

## **Floating Ball Valves**

**Carbon Steels ● Stainless Steels ● Alloy Steels**



**CHEMTROLS VALVES : Created to conquer.....!**

## About Chemtrols

Founded in 1975, Chemtrols industries is the leading solutions provider in process analysis, emission and ambient monitoring, flow metering and custody transfer and for demanding applications of superheat steam. Our commitment in nurturing long term association with our customers and technology partners have helped us in creating impeccable credentials across all the sectors where we operate.

### Manufacturing Facilities :-

- 👉 State-of-the art production facilities in Kundaim, Goa and in Pune, Maharashtra; spread over a lakh of sq. feet in aggregate.
- 👉 ISO, 9001-2008 certified operations.
- 👉 Facility accredited under CE marking, ASME, U,PP and R Stamps as well as PED
- 👉 Facility and products approved by Global Engineering Consultants and Contracting companies.
- 👉 Well-equipped testing and inspection facilities.
- 👉 World class finishing and packaging processes.
- 👉 Well documented and appropriately preserved inventories.
- 👉 And above all competent and caring human resources.



# CHEMTROLS RANGE

## Ball Valves

Floating ball Valves: Carbon steels, stainless steels and variety of alloy steels. Two piece and three piece designs. Soft seated and metal seated; 150, 300 & 600 lbs in cast version, 800 lbs in Forged Bar. Full Bore and reduced bore; sizes ½ “to 8”.



## Trunnion-mounted Ball Valves

Carbon steels, stainless steels and variety of Alloy steels. Two piece and three piece designs. Soft seated and metal seated. 150, 300 & 600 lbs in cast version- in forged Sizes: 3 “to 24”



## Butterfly Valves

Wafer, Lugged & Flanged: - Cast iron, Cast Steel and Stainless Steel Body; Moulded seat, Pressure classes 125 lbs and 150 lbs.

Sizes: 3 “to 24”

Triple-offset, Metal seated: - Carbon steels, Stainless Steels and variety of Alloy steels, Pressure classes 150, 300 & 600 lbs

Sizes: 3 “to 24”



## Gate, Globe & Check Valves

In cast version: Carbon Steels and Stainless Steels, 150, 300 & 600 lbs

sizes ½ “to 12”

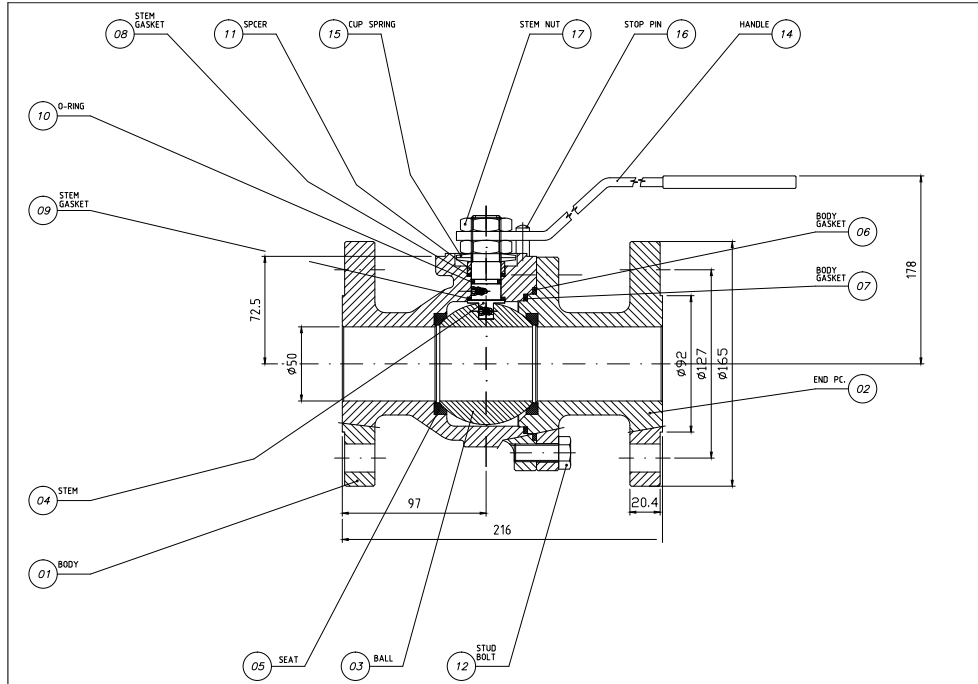
In Forged: Carbon Steels, Stainless Steels and Alloy Steels, 150 to 2500 lbs

sizes ½ “ to 2”



## MATERIAL OF CONSTRUCTION

### General Assembly Drawing (GAD) for Floating Ball Valves



PART DESCRIPTION	AVAILABLE MATERIAL
BODY	ASTM A216 WCB, A351 CF8, A351 CF8M, A351 CF3, A351 CF3M
ADAPTER	ASTM A216 WCB, A351 CF8, A351 CF8M, A351 CF3, A351 CF3M
BALL	ASTM A105, 316 SS, 410 SS
STEM	PLATED CARBON STEEL, 316 SS, 304 SS
STEM THRUST WASHER	PTFE / CFT
SEAT	TFM1600 / RTFE / PEEK / DELRIN / DEVLON
STEM PACKING	GRAPHITE / PTFE
RETAINER 1 FOR STEM	RTFE
V-RING PACKING FOR STEM	TFM1600 / RTFE
RETAINER 2 FOR STEM	RTFE
BODY GASKET	GRAPHITE / VIRGIN PTFE / RTFE
BODY STUD	ASTM A193 B7 & B7M, A320 L7 & L7M
BODY NUT	ASTM A194 2H & 2HM, A320 L7 & L7M
DISC SPRING	55CrV4
GLAND FLANGE	ASTM A216 WCB, A351 CF8, A351 CF8M, A351 CF3, A351 CF3M
GLAND STUD	ASTM A193 B7 & B7M, A320 L7 & L7M
GLAND NUT	ASTM A194 2H & 2HM, A320 L7 & L7M
STEM SEAL	VITON
LEVER	CS / SS / DI

### Design & Testing Standard

**Valve designs conform to ASME B 16.34, API 6D & BS EN 1729 Standards:** These standards cover new construction including pressure-temperature ratings and dimensions for cast and forged, with flanged, threaded and welding end valves.

