

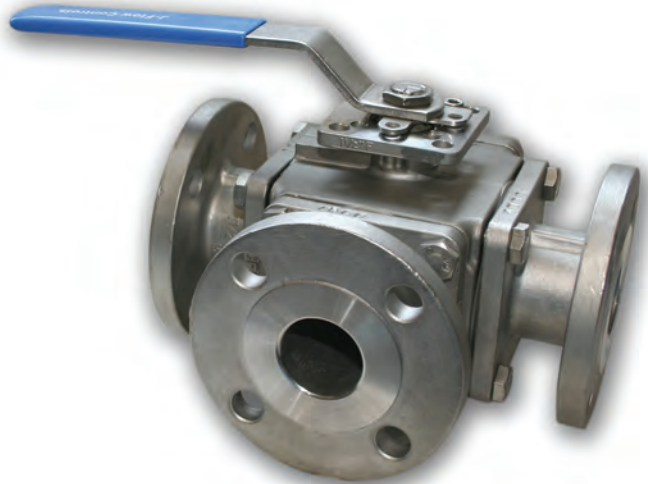
# DM3L/T2A33FTTF1 Series

## 1/2" - 10" Three Way Flanged Ball Valves



### Features & Benefits

- Available in stainless steel or carbon steel
- Body and end are investment cast
- Self-adjusting stem packing
- Available in T-port, L-port, X-port
- Available in 3 way, 4 way or 5 way
- 4 piece ball seats (PTFE + 15% C.F.)
- Blow-out proof stem design
- 100% air tested under water at 100 psi
- Working pressure 285 psi to 3000 psi
- Temperature range: -20°F to +1000°F
- ISO 5211 mounting pad/connection DIN 3337
- Locking device
- Silicone free



### Ordering Schematic

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Series	Material Body	Trim	Port	Packing	Seat	End Connections	
DM3L/T2A	2 Carbon Steel 3 Stainless Steel 4 Alloy 20 5 Monel 7 Hastalloy C 9 Duplex	3 Stainless Steel 4 Alloy 20 5 Monel 7 Hastalloy C 9 Duplex	F Full Port R Red Port	G Grafoil T Teflon Carbon	P PEEK CP Carbon PEEK T Teflon TM Super Teflon TC Carbon-Super Teflon M Metal Seated	F1 Flanged 150 F3 Flanged 300 F6 Flanged 600 F9 Flanged 900 S Threaded SW Socket Weld BW Butt Weld	

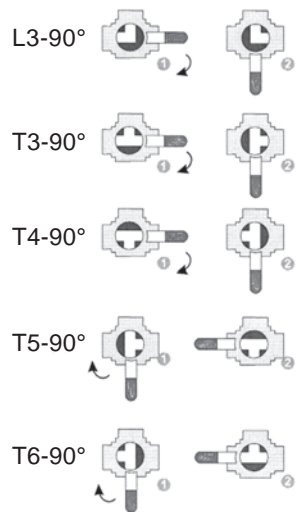


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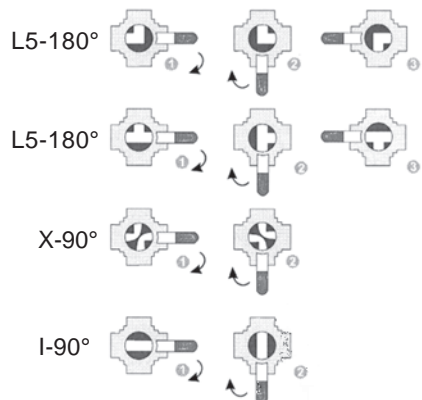
# Engineering

