	F05	M6*	4	68	150	5	3
25	127	11.6	19.1	25.4	51	110	9	79.4	15.9	4	8.5	6.5	10.5	52.5	50	F05	M6*	4	81	150	6	4.5
32	140	13.2	25.4	32	63.5	115	9	88.9	15.9	4	10	6.5	12	57.8	50	F05	M6*	4	85	150	7	4.5
40	165	14.7	25.4	38.1	73	125	9	98.4	15.9	4	10	6	12	57.8	50	F05	M6*	4	95	150	14	5
50	178	16.3	38.1	50.8	92	150	11	120.7	19.1	4	11	6	13	77.7	50	F05	Ø8	4	106	150	19	8
65	190	17.9	50.8	64.1	105	180	14	139.7	19.1	4	16	6	19	96	70	F07	Ø9	4	137	200	25	12.5
80	203	19.5	64.1	76.2	127	190	14	152.4	19.1	4	16	6	19	105.8	70	F07	Ø9	4	146	200	40	16.2
100	229	24.3	76.2	102	157	230	17	190.5	19.1	8	14	12	17	133	102	F10	Ø11	4	168	250	55	25
150	267*	25.9	102	150.8	216	280	17	241.3	22.4	8	16	12	18.5	153	102	F10	Ø11	4	189	250	120	45
200	292*	29	150.8	203	269.9	345	22	298.5	22.4	8	21	13	25	207	125	F12	Ø13	4	----	------	310	82

* DIMENSIONS FOR SHORT PATTERN DESIGN

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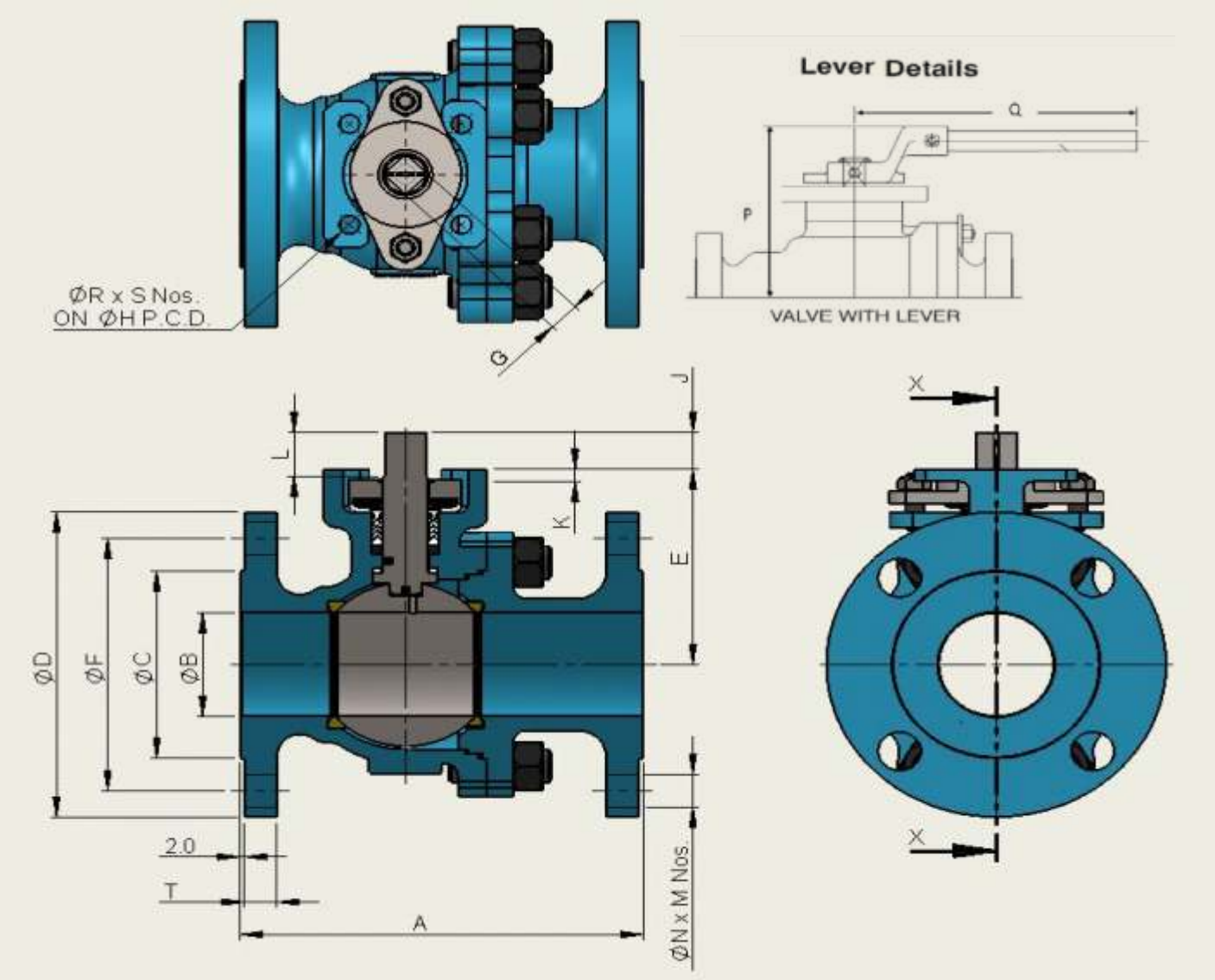
FLOATING BALL VALVE

FLOATING BALL VALVE

SERIES 62F, 62R
#150, #300

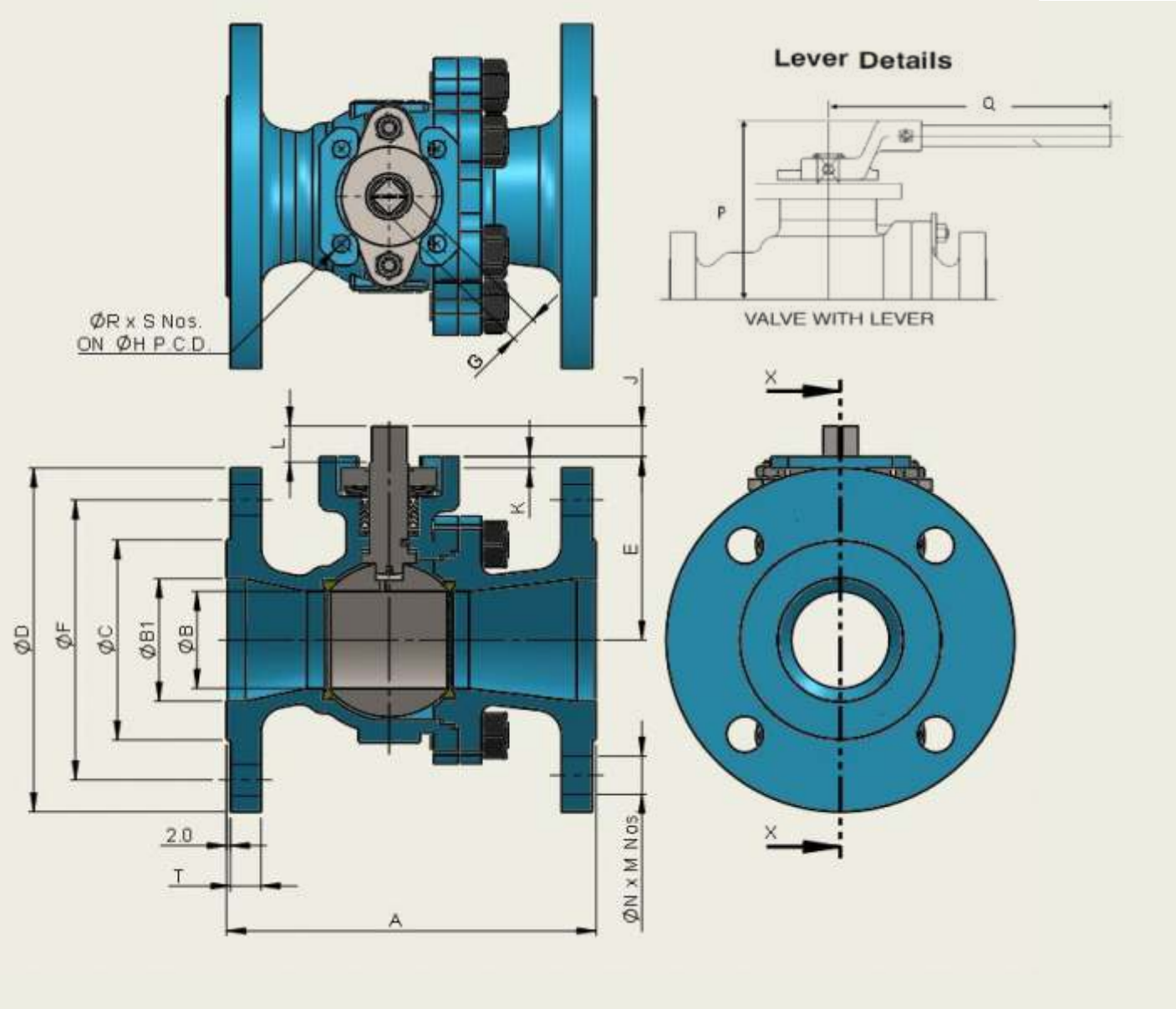
SERIES "62F" - CLASS 300 : DIMENSION DETAILS



SIZE	300 # (FULL BORE) - SERIES - 62F																					
	A	T	ØB	ØB1	ØC	ØD	G	ØF	ØN	M	J	K	L	E	ØH	ISO 5211	ØR	S	P	Q	TORQUE BTO (Nm)	WEIGHT (Kg)
15	140	14.7	12.8	12.8	34.9	95	8	66.7	16	4	1.5	5	11	38.3	50	F05	M6*	4	68	150	6	2.9
20	152	16.3	19.1	19.1	42.9	115	9	82.6	19.1	4	8.5	6.5	10.5	52.5	50	F05	M6*	4	81	150	8	4.5
25	165	17.9	25.4	25.4	50.8	125	9	88.9	19.1	4	10	6.5	12	57.8	50	F05	M6*	4	85	150	9	5.7
32	178	19.5	32	32	63.5	135	9	98.4	19.1	4	10	6.5	12	64.6	50	F05	M6*	4	95	150	19	7.8
40	190	21.1	38.1	38.1	73	155	11	114.3	22.4	4	11	6	13	77.7	50	F05	Ø8	4	106	150	23	9.5
50	216	22.7	50.8	50.8	92	165	14	127	19.1	8	16	6	19	96	70	F07	Ø9	4	137	200	31	14
65	241	25.9	64.1	64.1	104.8	190	14	149.2	22.4	8	16	6	19	105.8	70	F07	Ø9	4	146	200	65	19.8
80	282	29	76.2	76.2	127	210	17	168.3	22.4	8	14	12	17	133	102	F10	Ø11	4	168	200	90	27.7
100	305	32.2	102	102	157.2	255	17	200	22.4	8	16	12	18.5	153	102	F10	Ø11	4	189	250	160	46
150	403*	37	150.8	150.8	215.9	320	27	269.9	22.4	12	21	13	39	227.6	125	F12	Ø13	4	----	----	450	105
200	419*	41.7	203	203	269.9	380	27	330.2	25.4	12	47.7	13	40	255	140	F12	Ø18	4	----	----	870	130

* DIMENSIONS FOR SHORT PATTERN DESIGN

SERIES "62R" - CLASS 300 : DIMENSION DETAILS



SIZE	300 # (REDUCED BORE) - SERIES - 62R																				
	A	T	ØB	ØB1	ØC	ØD	G	ØF	ØN	M	J	K	L	E	ØH	ISO 5211	ØR	S	P	Q	TORQUE BTO (Nm)	WEIGHT (Kg)
15	140	14.7	10	12.8	34.9	95	8	66.7	15.8	4	1.5	5	9	38.3	50	F05	M6*	4	55	150	5	4
20	152	16.3	12.8	19.1	42.9	115	8	82.6	19.1	4	1.5	5	11	38.3	50	F05	M6*	4	68	150	6	5.2
25	165	17.9	19.1	25.4	50.8	125	9	88.9	19.1	4	8.5	6.5	10.5	52.5	50	F05	M6*	4	81	150	8	6
32	178	19.5	25.4	32	63.5	135	9	98.4	19.1	4	10	6.5	12	57.8	50	F05	M6*	4	85	150	9	7
40	190	21.1	25.4	38.1	73	155	9	114.3	22.4	4	10	6.5	12	57.8	50	F05	M6*	4	95	150	19	11
50	216	22.7	38.1	50.8	92	165	11	127	19.1	8	11	6	13	77.7	50	F05	Ø8	4	106	150	23	12
65	241	25.9	50.8	64.1	104.8	190	14	149.2	22.4	8	16	6	19	96	70	F07	Ø9	4	137	200	31	24
80	282	29	64.1	76.2	127	210	14	168.3	22.4	8	16	6	19	105.8	70	F07	Ø9	4	146	200	65	31
100	305	32.2	76.2	102	157.2	255	17	200	22.4	8	14	12	17	133	102	F10	Ø11	4	168	250	90	46
150	403*	37	102	150.8	215.9	320	17	269.9	22.4	12	16	12	18.5	153	102	F10	Ø11	4	189	250	160	95
200	419*	41.7	150.8	203	269.9	380	22	330.2	25.4	12	21	13	25	207	125	F12	Ø13	4	----	----	450	143