Face to Face Dimension	: ASME B16.10 / API 6D
Flange Dimensions	: ASME B 16.5
Butt welded Valve End	: ASME B 16.25 / B 31.3 / B31.4 / B31.8
Pressure Tests	: API 598 / BSEN 12266-I / API 6D
Fire Safe Tests	: API 607 / API 6FA

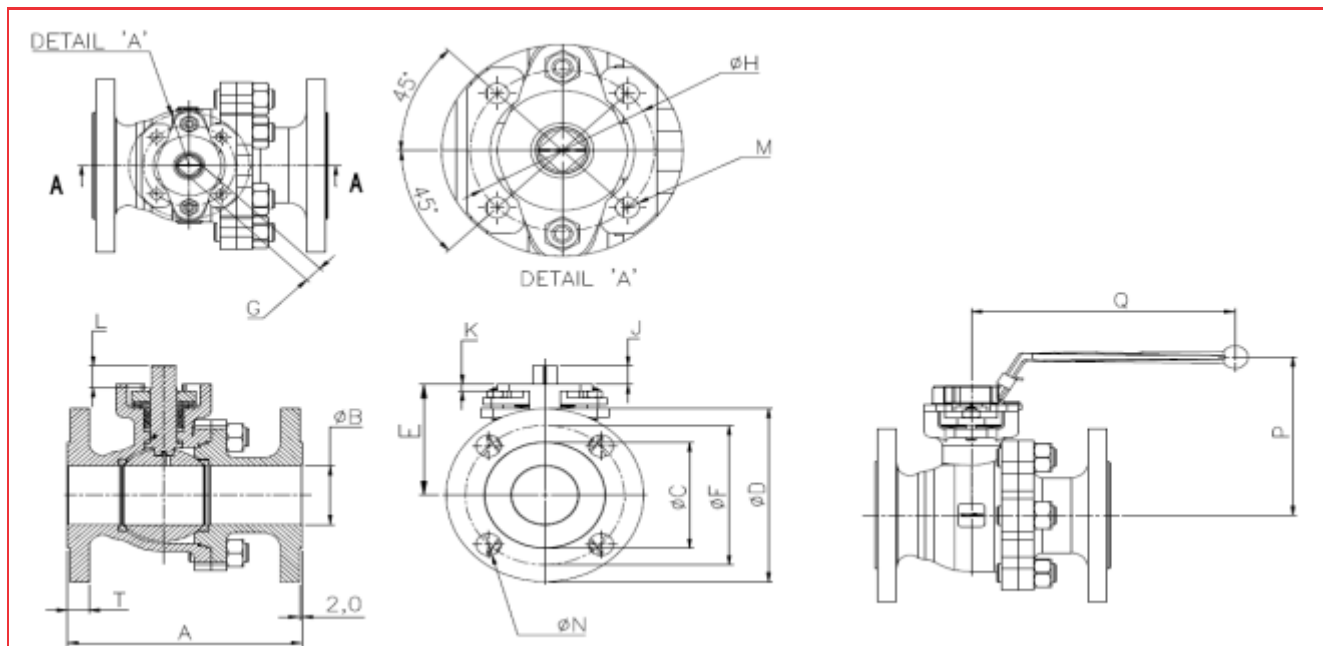
Inspection of castings is done as per MSS-SP 53, 54, 55, 59, 93 & 94