## Port Arrangement

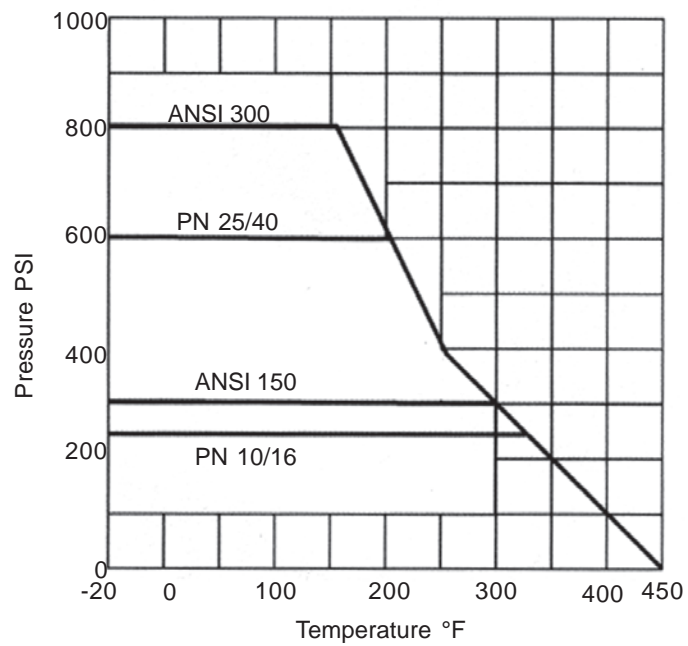
### 3 Way



### 4 Way

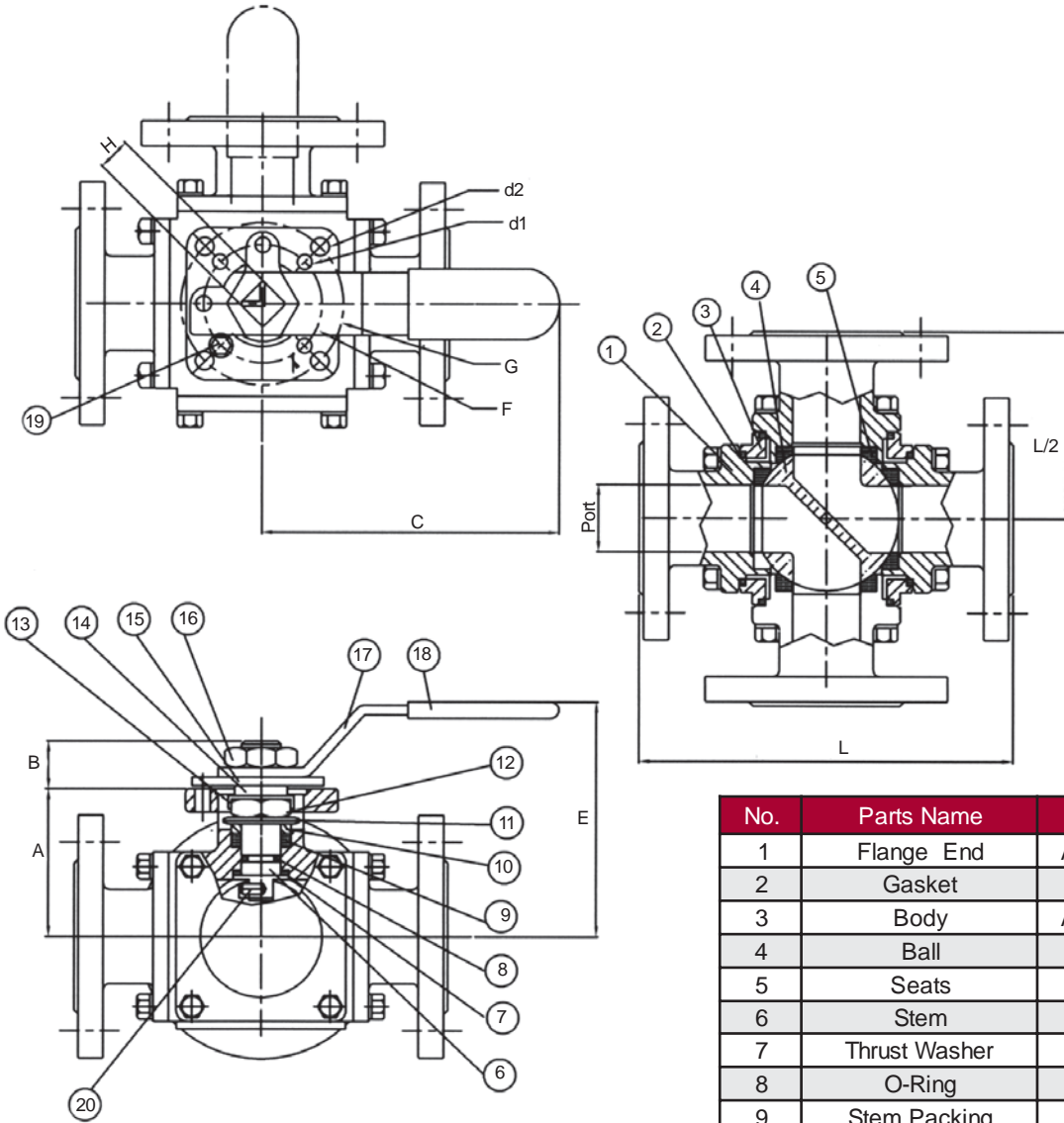


## Temperature Chart



# Engineering

## Dimensions & Material List (1/4" - 2")

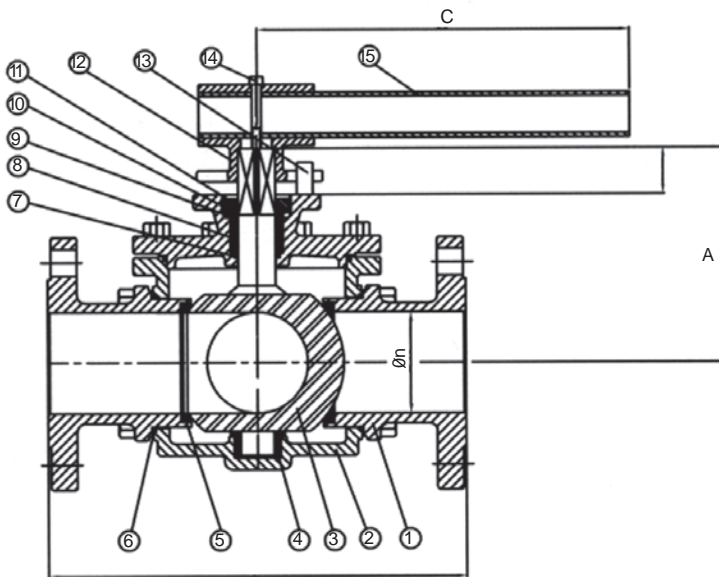
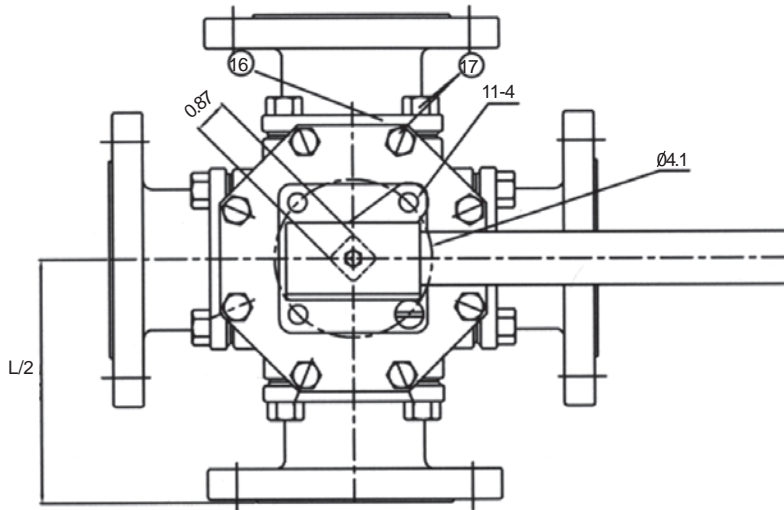


No.	Parts Name	Materials Option	
1	Flange End	A351 Gr. CF8M	A216 Gr. WCB
2	Gasket	PTFE	
3	Body	A351 Gr. CF8M	A216 Gr. WCB
4	Ball	SS 316	
5	Seats	PTFE	
6	Stem	SS 316	
7	Thrust Washer	RPTFE	
8	O-Ring	Viton	
9	Stem Packing	PTFE	
10	Gland	SS 304	
11	Disk Washer	SS 301	
12	Stem Nut	SS 304	
13	Nut Stop	SS 304	
14	Space Washer	SS 304	
15	Plater	SS 304	
16	Handle Nut	SS 304	
17	Handle	SS 304	
18	Cover	Plastisol	
19	Stop Pin	SS 304	
20	Insert Pin	SS 316	