* DIMENSIONS FOR SHORT PATTERN DESIGN

ROTEX
Engineering For The Future

FLOATING BALL VALVE

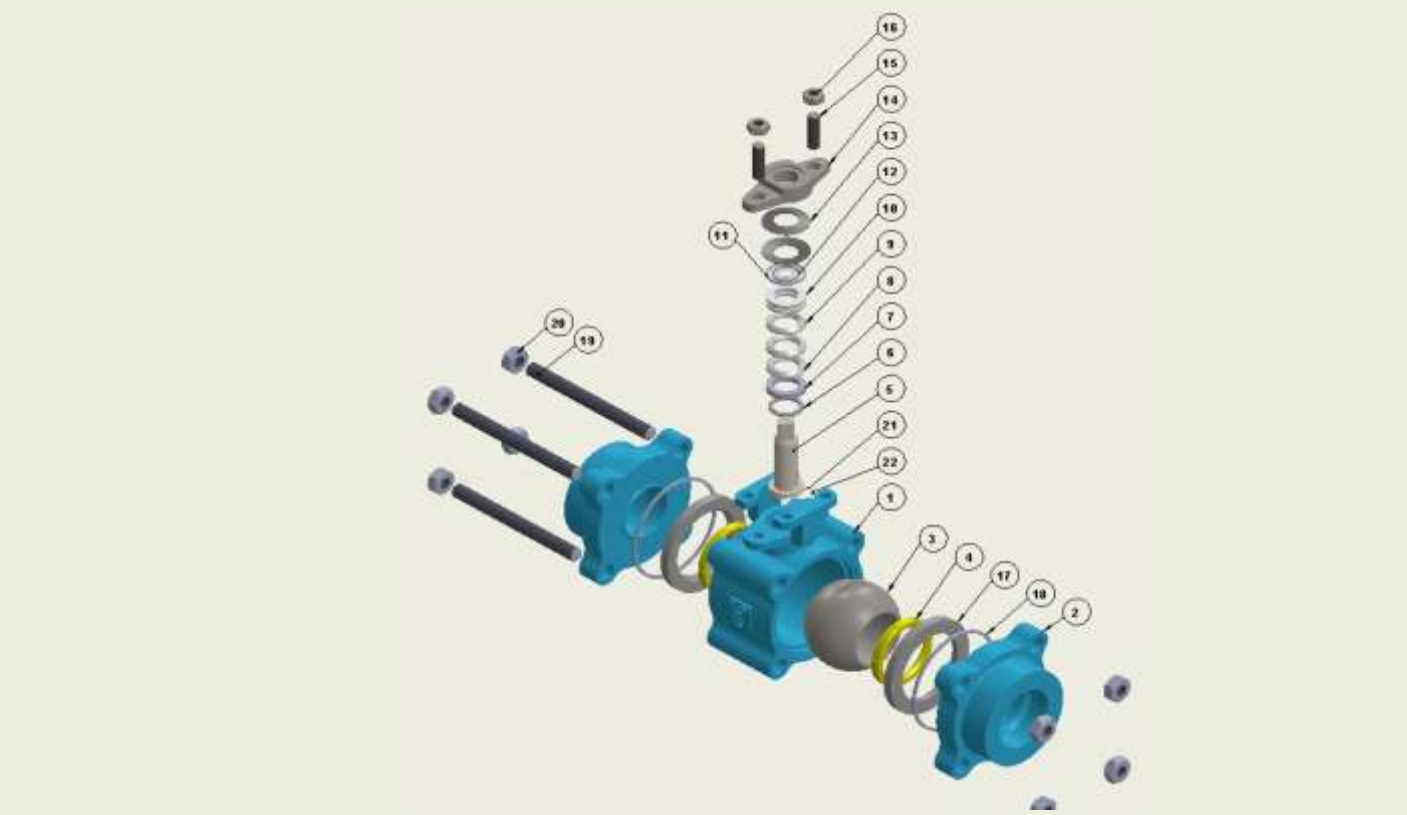
FLOATING BALL VALVE

SERIES 65F, 65R
PN 64-TFM 1600, #600-DEVLON

FLOATING BALL VALVE

SERIES 65F, 65R
PN 64-TFM 1600, #600-DEVLON

MATERIAL DESCRIPTION



SR NO.	PART DESCRIPTION	MATERIAL DESCRIPTION
1	BODY	ASTM A 216 GR. WCB / ASTM A 352 GR. LCB / ASTM A 351 GR. CF8/ ASTM A 351 GR. CF8M
2	END PIECE	ASTM A 216 GR. WCB / ASTM A 352 GR. LCB / ASTM A 351 GR. CF8/ ASTM A 351 GR. CF8M
3	BALL	ASTM A 216 GR. WCB / ASTM A 352 GR. LCB / ASTM A 351 GR. CF8/ ASTM A 351 GR. CF8M
4	SEAT	TFM 1600 / PTFE / DELRIN / DEVLON / PEEK / CFT / GFT / PCTFE
5	STEM	17-4PH / SS304 / SS316 / SS316L / SS410
6	STEM WASHER	CFT / GFT
7	STEM SEAL	GRAPHITE
8	RETAINER 1 FOR STEM	GFT
9	V - RING FOR STEM	TFM 1600
10	RETAINER 2 FOR STEM	GFT
11	STEM OUTER O - RING	VITON
12	STEM INNER O - RING	VITON
13	DISK SPRING	55CrV4
14	GLAND FLANGE	ASTM A 216 GR. WCB / ASTM A 352 GR. LCB / ASTM A 351 GR. CF8/ ASTM A 351 GR. CF8M
15	STUD FOR GLAND	ASTM A 193 GR. B7 / ASTM A 193 GR. B7M / ASTM A 193 GR. B8 / ASTM A 193 GR. B8M
16	NUT FOR GLAND	ASTM A 194 GR. 2H / ASTM A 194 GR. 2HM / ASTM A 194 GR. 8 / ASTM A 194 GR. 8M
17	RETAINER	PTFE
18	BODY GASKET	GRAPHITE
19	BODY STUD	ASTM A 193 GR. B7 / ASTM A 193 GR. B7M / ASTM A 193 GR. B8 / ASTM A 193 GR. B8M
20	BODY NUT	ASTM A 194 GR. 2H / ASTM A 194 GR. 2HM / ASTM A 194 GR. 8 / ASTM A 194 GR. 8M
21	ANTISTATIC DEVICE	SS316
22	ANTISTATIC SPRING	SS316

*Materials not specified above will be available on request.

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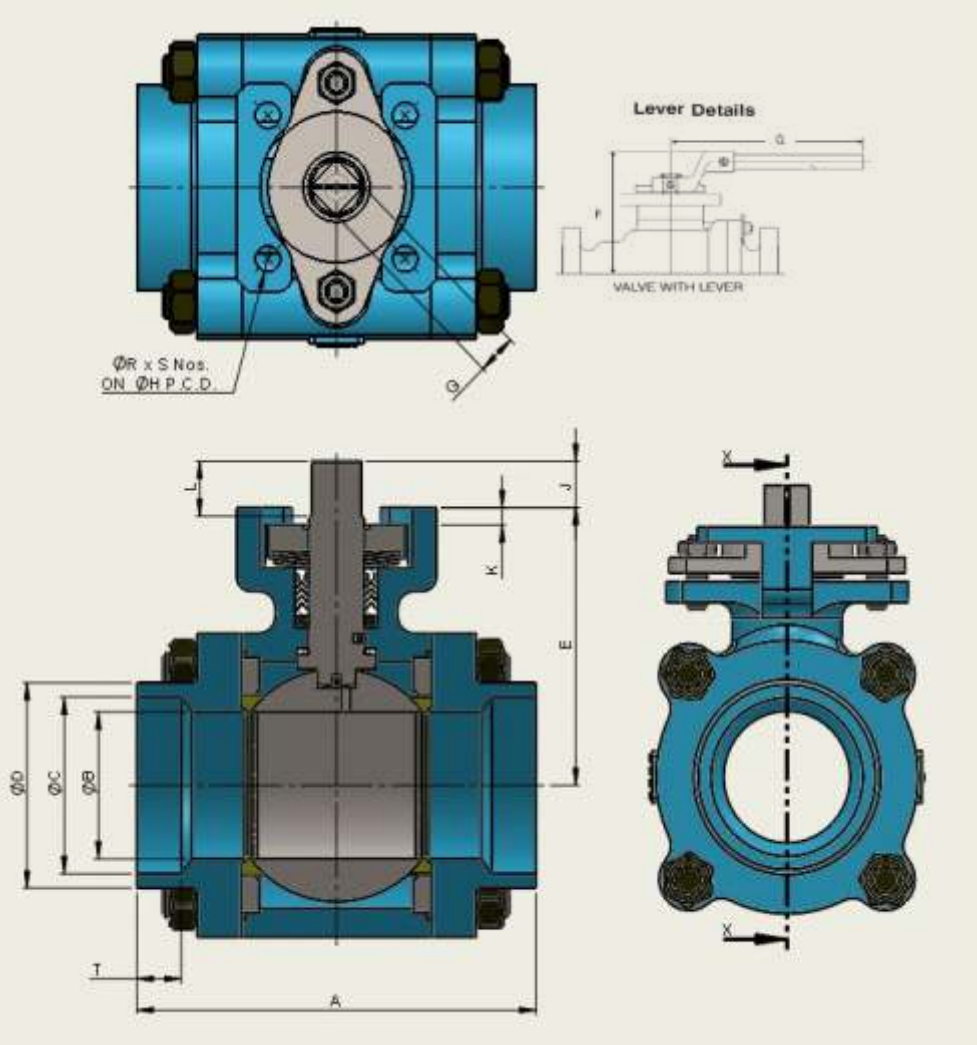
FLOATING BALL VALVE

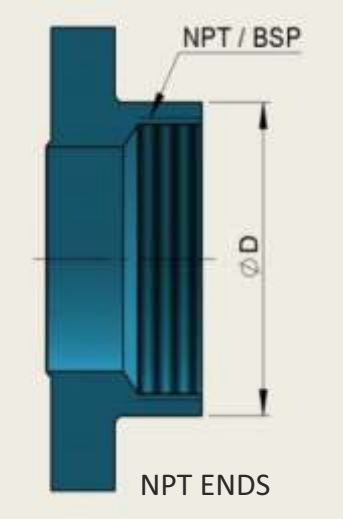
FLOATING BALL VALVE

SERIES 65F, 65R
PN 64-TFM 1600, #600-DEVLON

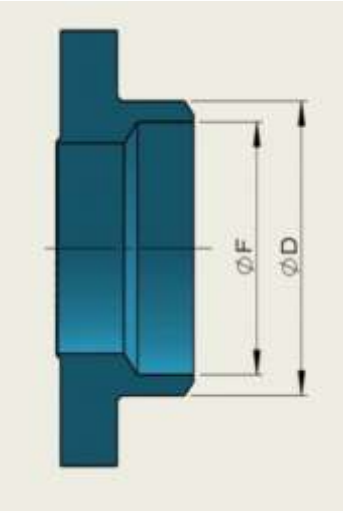
SERIES "65F" - PN 64, CLASS 600 : DIMENSION DETAILS