## PRESSURE FLOW COEFFICIENT Cv (USGPM) TABLE

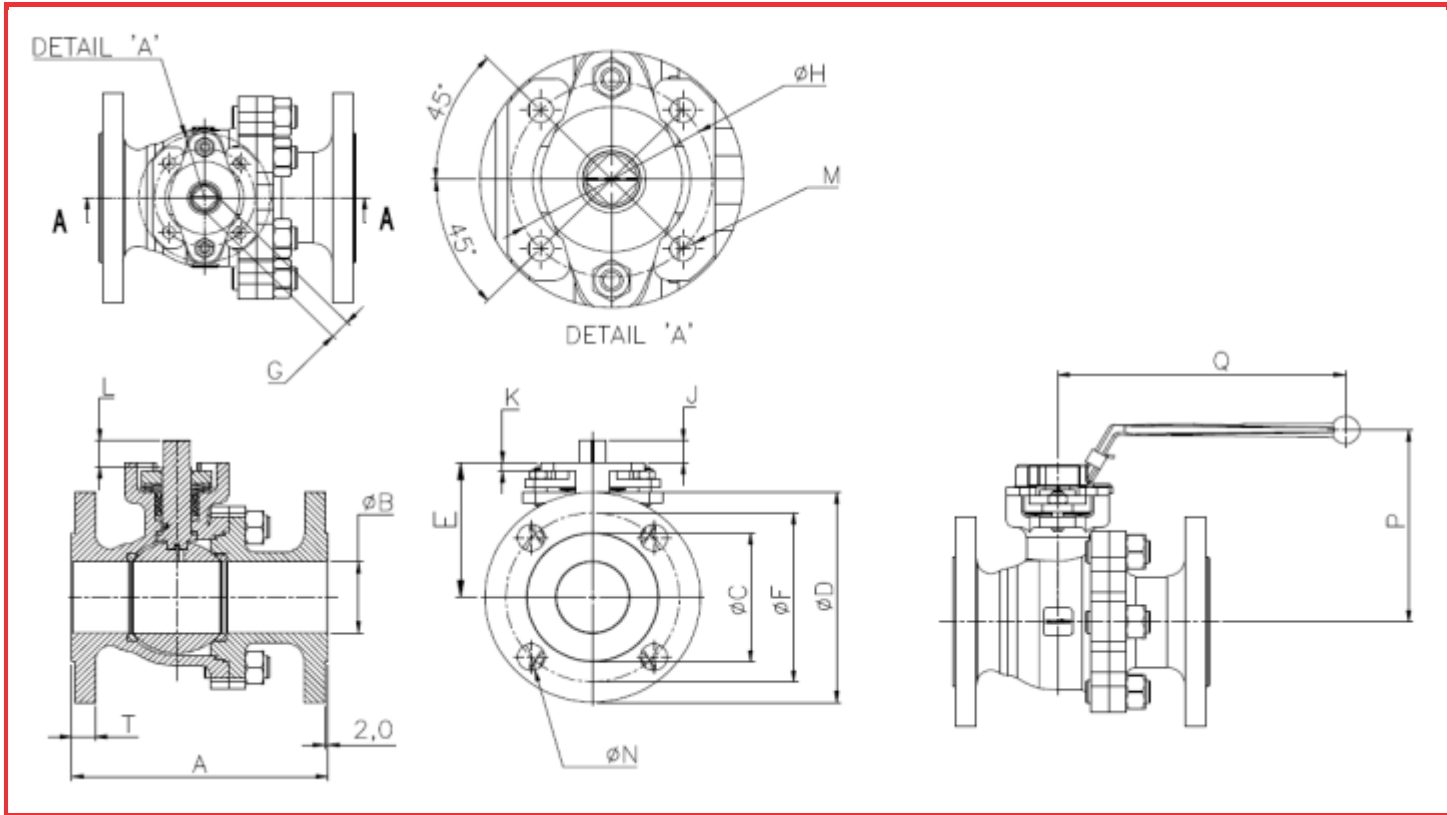
SIZE	150#	300#
1/2" FB	20	18
3/4" RB	15	13
3/4" FB	45	40
1" RB	40	75
1" FB	80	70
1 1/2" RB	100	90
1 1/2" FB	210	200
2" RB	133	120
2" FB	501	400
2 1/2" RB	360	315
2 1/2" FB	800	710
3" RB	280	215
3" FB	1340	1033
4" RB	595	589
4" FB	2490	2100
6" RB	1100	915
6" FB	5283	5400
8" RB	2460	2387
8" FB	11000	11500



ALL DIMENSIONS ARE IN mm.