Size	A	B	C	d1	d2	E	F	G	H	Port	L		L		L	
											150lbs	300lbs	PN16	PN40	J10k	J20k
1/2"	1.61	0.43	5.12	0.24	0.24	2.44	1.42	1.65	0.35	0.59	5.98	6.30	6.30	6.30	5.98	6.30
3/4"	1.93	0.55	6.50	0.24	0.28	3.23	1.65	1.97	0.43	0.79	6.57	6.97	6.97	6.97	6.57	6.97
1"	2.17	0.55	6.50	0.24	0.28	3.50	1.65	1.97	0.43	1.00	7.48	7.87	7.48	7.87	7.48	7.87
1-1/4"	2.48	0.71	8.07	0.28	0.36	3.86	1.97	2.76	0.55	1.25	8.19	8.58	8.19	8.58	8.19	8.58
1-1/2"	2.91	0.71	8.07	0.28	0.36	4.25	1.97	2.76	0.55	1.50	8.66	9.21	9.21	9.21	8.66	9.21
2"	3.66	0.91	12.80	0.36	0.45	5.51	2.76	4.02	0.67	2.0	9.96	10.75	10.75	10.75	10.00	10.75

# Engineering

## Dimensions & Material List (2-1/2" - 4")



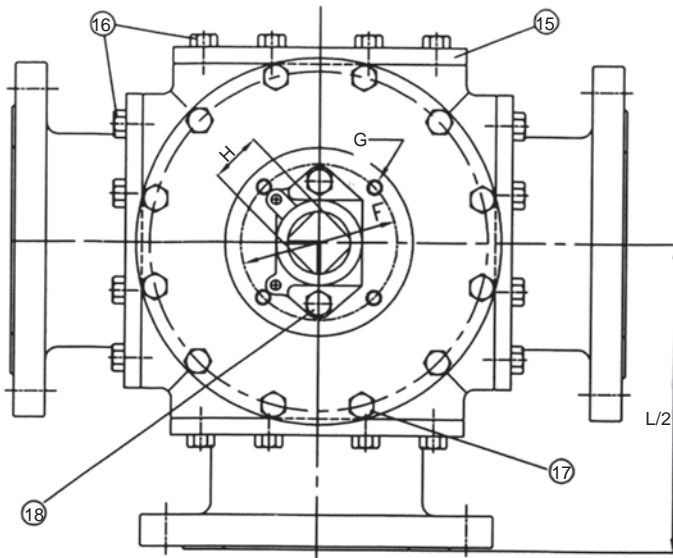
No.	Parts Name	Materials Option
1	Flange End	A351 Gr. CF8M
2	Body	A351 Gr. CF8M
3	Ball & Stem	SS 316
4	Housing	RPTFE + SS
5	Seats	PTFE
6	Gasket	PTFE
7	O-Ring	Viton
8	Stem Packing	PTFE
9	Gland Washer	SS 304
10	Disk Washer	SS 301
11	Gland	SS 304
12	Handle Head	A351 Gr. CF8
13	Stop Pin	SS 304
14	Bolt	SS 304
15	Lever	Carbon Steel
16	Blank End	A351 Gr. CF8M
17	Connection Bolts	SS 304

Size	A	C	D	L		L		L	
				150lbs	300lbs	PN16	PN40	J10k	J20k
2-1/2"	5.67	15.75	2.44	11.81	11.81	11.81	11.81	11.81	11.81
3"	6.38	19.68	2.99	12.00	13.00	12.00	13.00	12.00	13.00
4"	7.17	25.59	3.78	14.50	15.50	14.50	15.50	14.50	15.00