SOCKET WELD END



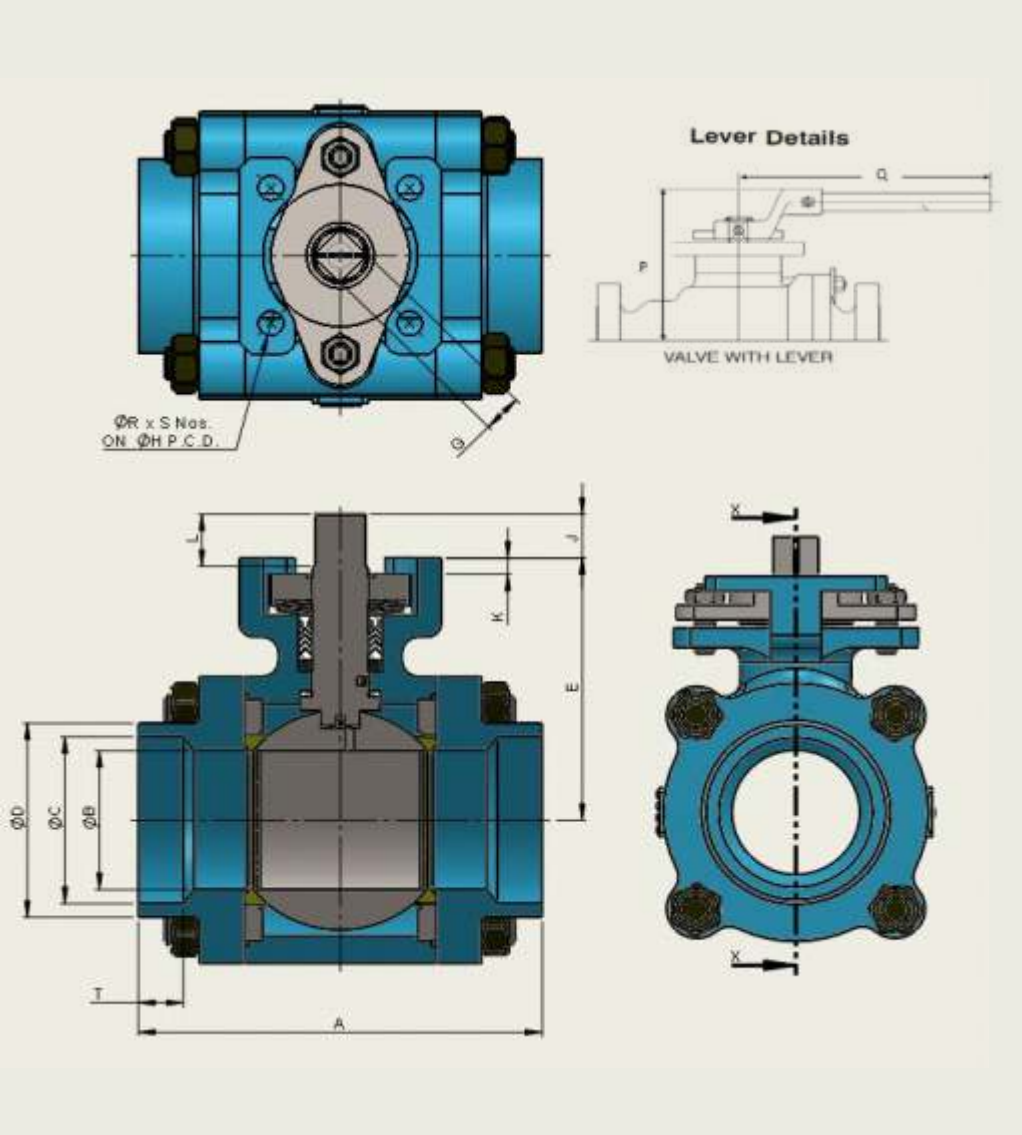
NPT ENDS



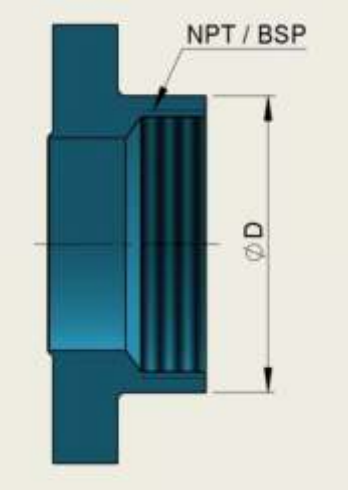
BUTTWELD ENDS

SIZE	PN 64, #600 (FULL BORE) - SERIES - 65F																		
	A	ØB	ØC	ØD	ØF	T	E	K	L	J	G	ØH	ISO 5211	ØR	S	P	Q	TORQUE BTO (NM)	WEIGHT (Kg)
15 (FB)	72	12.8	22	35	16	13	38.3	3.5	11	1.5	8	50	F05	M6*	4	68	150	6	0.8
20 (FB)	90	19.1	28	41	21	15	52.5	6.5	10.5	8.5	9	50	F05	M6*	4	81	150	8	1.1
25 (FB)	103	25.4	34	50	26.7	18	57.8	6.5	12	10	9	50	F05	M6*	4	85	150	9	2
32 (FB)	114	32	43	61.5	35.1	17	65.1	6.5	12	10	9	50	F05	M6*	4	95	150	19	3.1
40 (FB)	132	38.1	49	71	41	16	77.7	6.5	13	11	11	50	F05	Ø8	4	106	150	23	4.5
50 (FB)	144	50.8	61	71	52.5	16	96	6	19	16	14	70	F07	Ø9	4	137	200	31	6.2

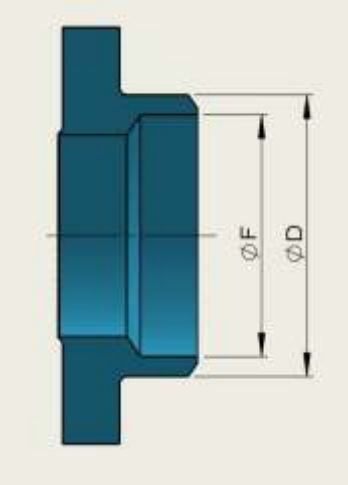
SERIES "65R" - PN 64, CLASS 600 : DIMENSION DETAILS



SOCKET WELD END



NPT ENDS



BUTTWELD ENDS

SIZE	PN 64, #600 (REDUCED BORE) - SERIES - 65R																	
	A	ØB	ØC	ØD	ØR	T	E	K	L	J	G	ØH	ISO 5211	ØR	S	P	Q	TORQUE BTO (NM)	WEIGHT
15 (RB)	67	10	22	30	16	13	38.3	3.5	9	1.5	8	50	F05	M6*	4	55	150	5	0.5
20 (RB)	72	12.8	28	35	21	15	38.3	3.5	11	1.5	8	50	F05	M6*	4	68	150	6	0.7
25 (RB)	90	19.1	34	41	26.7	18	52.5	6.5	10.5	8.5	9	50	F05	M6*	4	81	150	8	1.2
32 (RB)	103	25.4	43	50	35.1	17	57.8	6.5	12	10	9	50	F05	M6*	4	85	150	9	2
40 (RB)	114	31.8	49	61.5	41	16	65.1	6.5	12	10	9	50	F05	M6*	4	95	150	19	3
50 (RB)	132	38.1	61	71	52.5	16	77.7	6	13	11	11	50	F05	Ø8	4	106	150	23	4.3

ROTEX
Engineering For The Future

FLOATING BALL VALVE

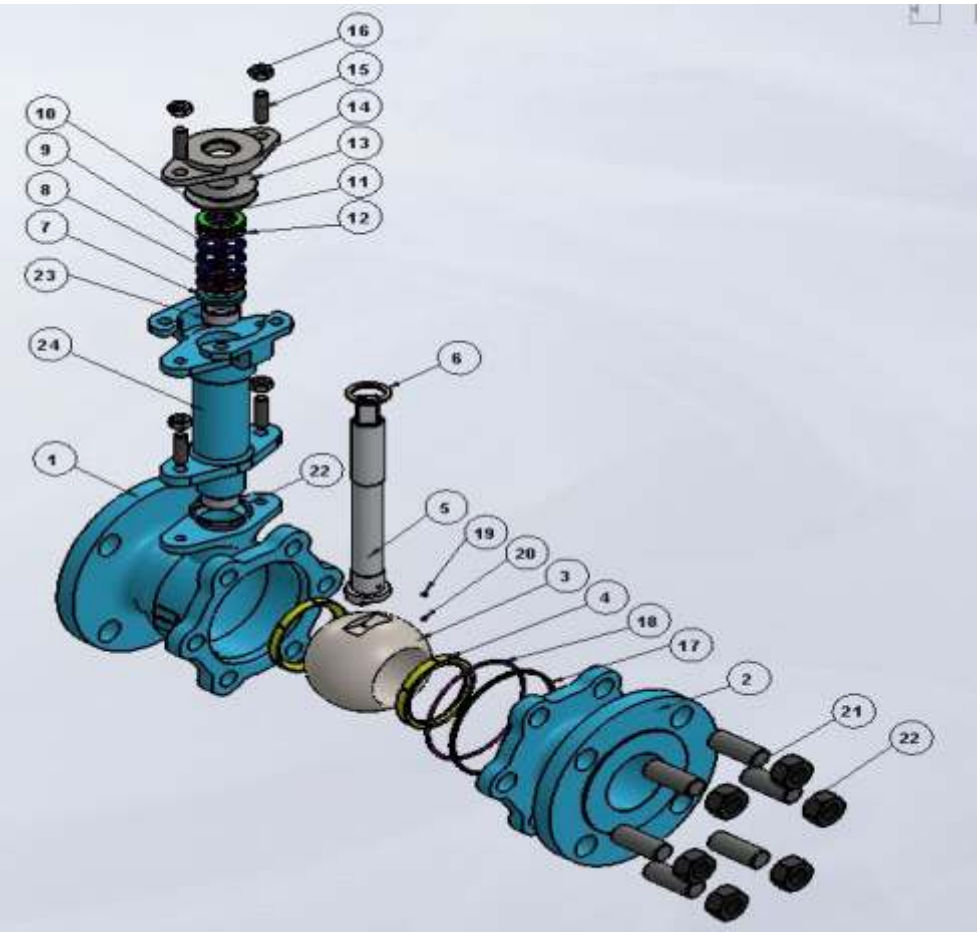
EXTENDED STEM BALL VALVE

SERIES 62F, 62R
#150, #300

EXTENDED STEM BALL VALVE

SERIES 62F, 62R
#150, #300

MATERIAL DESCRIPTION

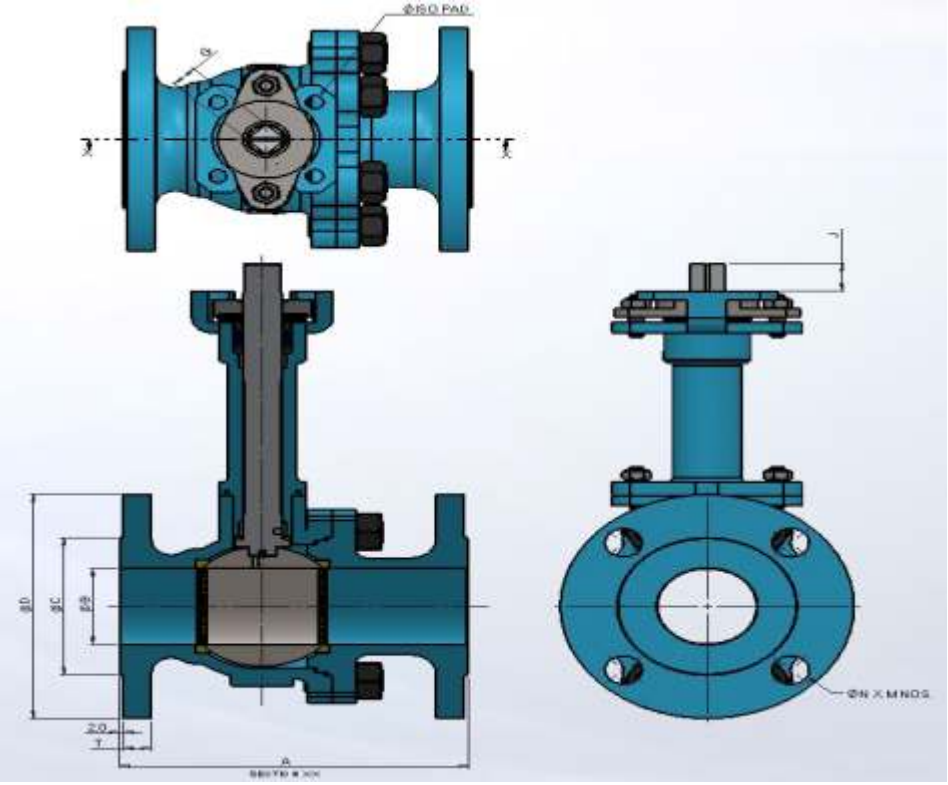


SR. NO.	PART DESCRIPTION	MATERIAL DESCRIPTION
1	BODY	ASTM A 216 GR.WCB / ASTM A 352 GR. LCB / ASTM A351 GR.CF8/ASTM A351 GR.CF8M
2	END PIECE	ASTM A 216 GR.WCB / ASTM A 352 GR. LCB / ASTM A351 GR.CF8/ASTM A351 GR.CF8M
3	BALL	ASTM A 216 GR.WCB / ASTM A 352 GR. LCB / ASTM A351 GR.CF8/ASTM A351 GR.CF8M
4	SEAT	TFM 1600 / PTFE / DELRIN / DEVLON / PEEK / CFT / GFT / PCTFE
5	STEM	17-4PH / SS304 / SS316 / SS316L / SS410
6	STEM WASHER	CFT / GFT
7	STEM SEAL	GRAPHITE
8	RETAINER 1 FOR STEM	GFT
9	V - RING FOR STEM	TFM 1600
10	RETAINER 2 FOR STEM	GFT
11	STEM OUTER O - RING	VITON
12	STEM INNER O - RING	VITON
13	DISK SPRING	55CrV4
14	GLAND FLANGE	ASTM A 216 GR.WCB/ASTM A351 GR.CF8/ASTM A351 GR.CF8M
15	STUD FOR GLAND	ASTM A 193 GR.B7/ASTM A193 GR.B7M/ASTM A193 GR. B8
16	NUT FOR GLAND	ASTM A 194 GR.2H/ASTM A194 GR.2HM/ASTM A194 GR. 8
17	BODY GASKET	GRAPHITE
18	BODY O-RING	VITON
19	ANTISTATIC DEVICE	SS316
20	ANTISTATIC SPRING	SS316
21	STUD FOR BODY	ASTM A 193 GR.B7/ASTM A193 GR.B7M/ASTM A193 GR. B8
22	NUT FOR BODY	ASTM A 194 GR.2H/ASTM A194 GR.2HM/ASTM A194 GR. 8
23	BUSH FOR EXTENSION	PTFE
24	EXTENSION	ASTM A 216 GR.WCB/ASTM A351 GR.CF8/ASTM A351 GR.CF8M