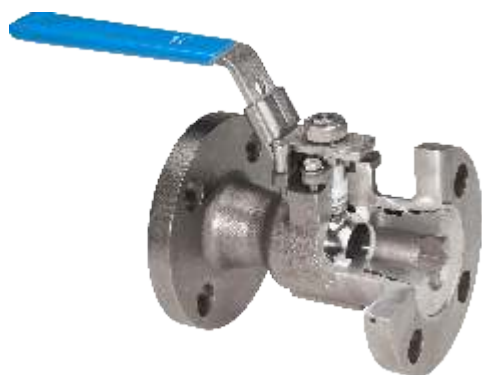
### SERIES 62F FULL BORE 150 CLASS

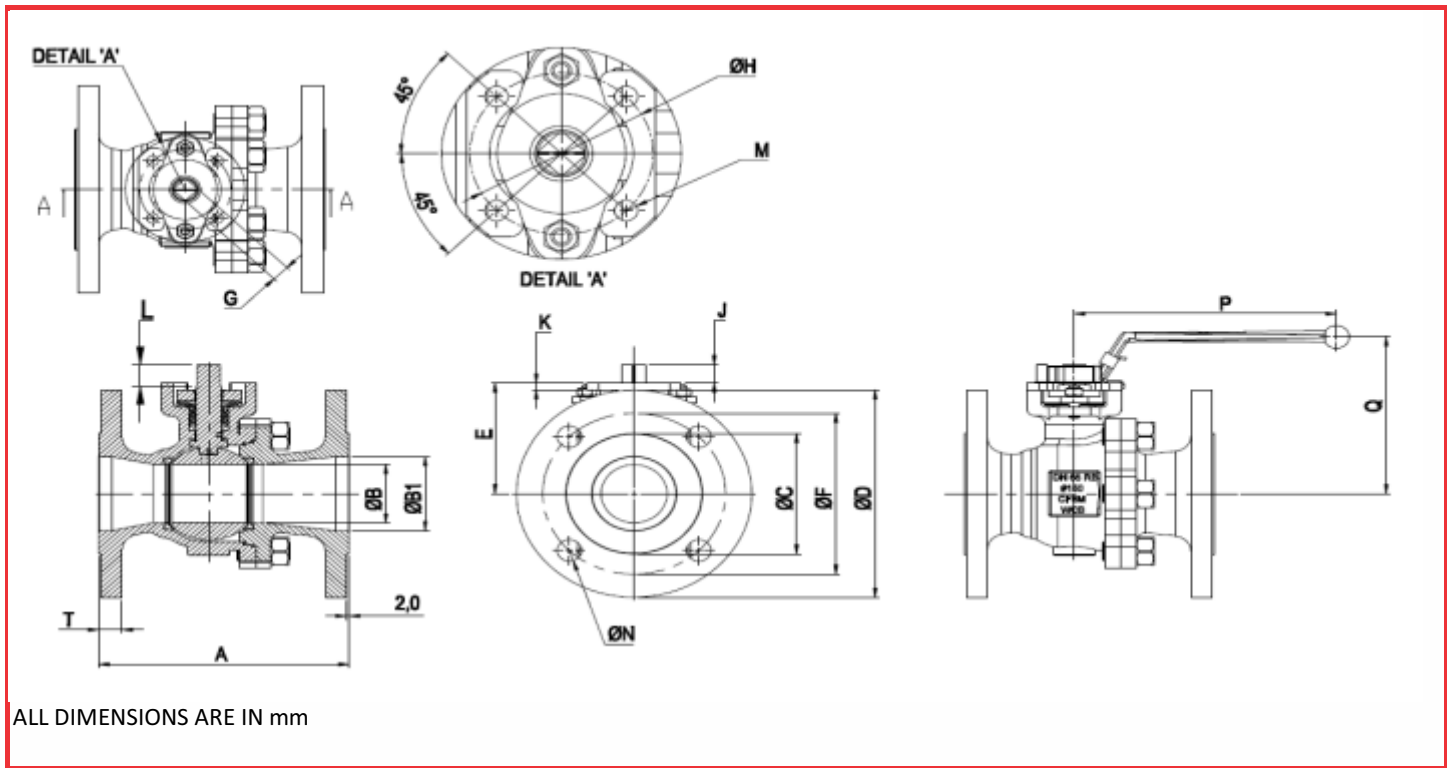
VALVE SIZE	INCH	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	6"	8"
	DN	15	20	25	32	40	50	65	80	100	150	200
A	108	117	127	140	165	178	190	203	229	267	292	
T	10	10.9	11.6	13.2	14.7	16.3	17.9	19.5	24.3	25.9	29	
ØB	12.8	19.1	25.4	32	38.1	50.8	64.1	76.2	102	150.8	203	
ØC	35	43	51	63.5	73	92	105	127	157	216	269.9	
ØD	90	100	110	115	125	150	180	190	230	280	345	
G	8	9	9	9	11	14	14	17	17	22	27	
ØF	60.3	69.9	79.4	88.9	98.4	120.7	139.7	152.4	190.5	241.3	298.5	
ØN	15.9	15.9	15.9	15.9	15.9	19.1	19.1	19.1	19.1	22.4	22.4	
NO. OF HOLES	4	4	4	4	4	4	4	4	8	8	8	
J	1.5	8.5	10	11	11	18.5	18.5	24	24	43	49.2	
K	5	6.5	6.5	6	6	6	6	12	12	13	13	
L	11	10.5	12	12	17	21.5	21.5	27	26.3	47	56	
E	38.3	52.5	57.8	64.6	77.7	96	105.8	133	153	207	255	
ØH	50	50	50	50	50	70	70	102	102	125	140	
ISO 5211 MTG	F05	F05	F05	F05	F05	F07	F07	F07	F10	F10	F12	F14
M	M6*	M6*	M6*	M6*	Ø8	Ø9	Ø9	Ø11	Ø11	Ø13	Ø18	
NO. OF HOLES	4	4	4	4	4	4	4	4	4	4	4	
P	150	150	150	150	150	200	200	250	250	----	----	
Q	68	81	85	95	106	137	146	168	189	----	----	
WEIGHT (Kg.)	2.5	3.5	4.5	5.5	6.5	11	16	20.5	39	74	118	
TORQUE (Nm)	4	6	7	12	19	27	55	75	140	310	440	



**SERIES 66F FULL BORE 300 CLASS**

VALVE SIZE	INCH DN	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	6"	8"
A	140	152	165	178	190	216	241	282	305	403	419	
T	14.7	16.3	17.9	19.5	21.1	22.7	25.9	29	32.2	37	41.7	
ØB	12.8	19.1	25.4	32	38.1	50.8	64.1	76.2	102	150.8	203	
ØC	34.9	42.9	50.8	63.5	73	92	104.8	127	157.2	215.9	269.9	
ØD	95	115	125	135	155	165	190	210	255	320	380	
G	8	9	9	9	11	14	14	17	17	27	27	
ØF	66.7	82.6	88.9	98.4	114.3	127	149.2	168.3	200	269.9	330.2	
ØN	16	19.1	19.1	19.1	22.4	19.1	22.4	22.4	22.4	22.4	25.4	
NO. OF HOLES	4	4	4	4	4	8	8	8	8	12	12	
J	1.5	8.5	10	11	11	18.5	18.5	24	24	43	49.2	
K	5	6.5	6.5	6.5	6	6	6	12	12	13	13	
L	11	10.5	12	12	17	21.5	21.5	27	26.3	47	56	
E	38.3	52.5	57.8	64.6	77.7	96	105.8	133	153	227.6	255	
ØH	50	50	50	50	50	70	70	102	102	125	140	
ISO 5211 MTG	F05	F05	F05	F05	F05	F07	F07	F10	F10	F12	F12	
M	M6*	M6*	M6*	M6*	Ø8	Ø9	Ø9	Ø11	Ø11	Ø13	Ø18	
NO. OF HOLES	4	4	4	4	4	4	4	4	4	4	4	
P	150	150	150	150	150	200	200	250	250	----	----	
Q	68	81	85	95	106	137	146	168	189	----	----	
WEIGHT (Kg.)	3	4.5	6	8	9.5	14	20	28	46	105	130	
TORQUE (Nm)	6	9	15	19	38	46	65	115	200	310	725	