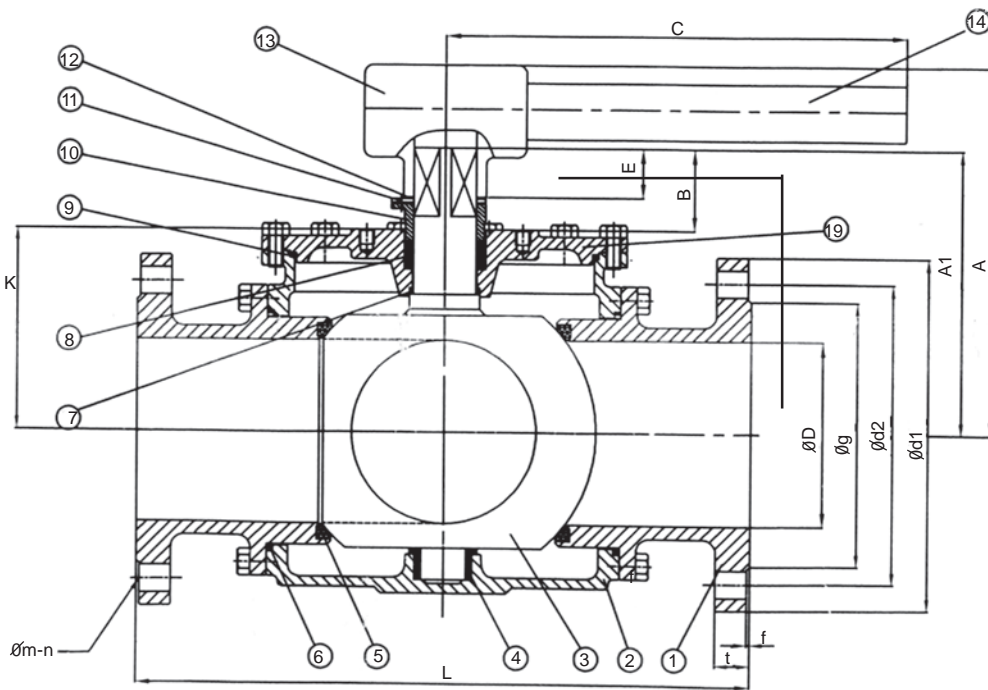
Size	Breakaway Torque (in-lb)	Cv L-Port	Cv T-Port 90°	Cv T-Port Straight Thru	Cv LL-Port	Wt Class 150 3-Way (Lb)	Wt Class 300 3-Way (Lb)	Wt. Extended Weld Ends (Lb)	Wt. SCR Ends (Lb)
2"	600	110	100	430	118	35	44	29	26
2-1/2"	785	160	150	670	138	58	69	46	-
3"	1300	260	260	1170	166	71	93	63	-
4"	2400	430	430	2070	230	133	155	110	-
6"	5000	980	980	5000	1089	318	372	316	-

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## Dimensions & Material List (5" - 10")



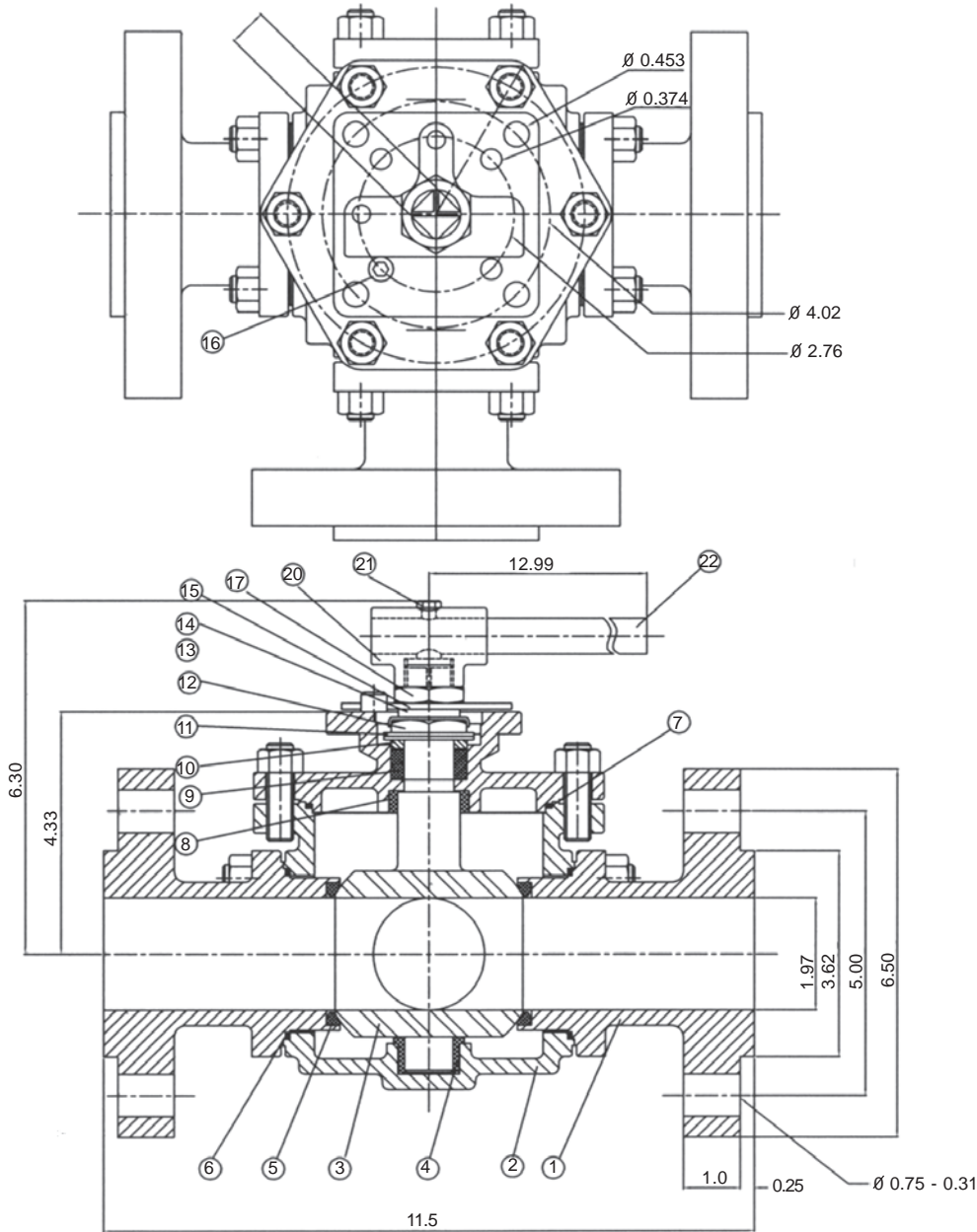
No.	Parts Name	Materials Option		Qty
1	Flange End	A351 Gr. CF8M	A216 Gr. WCB	3
2	Body	A351 Gr. CF8M	A216 Gr. WCB	1
3	Ball & Stem	SS 316	SS 304	1
4	Housing	PTFE + SS	PTFE + SS	1
5	Seats	PTFE	PTFE	4
6	Gasket	PTFE	PTFE	4
7	O-Ring	Viton	Viton	1
8	Stem Packing	PTFE	PTFE	1
9	Bonnet Gasket	PTFE	PTFE	1
10	Gland	A351 Gr. CF8	A216 Gr. WCB	1
11	Stop	SS 304	SS 304	1
12	Stop Ring	SS 304	SS 304	1
13	Handle Head	Ductile Cast	Ductile Iron	1
14	Lever	Carbon Steel	Carbon Steel	1
15	Blank End	A351 Gr. CF8	A216 Gr. WCB	1
16	Flange End Bolts	SS 304	Carbon Steel (B7)	32
17	Bonnet Bolts	SS 304	Carbon Steel (B7)	12
18	Gland Bolts	SS 304	Carbon Steel (B7)	2
19	Bonnet	A351 Gr. CF8	A216 Gr. WCB	1