EXTENDED STEM BALL VALVE

SERIES 62F, 62R #150, #300

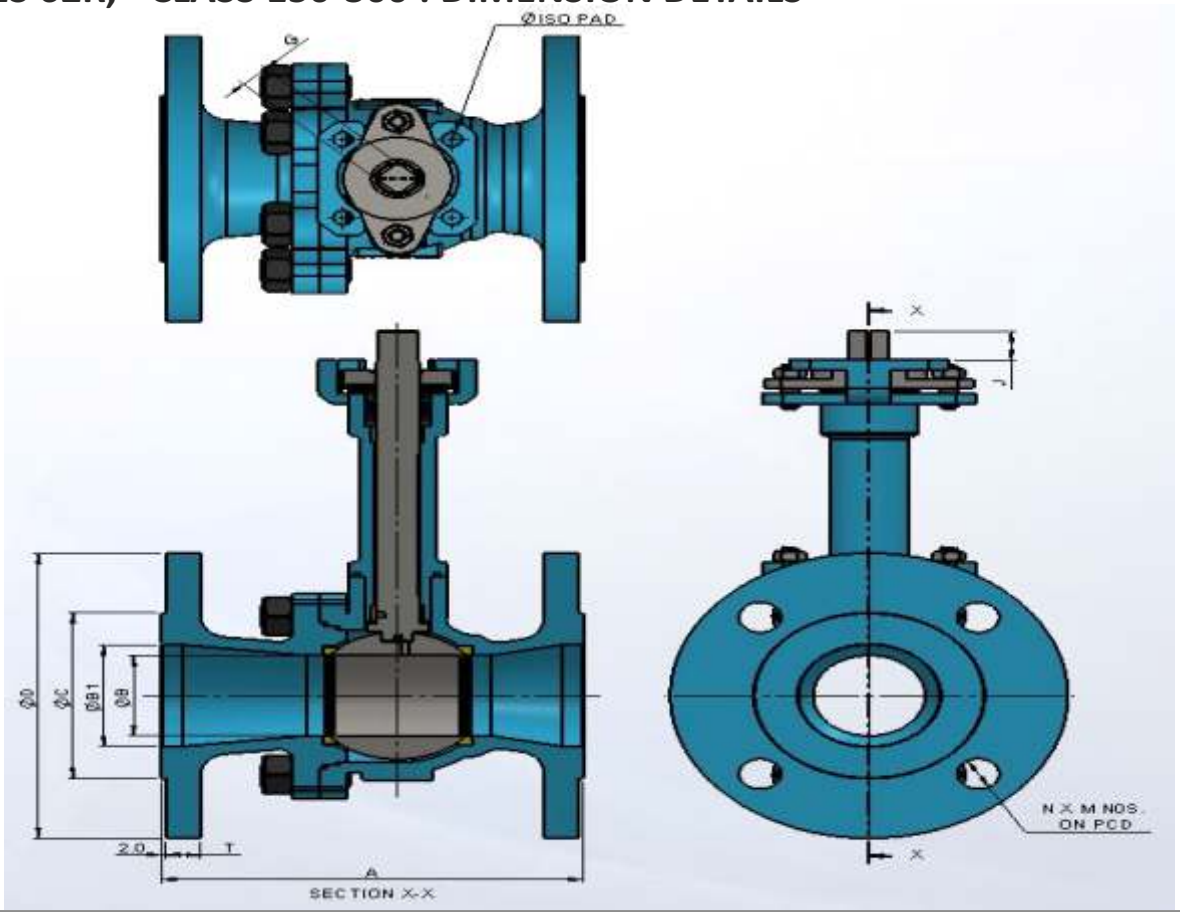
SERIES 62F, - CLASS 150-300 : DIMENSION DETAILS



SIZE	150 # (FULL BORE) - SERIES - 62F										
	A	T	ØB	ØC	ØD	G	E	N	M	J	ISO 5211
15	108	10	12.8	35	90	8	153.1	15.9	4	1.5	F05
20	117	10.9	19.1	43	100	9	166.5	15.9	4	8.5	F05
25	127	11.6	25.4	51	110	9	171.8	15.9	4	10	F05
32	140	13.2	32	63.5	115	9	180.6	15.9	4	11	F05
40	165	14.7	38.1	73	125	11	193.7	15.9	4	11	F05
50	178	16.3	50.8	92	150	14	213	19.1	4	16	F07
65	190	17.9	64.1	105	180	14	224.5	19.1	4	16	F07
80	203	19.5	76.2	127	190	17	246	19.1	4	14	F10
100	229	24.3	102	157	230	17	266	19.1	8	16	F10
150	267	25.9	150.8	216	280	22	331	22.4	8	21	F12

SIZE	300 # (FULL BORE) - SERIES - 62F										
	A	T	ØB	ØC	ØD	G	E	N	M	J	ISO 5211
15	140	14.7	12.8	35	90	8	153.1	15.9	4	1.5	F05
20	152	16.3	19.1	43	100	9	166.5	15.9	4	8.5	F05
25	165	17.9	25.4	51	110	9	171.8	15.9	4	10	F05
32	178	19.5	32	63.5	115	9	180.6	15.9	4	11	F05
40	190	21.1	38.1	73	125	11	193.7	15.9	4	11	F05
50	216	22.7	50.8	92	150	14	213	19.1	4	16	F07
65	241	25.9	64.1	105	180	14	224.5	19.1	4	16	F07
80	282	29	76.2	127	190	17	246	19.1	4	14	F10
100	305	32.2	102	157	230	17	266	19.1	8	16	F10
150	403	37	150.8	216	280	22	331	22.4	8	21	F12

SERIES 62R, - CLASS 150-300 : DIMENSION DETAILS



SIZE	150 # (REDUCED BORE) - SERIES - 62R											
	A	T	ØB	ØB1	ØC	ØD	G	E	N	M	J	ISO 5211
25	127	11.6	19.1	25.4	51	110	9	15.9	4	8.5	166.5	F05
40	165	14.7	25.4	38.1	73	125	9	15.9	4	10	180.6	F05
50	178	16.3	38.1	50.8	92	150	11	19.1	4	11	193.7	F05
65	190	17.9	50.8	64.1	105	180	14	19.1	4	16	213	F07
80	203	19.5	64.1	76.2	127	190	14	19.1	4	16	224.5	F07
100	229	24.3	76.2	102	157	230	17	19.1	8	14	246	F10
150	267	25.9	102	150.8	216	280	17	22.4	8	16	266	F10
200	292	29	150.8	203	269.9	345	22	22.4	8	21	331	F12

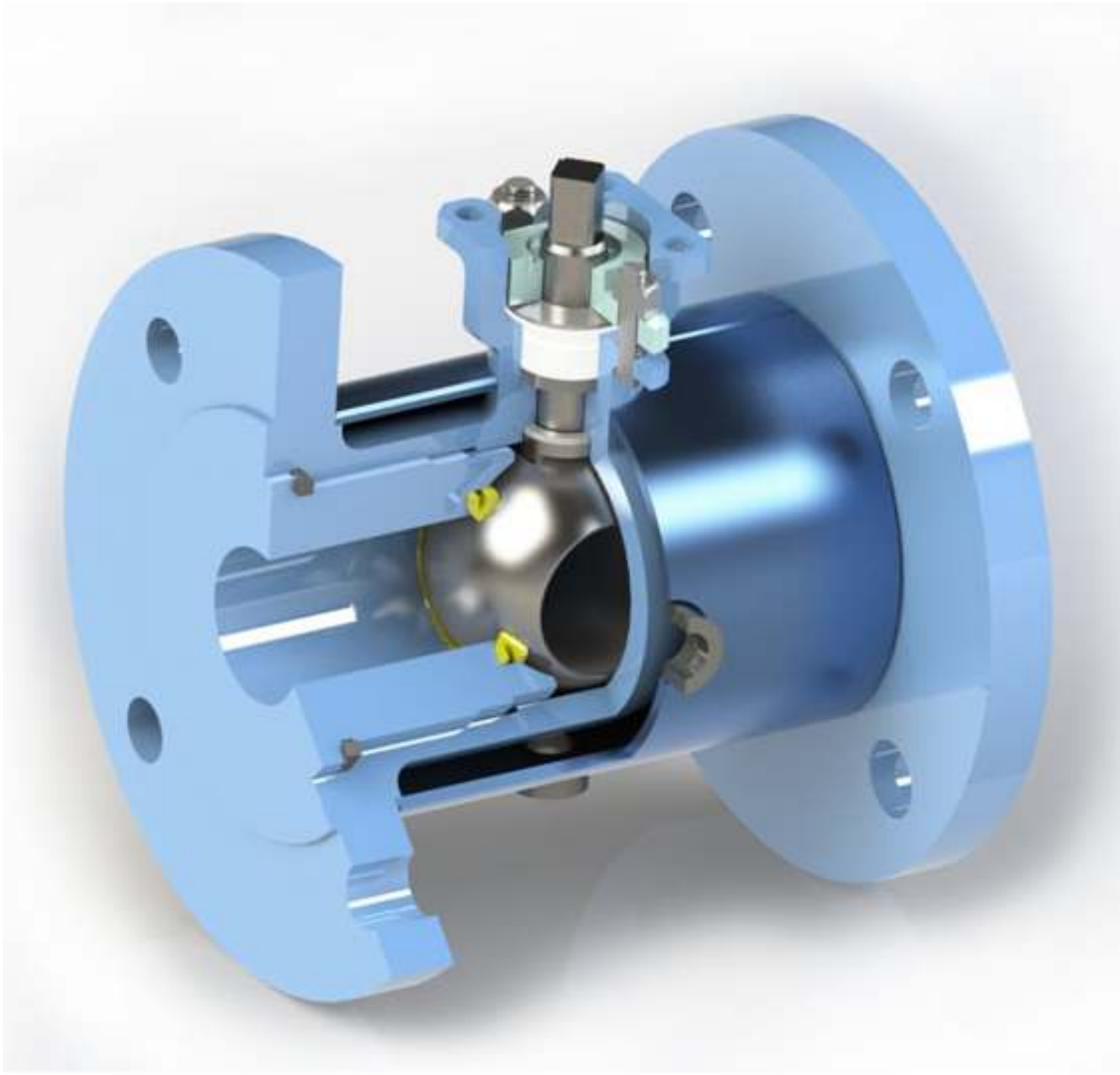
SIZE	300 # (REDUCED BORE) - SERIES - 62R											
	A	T	ØB	ØB1	ØC	ØD	G	E	N	M	J	ISO 5211
25	165	17.9	19.1	25.4	50.8	125	9	19.1	4	8.5	166.5	F05
40	190	21.1	25.4	38.1	73	155	9	22.4	4	10	180.6	F05
50	216	22.7	38.1	50.8	92	165	11	19.1	8	11	193.7	F05
65	241	25.9	50.8	64.1	104.8	190	14	22.4	8	16	213	F07
80	282	29	64.1	76.2	127	210	14	22.4	8	16	224.5	F07
100	305	32.2	76.2	102	157.2	255	17	22.4	8	14	246	F10
150	403	37	102	150.8	215.9	320	17	22.4	12	16	266	F10
200	419	41.7	150.8	203	269.9	380	22	25.4	12	21	331	F12