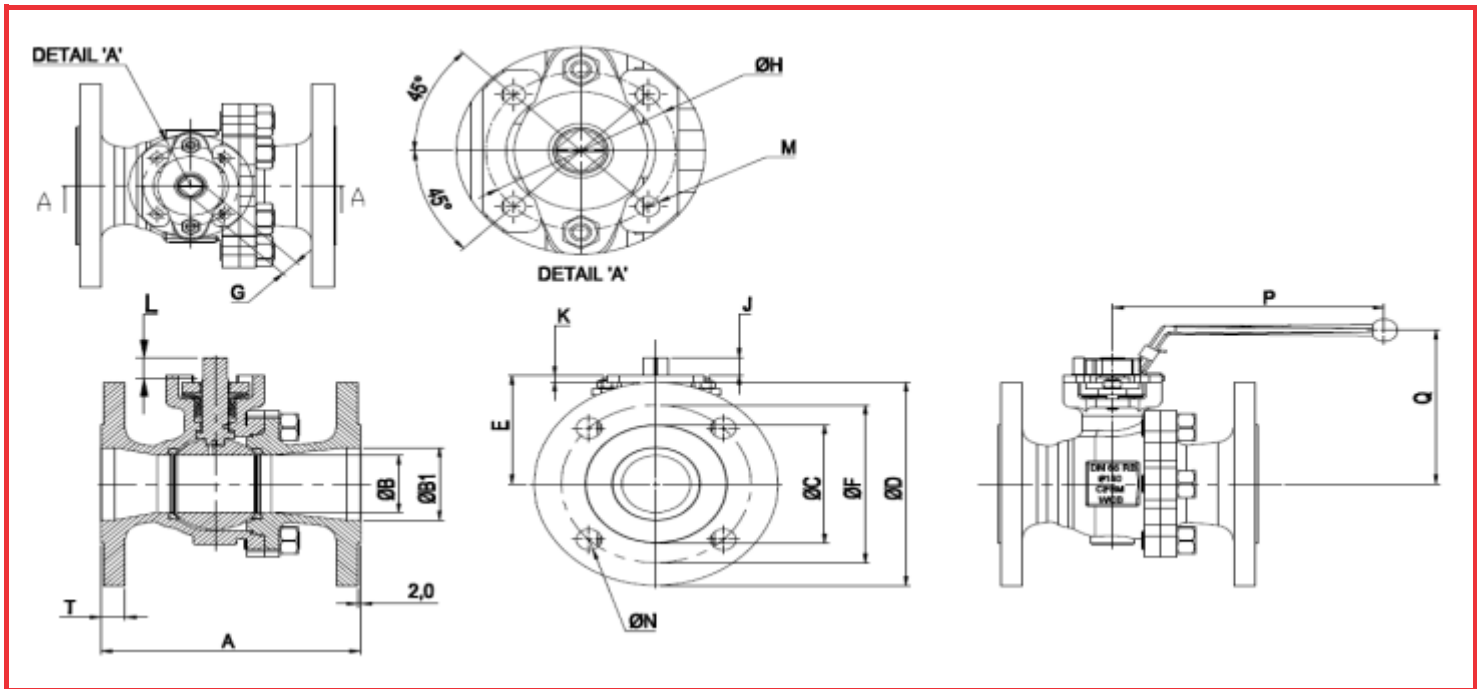




**SERIES 62R REDUCED BORE CLASS 150**

VALVE SIZE	INCH DN	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	6"	8"
A	108	117	127	140	165	178	190	203	229	267	292	
T	10	10.9	11.6	13.2	14.7	16.3	17.9	19.5	24.3	25.9	29	
ØB	10	12.8	19.1	25.4	25.4	38.1	50.8	64.1	76.2	102	150.8	
ØB1	12.8	19.1	25.4	32	38.1	50.8	64.1	76.2	102	150.8	203	
ØC	35	43	51	63.5	73	92	105	127	157	216	269.9	
ØD	90	100	110	115	125	150	180	190	230	280	345	
G	8	8	9	9	9	11	14	14	17	17	22	
F	60.3	69.9	79.4	88.9	98.4	120.7	139.7	152.4	190.5	241.3	298.5	
ØN	15.9	15.9	15.9	15.9	15.9	19.1	19.1	19.1	19.1	22.4	22.4	
NO. OF HOLES	4	4	4	4	4	4	4	4	8	8	8	
J	1.5	1.5	8.5	10	10	11	16	16	14	16	21	
K	5	5	6.5	6.5	6	6	6	6	12	12	13	
L	9	11	10.5	12	12	13	19	19	17	18.5	25	
E	38.3	38.3	52.5	57.8	57.8	77.7	96	105.8	133	153	207	
ØH	50	50	50	50	50	50	70	70	102	102	125	
ISO 5211 MTG	F05	F05	F05	F05	F05	F05	F07	F07	F10	F10	F12	
HOLEØ	M6*	M6*	M6*	M6*	M6*	Ø8	Ø9	Ø9	Ø11	Ø11	Ø13	
NO. OF HOLES	4	4	4	4	4	4	4	4	4	4	4	
P	150	150	150	150	150	150	200	200	250	250	----	
Q	55	68	81	85	95	106	137	146	168	189	-----	
WEIGHT OF (Kg.)	2	3	4.5	4.5	5	8	12.5	16.2	25	45	82	
TORQUE (Nm)	0	0	0	0	0	0	0	0	0	0	0	