Size	A	A1	B	C	D	E	F	G	H	K	L	d1	d2	g	m	t	f	n
5"	10.94	7.95	2.40	39.45	4.92	1.42	4.921	—	1.42	5.53	16.22	10.00	8.50	7.30	0.866	0.938	0.06	8
6"	11.73	8.74	2.40	47.25	5.90	1.42	4.921	—	1.42	6.28	16.85	11.00	9.50	8.50	0.866	1.00	0.06	8
8"	13.34	10.35	2.40	59.00	7.88	1.42	4.921	—	1.42	7.91	20.94	11.00	9.50	8.50	0.866	1.00	0.06	8
10"	17.44	13.50	3.58	78.80	9.84	2.05	5.51	—	1.81	9.92	26.00	16.00	14.25	12.75	1.00	1.19	0.06	12

# Engineering

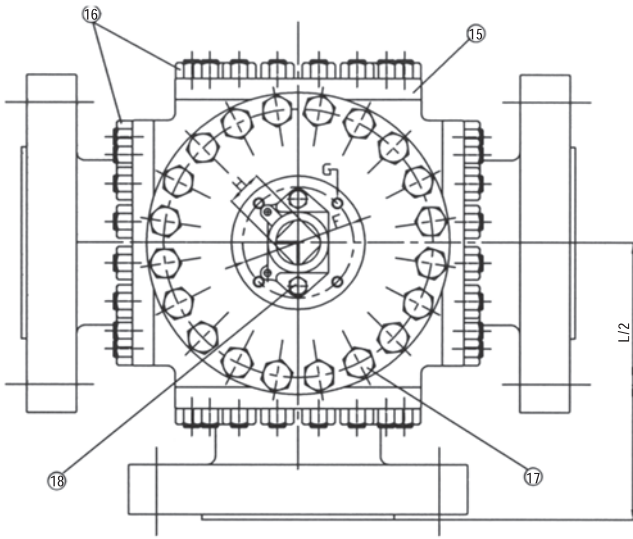
## Dimensions & Material List (2" ANSI 600)