ROTEX
Engineering For The Future

FLOATING BALL VALVE

JACKETED FLOATING BALL VALVE

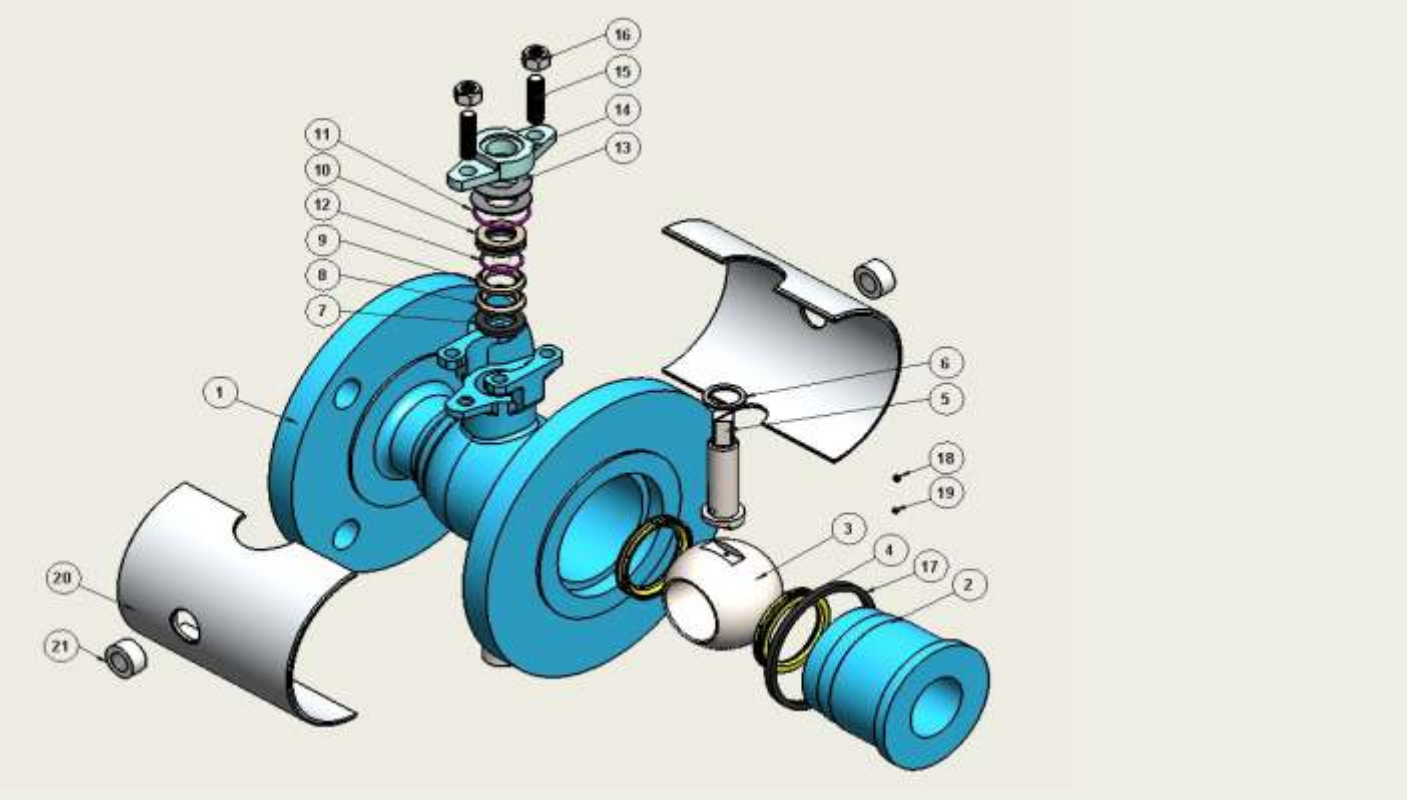
SERIES J30, J35
#150, #300



JACKETED FLOATING BALL VALVE

SERIES J30, J35
#150

MATERIAL DESCRIPTION

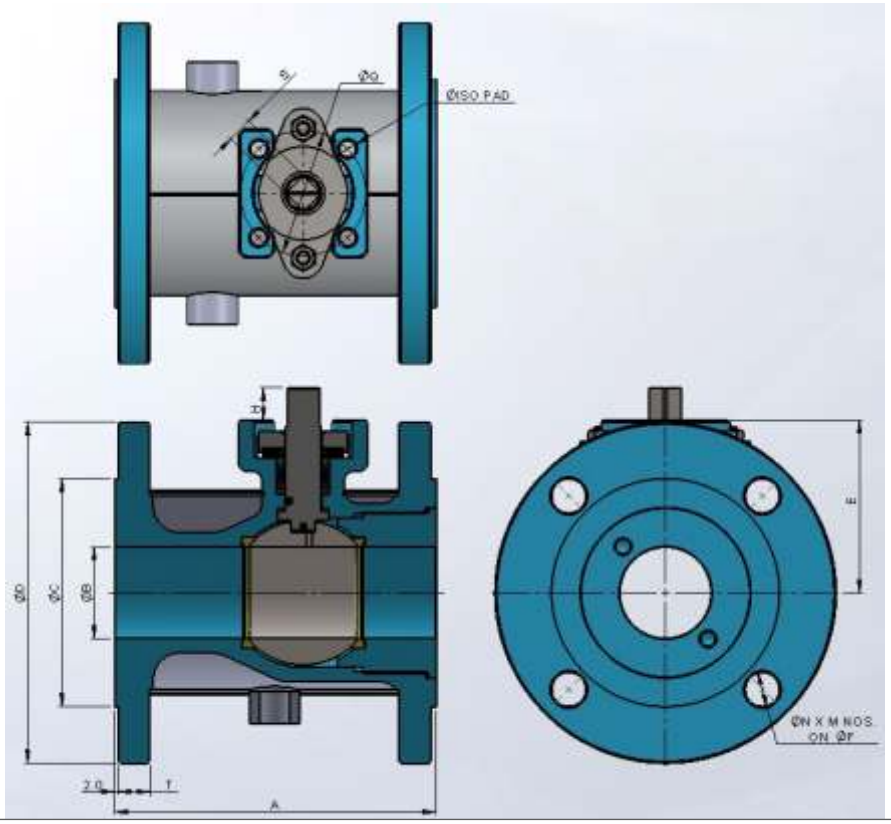


SR NO.	PART DESCRIPTION	MATERIAL DESCRIPTION
1	BODY	ASTM A 216 GR. WCB / ASTM A 352 GR. LCB / ASTM A 351 GR. CF8/ ASTM A 351 GR. CF8M
2	END PIECE	ASTM A 216 GR. WCB / ASTM A 352 GR. LCB / ASTM A 351 GR. CF8/ ASTM A 351 GR. CF8M
3	BALL	ASTM A 216 GR. WCB / ASTM A 352 GR. LCB / ASTM A 351 GR. CF8/ ASTM A 351 GR. CF8M
4	SEAT	TFM 1600 / PTFE / DELRIN / DEVLON / PEEK / CFT / GFT / PCTFE
5	STEM	17-4PH / SS304 / SS316 / SS316L / SS410
6	STEM WASHER	CFT / GFT
7	STEM SEAL	GRAPHITE
8	RETAINER 1 FOR STEM	GFT
9	V - RING FOR STEM	TFM 1600
10	RETAINER 2 FOR STEM	GFT
11	STEM OUTER O - RING	VITON
12	STEM INNER O - RING	VITON
13	DISK SPRING	55CrV4
14	GLAND FLANGE	ASTM A 216 GR. WCB / ASTM A 352 GR. LCB / ASTM A 351 GR. CF8/ ASTM A 351 GR. CF8M
15	STUD FOR GLAND	ASTM A 193 GR. B7 / ASTM A 193 GR. B7M / ASTM A 193 GR. B8 / ASTM A 193 GR. B8M
16	NUT FOR GLAND	ASTM A 194 GR. 2H / ASTM A 194 GR. 2HM / ASTM A 194 GR. 8 / ASTM A 194 GR. 8M
17	BODY GASKET	GRAPHITE
18	ANTISTATIC DEVICE	SS316
19	ANTISTATIC SPRING	SS316
20	JACKET	MS
21	PLUG	SS316

JACKETED FLOATING BALL VALVE

SERIES J30, J35
#150, #300

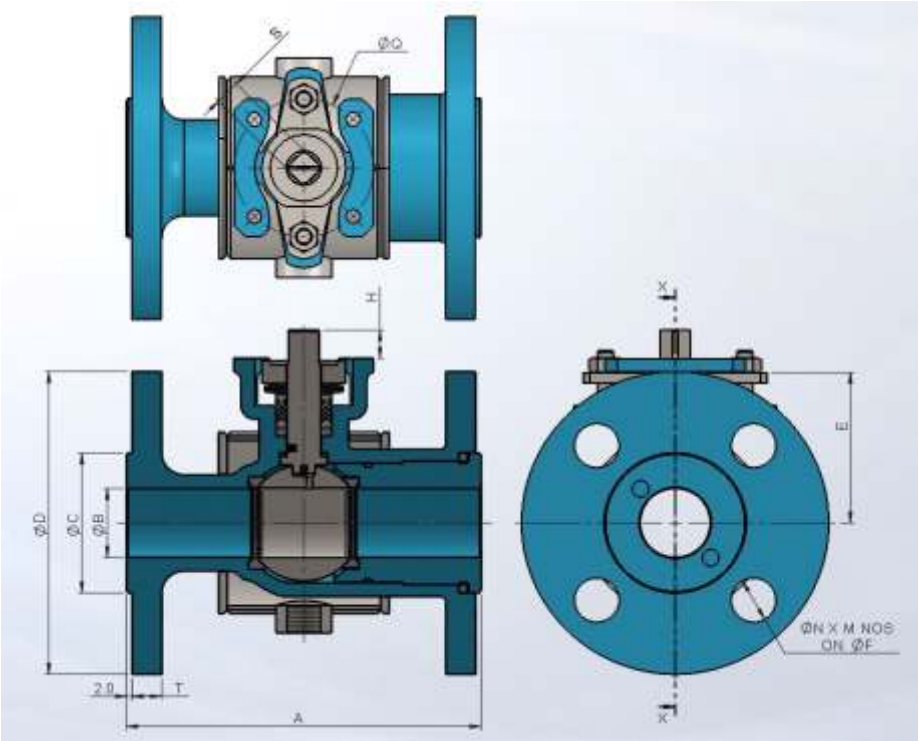
SERIES J30: DIMENSION DETAILS



SIZE	FLANGE SIZE	150 # (FULL BORE) - SERIES - J30													
		L	T	ØB	ØC	ØD	S	ØF	N	M	H	E	ØQ	ISO 5211	APPROX WT.
15	25	108	11.6	12.8	51	110	8	79.4	15.9	4	1.5	38.3	50	F05	2.4
20	32	117	13.2	19.1	63.5	115	9	88.9	15.9	4	8.5	52.5	50	F05	3.4
25	40	127	14.7	25.4	73	125	9	98.4	15.9	4	10	57.8	50	F05	4.4
40	65	165	17.9	38.1	105	180	11	139.7	19.1	4	14	77.7	50	F05	6.2
50	80	178	19.5	50.8	127	190	14	152.4	19.1	4	18.5	96	70	F07	10.8
80	100	203	24.3	76.2	157	230	17	190.5	19.1	8	24	133	102	F10	20.3
100	150	229	25.9	102	216	280	17	241.3	22.4	8	23.8	153	102	F10	39
150	250	267	30.6	150.8	323.8	405	22	362	25.4	12	43	207	125	F12	74
200	300	292	32.2	203	381	485	27	431.8	25.4	12	49.2	255	140	F14	118

SIZE	FLANGE SIZE	300 # (FULL BORE) - SERIES - J30													
		L	T	ØB	ØC	ØD	S	ØF	N	M	H	E	ØQ	ISO 5211	APPROX WT.
15	25	140	17.9	12.8	50.8	125	8	88.9	19.1	4	1.5	38.3	50	F05	2.9
20	32	152	19.5	19.1	63.5	135	9	98.4	19.1	4	8.5	52.5	50	F05	4.5
25	40	165	21.1	25.4	73	155	9	114.3	22.4	4	10	57.8	50	F05	5.7
40	65	190	25.9	38.1	104.8	190	11	149.2	22.4	8	14	77.7	50	F05	9.5
50	80	216	29	50.8	127	210	14	168.3	22.4	8	18.5	96	70	F07	14
80	100	282	32.2	76.2	157.2	255	17	200	22.4	8	24	133	102	F10	27.7
100	150	305	37	102	215.9	320	17	269.9	22.4	12	23.8	153	102	F10	46
150	250	403	46.1	150.8	323.8	445	27	387.4	28.5	16	43	227.6	125	F12	105
200	300	419	49.3	203	381	520	27	450.8	31.5	16	49.2	255	140	F12	130