ALL DIMENSIONS ARE IN mm

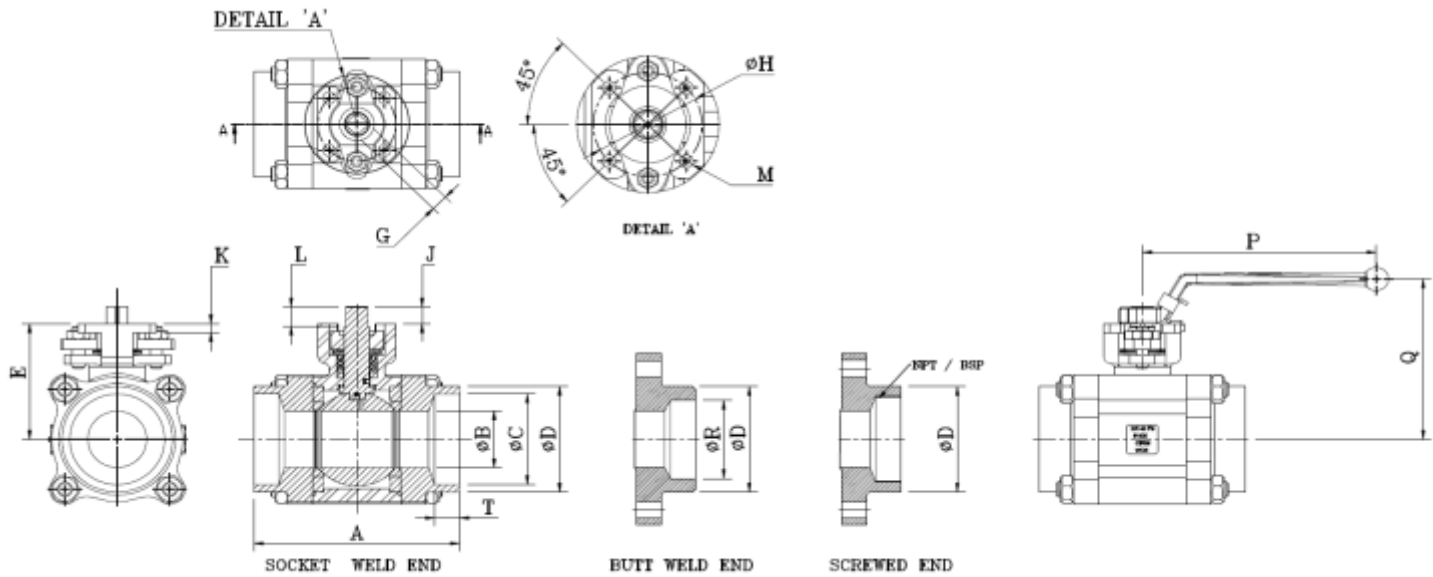
FOR CLASS 150 VALVES UP TO 150 mm ARE LEVER OPERATED.  
ABOVE 150 mm ARE GEAR OPERATED.

### SERIES 66R REDUCED BORE CLASS 300

VALVE SIZE	INCH	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	6"	8"
	DN	15	20	25	32	40	50	65	80	100	150	200
A		140	152	165	178	190	216	241	282	305	403	419
T		14.7	16.3	17.9	19.5	21.1	22.7	25.9	29	32.2	37	41.7
ØB		10	12.8	19.1	25.4	25.4	38.1	50.8	64.1	76.2	102	150.8
ØB1		12.8	19.1	25.4	32	38.1	50.8	64.1	76.2	102	150.8	203
ØC		34.9	42.9	50.8	63.5	73	92	104.8	127	157.2	215.9	269.9
ØD		95	115	125	135	155	165	190	210	255	320	380
G		8	8	9	9	9	11	14	14	17	17	22
F		66.7	82.6	88.9	98.4	114.3	127	149.2	168.3	200	269.9	330.2
ØN		15.8	19.1	19.1	19.1	22.4	19.1	22.4	22.4	22.4	22.4	25.4
NO. OF HOLES		4	4	4	4	4	8	8	8	8	12	12
J		1.5	1.5	8.5	10	10	11	16	16	14	16	21
K		5	5	6.5	6.5	6.5	6	6	6	12	12	13
L		9	11	10.5	12	12	13	19	19	17	18.5	25
E		38.3	38.3	52.5	57.8	57.8	77.7	96	105.8	133	153	207
ØH		50	50	50	50	50	50	70	70	102	102	125
ISO 5211 MTG		F05	F05	F05	F05	F05	F05	F07	F07	F10	F10	F12
M		M6*	M6*	M6*	M6*	M6*	Ø8	Ø9	Ø9	Ø11	Ø11	Ø13
NO. OF HOLES		4	4	4	4	4	4	4	4	4	4	4
P		150	150	150	150	150	150	200	200	250	250	---
Q		55	68	81	85	95	106	137	146	168	189	---
WEIGHT (Kg.)		4	5.2	6	7	11	12	24	31	46	95	143
TORQUE (Nm)		0	0	0	0	0	0	0	0	0	0	0