Item	Part Name	Material	Option	Item	Part Name	Material	Option
1	Flange End	CF8M	WCB	14	Space Washer	SS304	SS304
2	Body	CF8M	WCB	15	Stop Plate	SS304	SS304
3	Trunnion Ball	SS316	SS316	16	Stop Pin	SS304	SS304
4	Housing	PTFE+SS316/PEEK	PTFE+316/PEEK	17	Stem Nut	SS304	SS304
5	Ball Seats	PEEK	PEEK	18	Handle	SS304	SS304
6	Body Gasket	Graphite	Graphite	19	Handle Cover	Plastisol	Plastisol
7	Bonnet Gasket	Graphite	Graphite	20	Lever Head	CF8	CF8
8	Bearing	PTFE+SS316	PTFE+SS316	21	Set Bolt	SS304	SS304
9	Stem Packing	Graphite	Graphite	22	Lever	Steel Pipe	Steel Pipe
10	Gland Washer	SS304	SS304	23	Bonnet	CF8M	WCB
11	Disk Washer	SS301	SS301	24	Blank End	CF8M	WCB
12	Gland Nut	SS304	SS304	25	Bolts & Nut	B8	B7
13	Nut Stop	SS304	SS304				

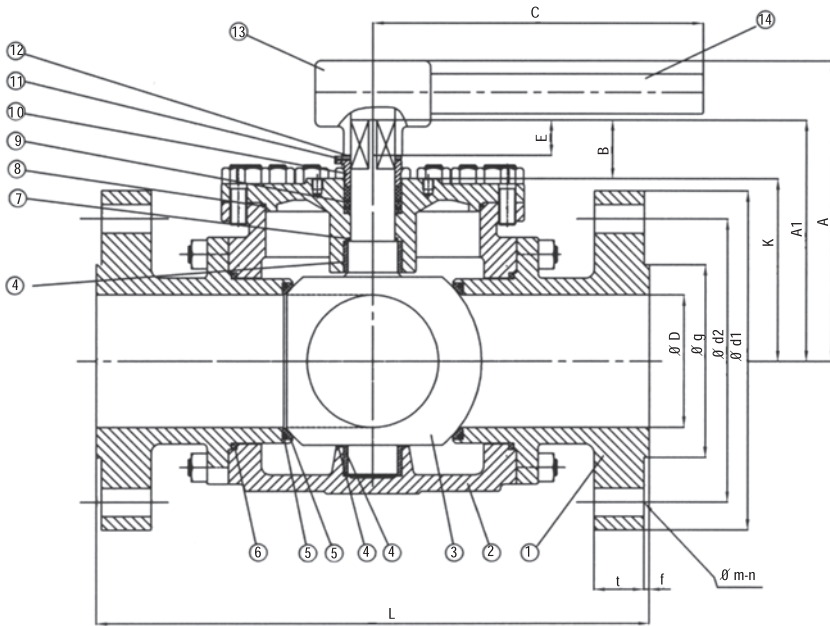
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## Dimensions & Material List (6" & 8" ANSI 900 Full Port)



Size	A	A1	B	C	D	E	F	G	H	K	L
6"	13.50	10.5	2.45	47.5	5.90	1.42	4.92	—	1.42	8.05	24.50
8"	15.50	12.5	2.45	59.0	7.88	1.42	5.51	—	1.42	10.05	30.00