SERIES J35: DIMENSION DETAILS



SIZE	FLANGE SIZE	150 # (FULL BORE) - SERIES - J35													
		L	T	ØB	ØC	ØD	S	ØF	N	M	H	E	ØQ	ISO 5211	APPROX WT.
15	15	127	11.6	25.4	51	110	9	79.4	15.9	4	10	57.8	50	F05	4.4
20	20	140	13.2	32	63.5	115	9	88.9	15.9	4	11	64.6	50	F05	5.2
25	25	165	14.7	38.1	73	125	11	98.4	15.9	4	11	77.7	50	F05	6.2
40	40	178	16.3	50.8	92	150	14	120.7	19.1	4	16	96	70	F07	10.8
50	50	190	17.9	64.1	105	180	14	139.7	19.1	4	16	105.8	70	F07	16
80	80	203	19.5	76.2	127	190	17	152.4	19.1	4	14	133	102	F10	20.3
100	100	229	24.3	102	157	230	17	190.5	19.1	8	16	153	102	F10	39
150	150	267	25.9	150.8	216	280	22	241.3	22.4	8	21	207	125	F12	74
200	200	292	29	203	269.9	345	27	298.5	22.4	8	47.7	255	140	F14	118

SIZE	FLANGE SIZE	300 # (FULL BORE) - SERIES - J35													
		L	T	ØB	ØC	ØD	S	ØF	N	M	H	E	ØQ	ISO 5211	APPROX WT.
15	15	165	17.9	25.4	50.8	125	9	88.9	19.1	4	10	57.8	50	F05	5.7
20	20	178	19.5	32	63.5	135	9	98.4	19.1	4	10	64.6	50	F05	7.8
25	25	190	21.1	38.1	73	155	11	114.3	22.4	4	11	77.7	50	F05	9.5
40	40	216	22.7	50.8	92	165	14	127	19.1	8	16	96	70	F07	14
50	50	241	25.9	64.1	104.8	190	14	149.2	22.4	8	16	105.8	70	F07	19.8
80	80	282	29	76.2	127	210	17	168.3	22.4	8	14	133	102	F10	27.7
100	100	305	32.2	102	157.2	255	17	200	22.4	8	16	153	102	F10	46
150	150	403	37	150.8	215.9	320	27	269.9	22.4	12	21	227.6	125	F12	105
200	200	419	41.7	203	269.9	380	27	330.2	25.4	12	47.7	255	140	F12	130

ROTEX
Engineering For The Future

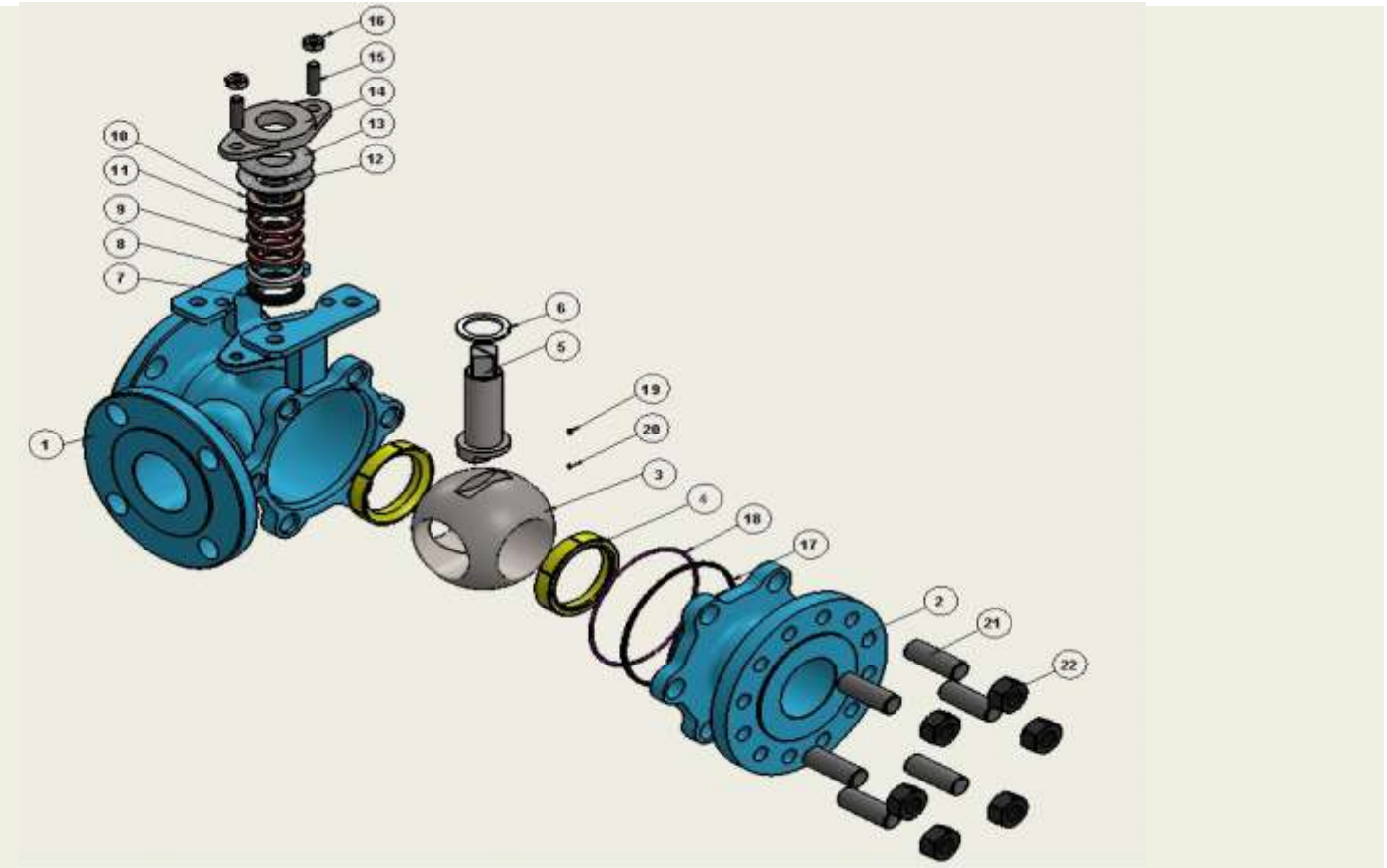
FLOATING BALL VALVE

3 WAY	SERIES U70, U71, U80, U81 #150, #300

3 WAY

SERIES U70, U71, U80, U81
#150, #300

MATERIAL DESCRIPTION



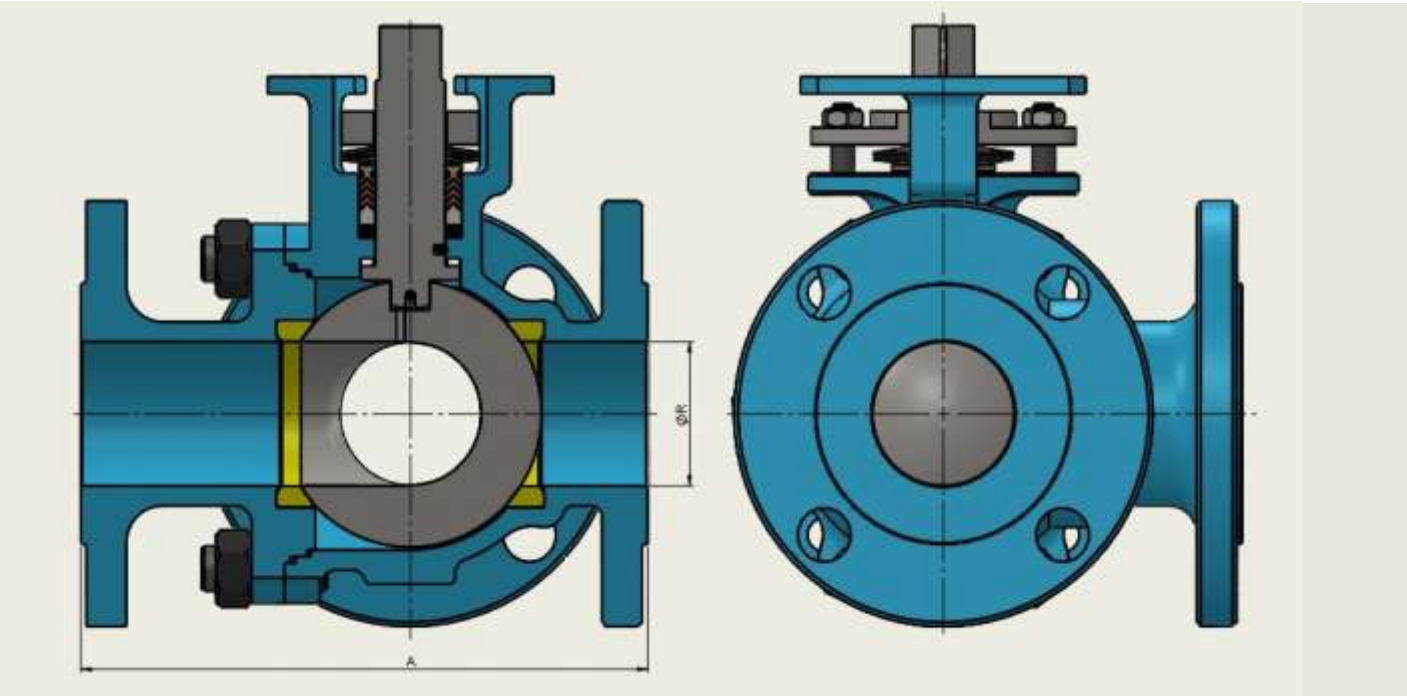
SR. NO.	PART DESCRIPTION	MATERIAL DESCRIPTION
1	BODY	ASTM A 216 GR.WCB / ASTM A 352 GR. LCB / ASTM A351 GR.CF8/ASTM A351 GR.CF8M
2	END PIECE	ASTM A 216 GR.WCB / ASTM A 352 GR. LCB / ASTM A351 GR.CF8/ASTM A351 GR.CF8M
3	BALL	ASTM A 216 GR.WCB / ASTM A 352 GR. LCB / ASTM A351 GR.CF8/ASTM A351 GR.CF8M
4	SEAT	TFM 1600 / PTFE / DELRIN / DEVLON / PEEK / CFT / GFT / PCTFE
5	STEM	17-4PH / SS304 / SS316 / SS316L / SS410
6	STEM WASHER	CFT / GFT
7	STEM SEAL	GRAPHITE
8	RETAINER 1 FOR STEM	GFT
9	V - RING FOR STEM	TFM 1600
10	RETAINER 2 FOR STEM	GFT
11	STEM OUTER O - RING	VITON
12	STEM INNER O - RING	VITON
13	DISK SPRING	55CrV4
14	GLAND FLANGE	ASTM A 216 GR.WCB/ASTM A351 GR.CF8/ASTM A351 GR.CF8M
15	STUD FOR GLAND	ASTM A 193 GR.B7/ASTM A193 GR.B7M/ASTM A193 GR. B8
16	NUT FOR GLAND	ASTM A 194 GR.2H/ASTM A194 GR.2HM/ASTM A194 GR. 8
17	BODY GASKET	GRAPHITE
18	BODY O-RING	VITON
19	ANTISTATIC DEVICE	SS316
20	ANTISTATIC SPRING	SS316
21	STUD FOR BODY	ASTM A 193 GR.B7/ASTM A193 GR.B7M/ASTM A193 GR. B8
22	STUD FOR NUT	ASTM A 194 GR.2H/ASTM A194 GR.2HM/ASTM A194 GR. 8