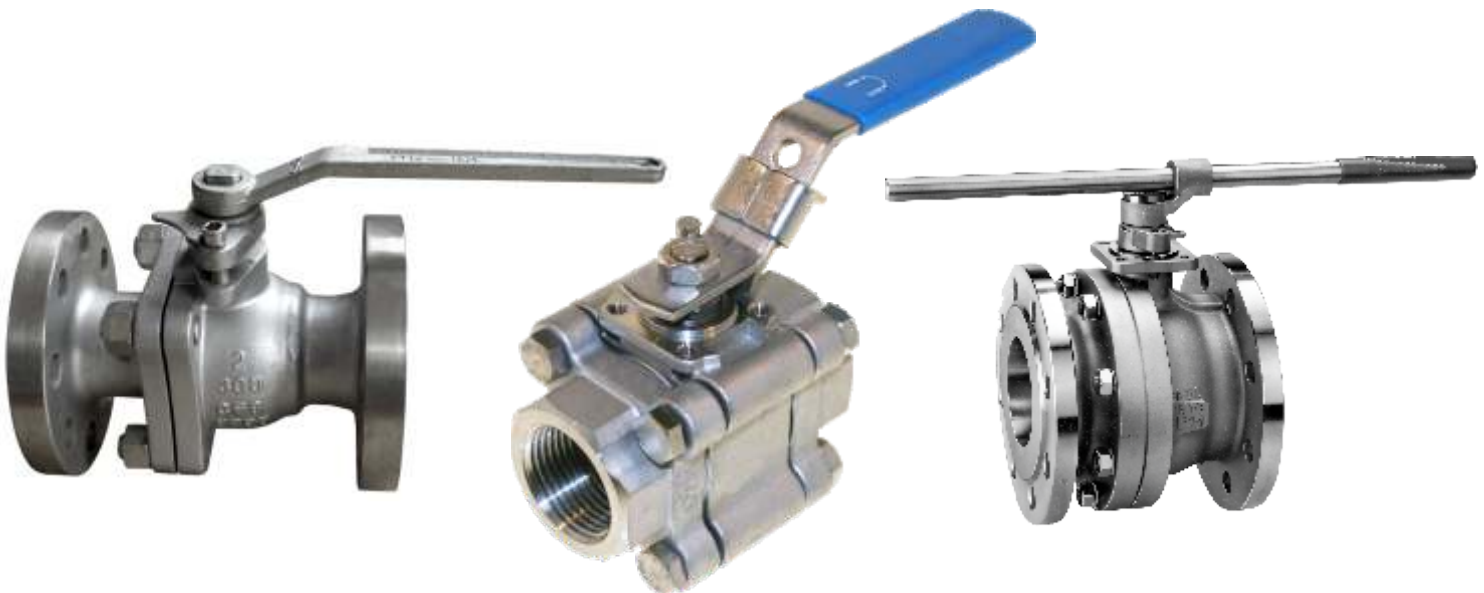


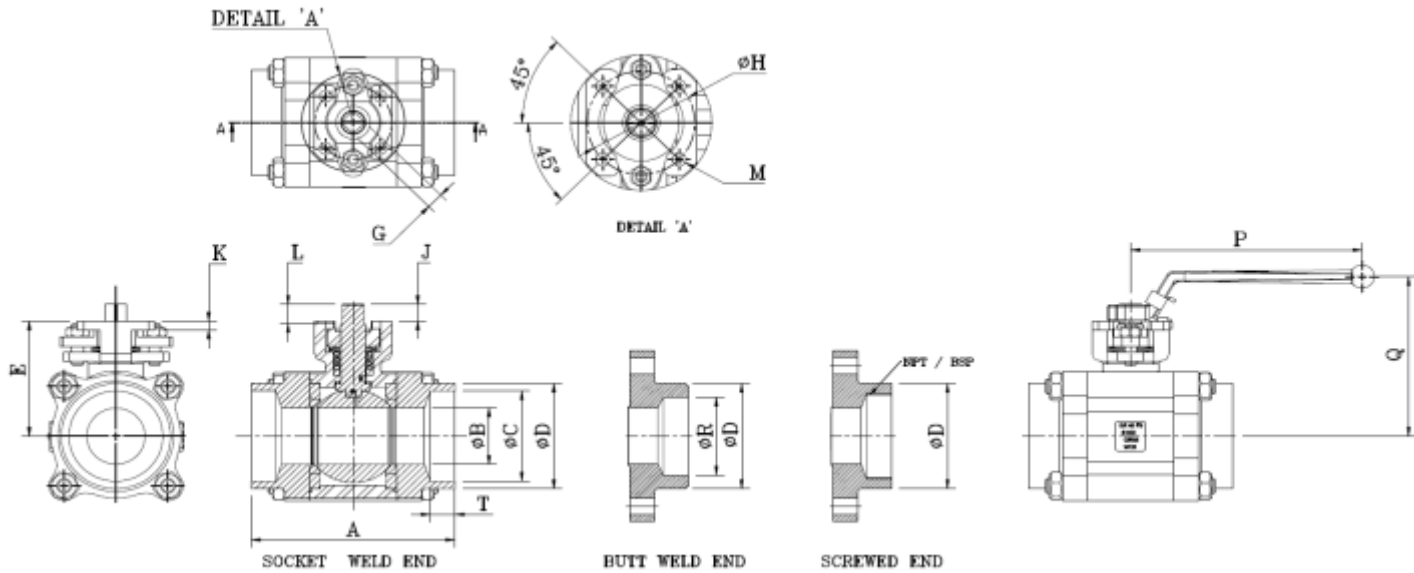


ALL DIMENSIONS ARE IN mm

**SERIES 65F FULL BORE CLASS 800**

VALVE SIZE	INCH	½"	¾"	1"	1¼"	1½"	2"
	DN	15	20	25	32	40	50
A		72	90	103	114	132	144
ØB		12.8	19.1	25.4	32	38.1	50.8
ØC		22	28	34	43	49	61
ØD		35	41	50	61.5	71	71
ØR		16	21	26.7	35.1	41	52.5
T		13	15	18	17	16	16
E		38.3	52.5	57.8	65.1	77.7	96
K		3.5	6.5	6.5	6.5	6.5	6
L		11	10.5	12	12	13	19
J		1.5	8.5	10	10	11	16
G		8	9	9	9	11	14
ØH		50	50	50	50	50	70
ISO 5211 MTG		F05	F05	F05	F05	F05	F07
M		M6*	M6*	M6*	M6*	Ø8	Ø9
NO. OF HOLES		4	4	4	4	4	4
P		150	150	150	150	150	200
Q		68	81	85	95	106	137
WEIGHT (Kg)		1	1.5	2	3	4.5	6.5
TORQUE (Nm)		0	0	0	0	0	0





ALL DIMENSIONS ARE IN mm

**SERIES 65R REDUCED BORE CLASS 800**

VALVE SIZE	INCH DN	½"	¾"	1"	1¼"	1½"	2"
A		67	72	90	103	114	132
ØB		10	12.8	19.1	25.4	31.8	38.1
ØC		22	28	34	43	49	61
ØD		30	35	41	50	61.5	71
ØR		16	21	26.7	35.1	41	52.5
T		13	15	18	17	16	16
E		38.3	38.3	52.5	57.8	65.1	77.7
K		3.5	3.5	6.5	6.5	6.5	6
L		9	11	10.5	12	12	13
J		1.5	1.5	8.5	10	10	11
G		8	8	9	9	9	11
ØH		50	50	50	50	50	50
ISO 5211 MTG		F05	F05	F05	F05	F05	F05
M		M6*	M6*	M6*	M6*	M6*	Ø8
NO. OF HOLES		4	4	4	4	4	4
P		150	150	150	150	150	150
Q		55	68	81	85	95	106
WEIGHT (Kg.)		0.5	1	1.5	2	3	4.5
TORQUE (Nm)		0	0	0	0	0	0