FLOATING BALL VALVE

3 WAY (L-Port)

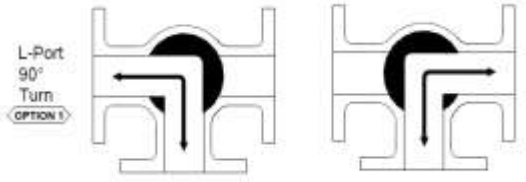
SERIES U70, U71
#150, #300

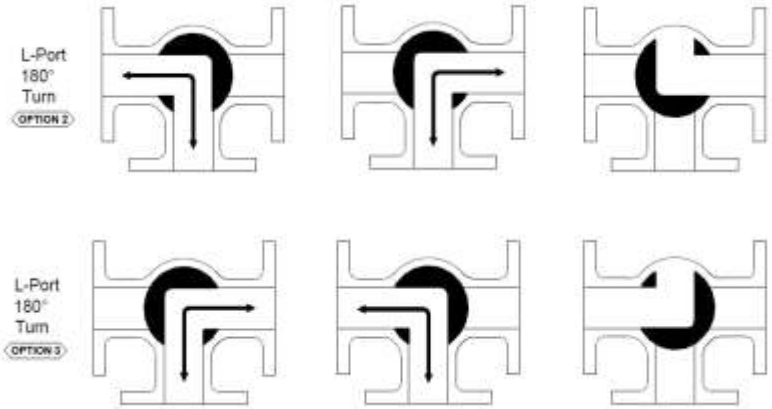
SERIES U70, U71: DIMENSIONS DETAILS



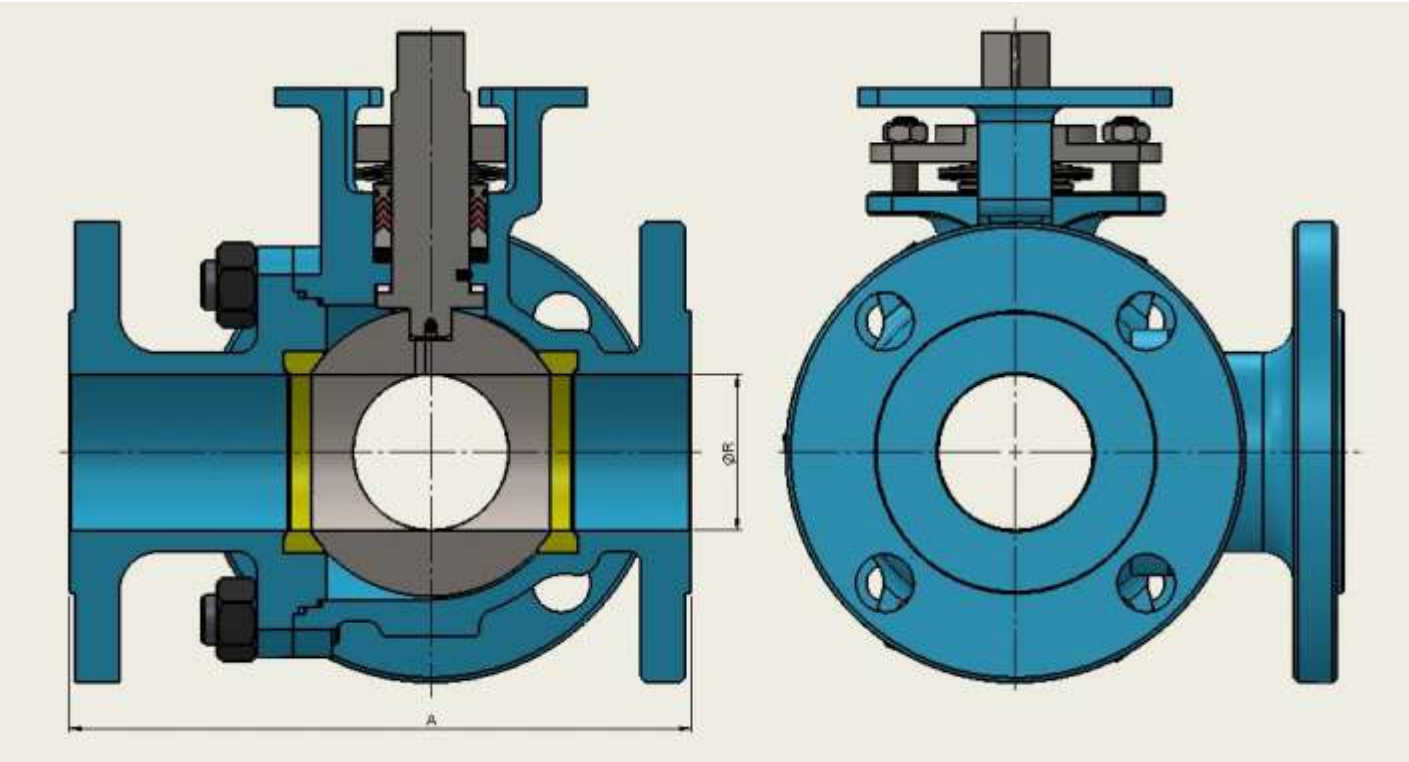
SIZE	A			ØR	
	CLASS 150		CLASS 300	RB	FB
	TWO SEATS	THREE SEATS	TWO/THREE SEATS		
15	106	137	--	--	12.7
20	115	150	--	12.7	19.05
25	125	162.5	--	19.05	25.4
40	162.5	187.5	--	31.8	38.1
50	175	212	--	38.1	50.8
80	200	237	278	57.9	76.2
100	225	300	300	76.2	98
150	263	387	397	102	148
200	450	450	494	148	198
250	525	525	560	198	248

FLOW PATTERNS





SERIES U80, U81: DIMENSIONS DETAILS



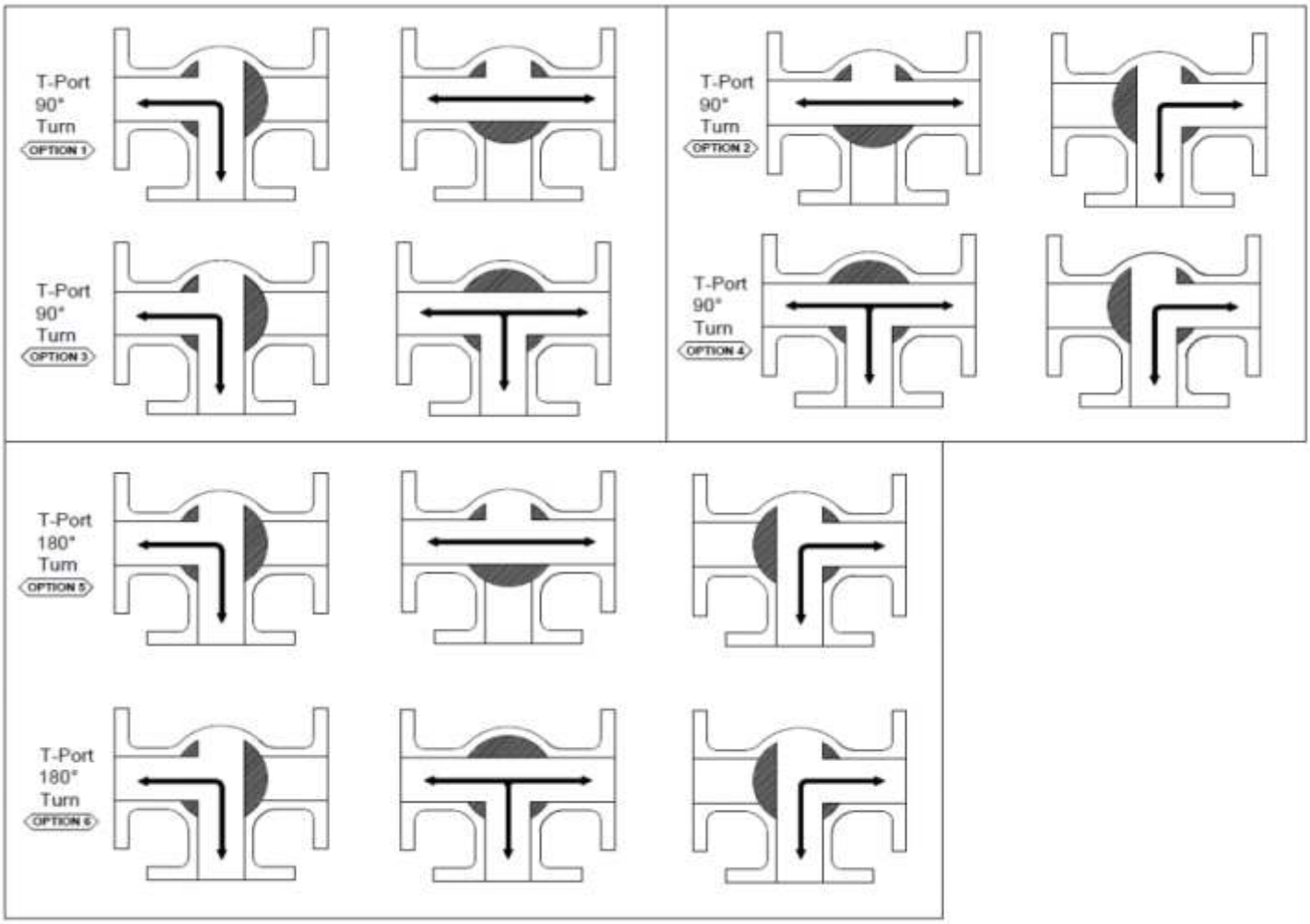
SIZE	A			ØR	
	CLASS 150		CLASS 300	RB	FB
	TWO SEATS	THREE SEATS	TWO/THREE SEATS		
15	106	137	--	--	12.7
20	115	150	--	12.7	19.05
25	125	162.5	--	19.05	25.4
40	162.5	187.5	--	31.8	38.1
50	175	212	--	38.1	50.8
80	200	237	278	57.9	76.2
100	225	300	300	76.2	98
150	263	387	397	102	148
200	450	450	494	148	198
250	525	525	560	198	248

FLOATING BALL VALVE

3 WAY (T-Port)

SERIES U80, U81
#150, #300

FLOW PATTERNS



HIGH PRESSURE VALVE | SERIES HP

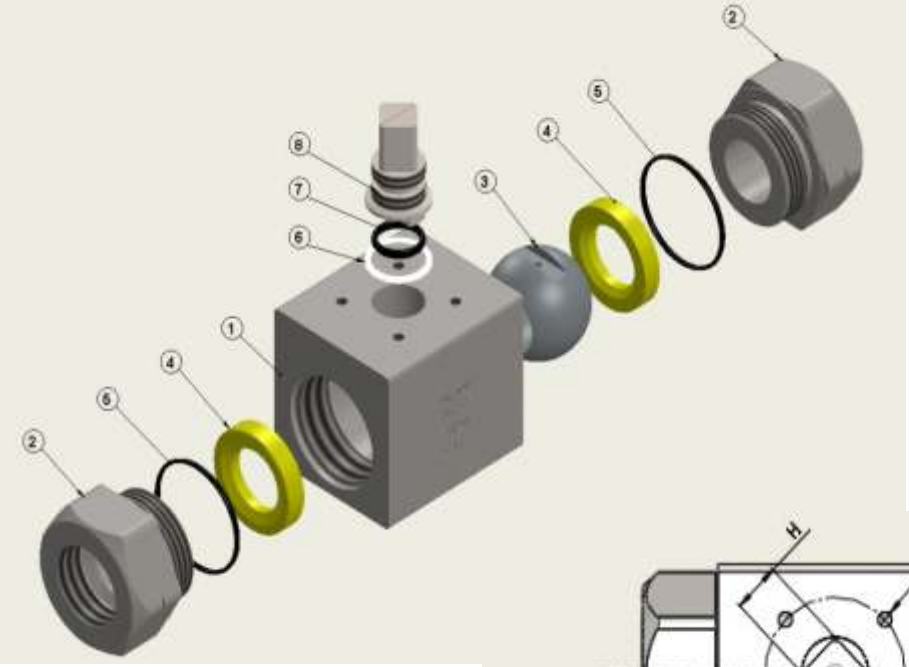
ROTEX
Engineering For The Future

FLOATING BALL VALVE

HIGH PRESSURE VALVE

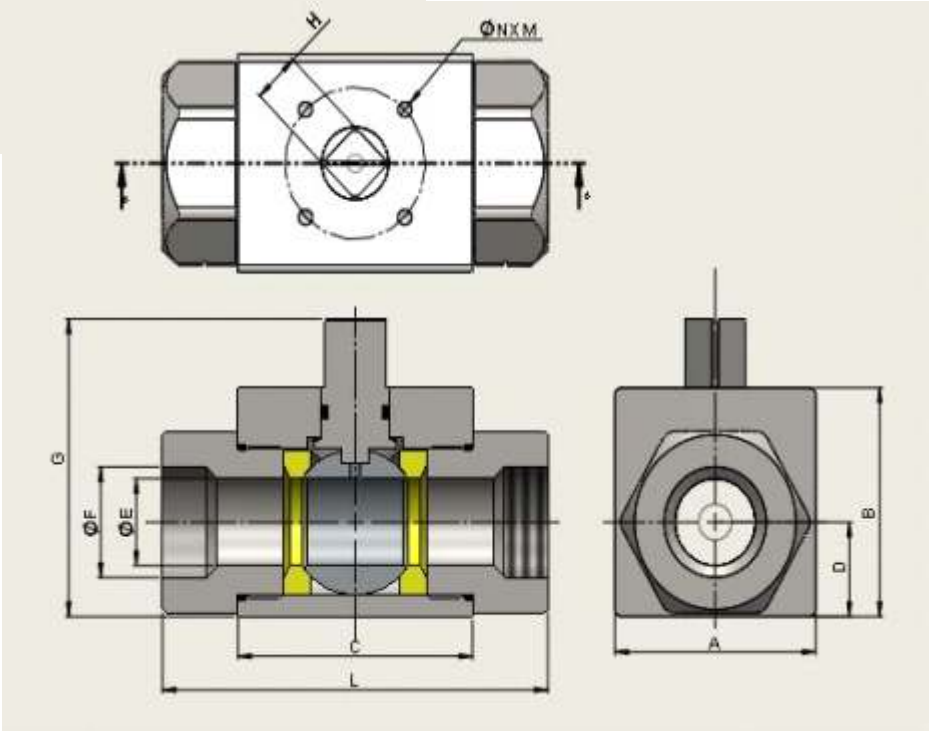
SERIES HP

MATERIAL DESCRIPTION



NO	PART NAME	MATERIAL
1	BODY	ASTM 105
2	ADAPTER	ASTM 105
3	BALL	CF8M + CC
4	SEAT	DEVLON/ DELRIN
5	O' RING	VITON
6	STEM THRUST WASHER	CFT
7	O' RING FOR STEM	VITON
8	STEM	SS 316

DIMENSION DETAILS



SIZE	SERIES - HP									
	A	B	C	D	E	F	G	L	H	ØN X M
½"	35	40	52	17	12	G 1/2"	55.2	84	8	M6X36
3/4"	45	58	60	24.25	15	G 3/8"	77.3	94	8	M6X36
1"	55	53	70	26	24	G 1"	82	115	8	M6X36
1 1/2"	75	85	83	37.5	30	G 1 1/2"	101	130	12	M8X50
2"	80	87	85	45	38	G 2"	128	159	14	M8X70

INHOUSE FACILITIES

Horizontal Testing Machine

- Fully automated test bench
- Clamping capacity of 600 t
- Valve testing upto 36"
- SCADA operated system
- All test results are automatically captured
- Hydrostatic,Pneumatic Testing of Valves in single setup

Fire Safe Test Rig

- Fully automated, SCADA controlled fire test rig
- All readings are through transmitters and single point control and readings
- Facilities to Perform Fire Safe Test are in accordance with API 607/API 6FA
- The test exposes the valve to a fire flame at 750°C -1000°C to verify proper sealing of the valve

STANDARDS & SPECIFICATIONS

1) VALVE DESIGN AS PER BSEN-17292,API 6D
2) VALVE FACE TO FACE DIMENSIONS AS PER ASME 16.10
3) VALVE END DIMENSIONS AS PER ASME B16.5,ASME B16.25,ASME B16.11
4) VALVE TESTING AS PER API - 598 , BSEN 12266 PART - I & II

ROTEX
Engineering For The Future

FLOATING BALL VALVE

FIRE SAFE CERTIFICATES


DET NORSKE VERITAS
FIRE SAFE TEST CERTIFICATE
FIRE TEST WITNESS REPORT
Range Qualified:


DET NORSKE VERITAS
FIRE SAFE TEST CERTIFICATE
FIRE TEST WITNESS REPORT
Range Qualified:


DET NORSKE VERITAS
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FIRE TEST WITNESS REPORT
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FIRE SAFE TEST CERTIFICATE
FIRE TEST WITNESS REPORT
Range Qualified:


DET NORSKE VERITAS
FIRE SAFE TEST CERTIFICATE
FIRE TEST WITNESS REPORT
Range Qualified:

CERTIFICATES

Certificate of Registration

APIQR® REGISTRATION NUMBER

2640

This certifies that the quality management system of

ROTEX MANUFACTURERS & ENGINEERS PRIVATE LIMITED
Manpada Road
Dombivli (East), Maharashtra
India

has been assessed by the American Petroleum Institute Quality Registrar (APIQR®) and found to be in conformance with the following standard:

ISO 9001:2008

The scope of this registration and the approved quality management system applies to the:

Design, Manufacture and Supply of Ball Valves and Spare Valve Parts

APIQR® approves the organization's justification for excluding:

No Exclusions Identified as Applicable

Effective Date: DECEMBER 19, 2014
Expiration Date: DECEMBER 19, 2017
Registered Since: DECEMBER 19, 2014

Certificate of Registration

REGISTRATION NO. Q1 2514

ROTEX MANUFACTURERS & ENGINEERS PRIVATE LIMITED
Manpada Road
Dombivli (East), Maharashtra
India

has been assessed by the American Petroleum Institute and found to be in conformance with the following:

API Specification Q1

The scope of this registration and the approved quality management system applies to the:

Design, Manufacture and Supply of Ball Valves and Spare Valve Parts

API approves the organization's justification for excluding:

No Exclusions Identified as Applicable

Effective Date: DECEMBER 19, 2014
Expiration Date: DECEMBER 19, 2017
Registered Since: DECEMBER 19, 2014

API Spec Q1 Registered

Certificate of Authority to use the Official API Monogram

License Number: 6D-1529 ORIGINAL

The American Petroleum Institute hereby grants to

ROTEX MANUFACTURERS & ENGINEERS PRIVATE LIMITED
Manpada Road
Dombivli (East), Maharashtra
India

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and API-6D and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with the certificate number: 6D-1529

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

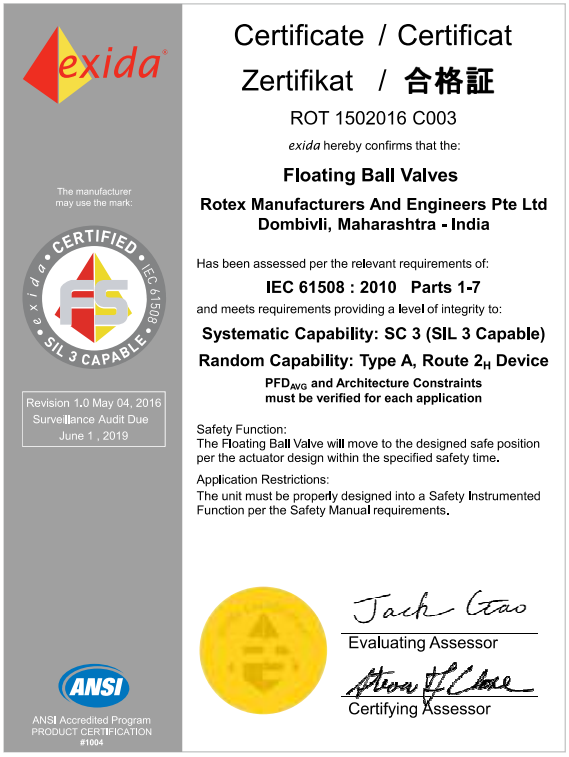
The scope of this license includes the following: Ball Valves

QMS Exclusions: No Exclusions Identified as Applicable

Effective Date: DECEMBER 19, 2014
Expiration Date: DECEMBER 19, 2017

American Petroleum Institute

To verify the authenticity of this license, go to www.api.org/compositelic.



exida

The manufacturer may use the mark:

exida CERTIFIED IEC 61508 SIL 3 CAPABLE

Revision 1.0 May 04, 2016
Surveillance Audit Due
June 1 , 2019

ANSI Accredited Program
PRODUCT CERTIFICATION
#1004

Certificate / Certificat
Zertifikat / 合格証

ROT 1502016 C003

exida hereby confirms that the:

Floating Ball Valves

Rotex Manufacturers And Engineers Pte Ltd
Dombivli, Maharashtra - India

Has been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-7

and meets requirements providing a level of integrity to:

Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type A, Route 2_H Device

PFD_{AVG} and Architecture Constraints must be verified for each application

Safety Function:
The Floating Ball Valve will move to the designed safe position per the actuator design within the specified safety time.

Application Restrictions:
The unit must be properly designed into a Safety Instrumented Function per the Safety Manual requirements.

Evaluating Assessor

Certifying Assessor

exida

The manufacturer may use the mark:

exida CERTIFIED IEC 61508 SIL 3 CAPABLE

Revision 1.0 May 04, 2016
Surveillance Audit Due
June 1 , 2019

ANSI Accredited Program
PRODUCT CERTIFICATION
#1004

Certificate / Certificat
Zertifikat / 合格証

ROT 1502016 C002

exida hereby confirms that the:

Jacketed Floating Ball Valves

Rotex Manufacturers And Engineers Pte Ltd
Dombivli, Maharashtra - India

Has been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-7

and meets requirements providing a level of integrity to:

Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type A, Route 2_H Device

PFD_{AVG} and Architecture Constraints must be verified for each application

Safety Function:
The Jacketed Floating Ball Valve will move to the designed safe position per the actuator design within the specified safety time.

Application Restrictions:
The unit must be properly designed into a Safety Instrumented Function per the Safety Manual requirements.

Evaluating Assessor

Certifying Assessor

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FLOATING BALL VALVE

AUTOMATION & CUSTOMIZATION

ORDERING CODE

MODEL — a — b — c — d

VALVE MODEL	
FB 2PC	62F
RB 2PC	62R
FB #800 3PC	65F
RB #800 3PC	65R
FB 1PC (FULL JACKET)	J30
FB 1PC (PARTIAL JACKET)	J35
3-WAY L-PORT FB	U70
3-WAY L-PORT RB	U71
3-WAY T-PORT FB	U80
3-WAY T-PORT RB	U81
HIGH PRESSURE	HP

CLASS	
150#	01
300#	03
600#	06
800#	08

END CONNECTION	
2PC FLANGE RF	01
2PC FLANGE FF	02
3PC SCREWED NPT	04
3PC SCREWED BSP	05
BUTT WELD	07
1PC JACKTED	10

SIZE	
DN15	AA
DN20	BB
DN25	CC
DN32	DD
DN40	EE
DN50	FF
DN65	GG
DN80	HH
DN100	JJ
DN150	KK
DN200	LL
DN250	MM

e — f — g

OPERATION	
LEVER OPERATED	A
BARE STEM	B
GEAR OPERATED	G
STEM EXTENSION 100mm LEVER	L
STEM EXTENSION 100 mm BARE	T
STEM EXTENSION 200mm LEVER	L1
STEM EXTENSION 350mm LEVER	L2

BALL TYPE	
SOLID BALL	3
V PORT BALL	4
SEGMENTED BALL	5
HOLLOW BALL	8
3-WAY OPTION (1-6)	A-F

BODY MATERIAL	
WCB	31
CF8	32
CF8M	33
CF3	46
CF3M	34
LCB	39
WCC	41
HAST-C	43

h — i — j

BALL MATERIAL	
SS410	11
SS304	14
SS316	12
SS304L	15
SS316L	13
HAST-C	20
INC-825	21
INC-718	22

STEM MATERIAL	
17-4PH	24
SS304	26
SS316	27
SS304L	34
SS316L	28
INCONEL	35

SEAT MATERIAL	
TFM1600	TF
PTFE	PT
CFT	CF
GFT	GT
PEEK	PE
PCTFE	PC
DEVLON	DV
DELRIN	EL

k — l — m

FASTENERS	
B7/2H	51
B7M/2HM	52
B8/8	53
B8M/8M	54
L7/7	55

MFG. TYPE	
SAND CASTING	S
INVESTMENT CAS	I
FORGING	F

CERTIFICATION	
CE	C
IBR	I
API	A
FIRE SAFE	F
NON FIRE	N

* Materials in compliance with NACE MR0103/ MR0175 are available on request.

ROTEX

Engineering For The Future

ROTEX GROUP SALES HEAD QUARTER
B/703/704, Western Edge-II,
Off Western Express Highway,
Borivli (East), Mumbai-400066
Ph: +91 22 42111444
Fax: +91 22 42111400
Email: sales-bby@rotexautomation.com

ROTEX MANUFACTURERS AND
ENGINEERS PRIVATE LIMITED
UNIT 1
Manpada Road, Dombivli (E) - 421204
Maharashtra, INDIA.
Ph. : +91 251 2871033/ 2871390/ 2871196/
2871989/ 2870890
Fax : +91 251 2871191/ 2870663
E-mail : rotexdbl@rotexautomation.com

ROTEX AUTOMATION LIMITED
UNIT 1
987/11, GIDC Makarpura,
Vadodara - 390010, Gujarat, INDIA.
Ph. : +91 265 2638136/ 2638795/ 46
Fax : +91 265 2638130
Email : rotexbrd@rotexautomation.com

ROTEX MANUFACTURERS AND
ENGINEERS PRIVATE LIMITED
UNIT 2
Plot No. E-61 , Additional
Ambarnath MIDC
Ambarnath (East) – 421 506
Dist Thane , Maharashtra, India

ROTEX AUTOMATION LIMITED
UNIT 2
C - 1 B/ 1501, 4 & 5, GIDC
Vithal Udyognagar - 388121,
Gujarat, INDIA.
Ph. : +91 2692 236224/ 236292/ 236399
Fax : +91 2692 236442
Email : rotexvun@rotexautomation.com

OVERSEAS:

ROTEX Controls B.V.
Aventurijn 222
3316 LB Dordrecht
The Netherlands
Phone : +31 78 618 21 07
Email : info@rotexcontrols.nl

ROTEX Controls, Inc.
21 Sullivan Parkway
Fort Edward, NY 12828
Phone: (888) 813 – 9772
Fax : (866) 478 – 9620
Email : sales@rotexcontrols.com

MAGWEN

MAGWEN Valves GmbH
Am Biotop 1
39171
Osterweddingen/Suelzeta
Ph. : +49 39205 676 13
Fax : +49 39205 676 50
E-mail : sales@magwen.de
Web : www.magwen.de

www.rotexautomation.com

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