## PRODUCT SELECTION CODE

<b>VALVE SERIES</b>	<b>BORE</b>	<b>SIZE</b>	<b>BODY &amp; BODY ADAPTER</b>	<b>BALL &amp; STEM</b>	<b>SEAT</b>	<b>FIRE SAFETY</b>	<b>OPERATION</b>
50 60 70	F R	15 20 25 32 40 50 65 80 100 150 200	3 4 5 6 A C L O	3 4 5 6 A C L O	C G P T	F N	B G L A O

**VALVE SERIES**

50 - 2PC #150  
60 - 3PC #800  
70 - 2PC #300

**BORE**

F - FULL BORE  
R - REDUCED

**SIZE**

15 - DN15  
20 - DN20  
32 - DN32  
40 - DN40  
50 - DN50  
65 - DN65  
80 - DN80  
100 - DN100  
150 - DN150  
200 - DN200

**BODY & BODY ADAPTER**

3 - WCB  
4 - CF8 / SS304  
5 - CF8M / SS316  
6 - CF3M / SS316L  
A - CF3 / SS304L  
C - CA15  
L - LCB  
O - OTHER THAN ABOVE

**BALL & STEM**

3 - WCB / SS410  
4 - CF8 / SS304  
5 - CF8M / SS316  
6 - CF3M / SS316L  
A - CF3 / SS304L  
C - CA15  
L - LCB  
O - OTHER THAN ABOVE

**SEAT**

C - CARBON FILLED PTFE  
G - GLASS FILLED PTFE  
T - TFM 1600

**FIRE SAFETY**

F - FIRE SAFE  
N - NON FIRE SAFE

**OPERATION**

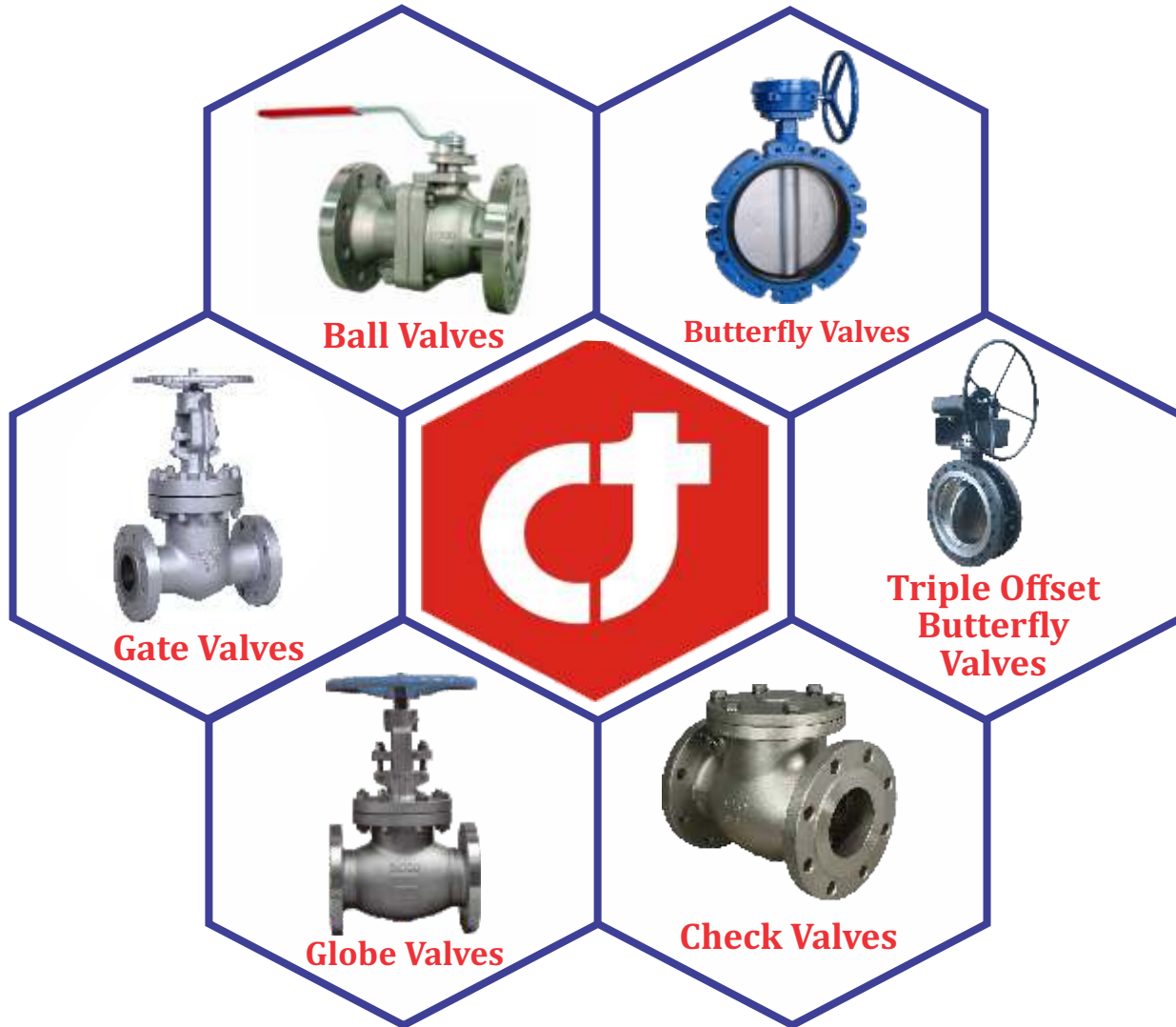
B - BARE STEM  
G - GEAR OPERATOR  
L - LEVER OPERATED  
A - ACTUATED  
O - OTHER THAN ABOVE

### EXAMPLE

50	F	50	3	5	T	F	L
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**2PC#150FULLBORE DN50 WCB/CF8M TRIM,TFM-1600, FIRESAFE,LEVEROPERATED**

## The Chemtrols Range of Valves



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