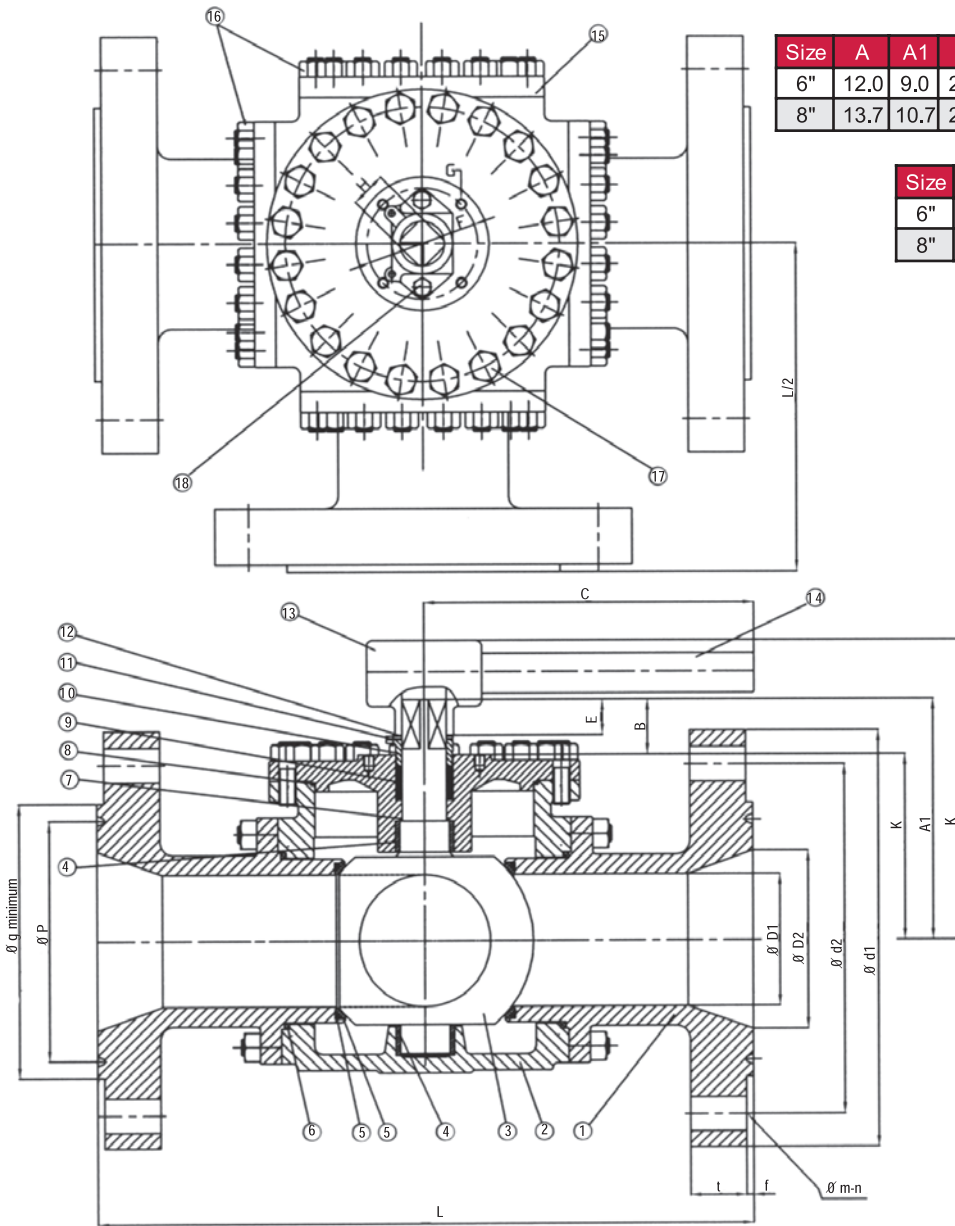
Size	d1	d2	g	m	t	f	n
6"	15.0	12.5	3.5	1.26	2.19	0.25	12
8"	18.5	15.5	10.6	1.54	2.50	0.25	12



Item	Part Name	Material	Option	Item	Part Name	Material	Option
1	Flange End	A351 Gr. CF8M	A216 Gr. WCB	10	Gland	A351 Gr. CF8M	A351 Gr. WCB
2	Body	A351 Gr. CF8M	A216 Gr. WCB	11	Stop	SS304	SS304
3	Ball & Stem	SS316	SS304	12	Stop Ring	SS304	SS304
4	Housing	PEEK	PEEK	13	Handle Head	Ductile Cast	Ductile Cast
5a	Seats	Delrin	Delrin	14	Lever	Carbon Steel	Carbon Steel
5b	Seat O-Ring	Viton	Viton	15	Blank End	A351 Gr. CF8M	A216 Gr. WCB
6	Gasket	PTFE	PTFE	16	End Bolts & Nuts	SS304	Carbon Steel
7	O-Ring	Viton	Viton	17	Bonnet Bolts & Nuts	SS304	Carbon Steel
8	Bonnet Gasket	PTFE	PTFE	18	Gland Bolts	SS304	Carbon Steel
9	Stem Packing	PTFE	PTFE	19	Bonnet	A351 Gr. CF8M	A216 Gr. WCB

# Engineering

## Dimensions & Material List (6" & 8" ANSI 900 Reduced Port)



Size	A	A1	B	C	D1	D2	E	F	G	H	K	L
6"	12.0	9.0	2.45	47.3	4.92	5.90	1.42	4.92	—	1.42	6.55	24.00
8"	13.7	10.7	2.45	59.0	5.9	7.88	1.42	4.92	—	1.42	8.25	29.00

Size	d1	d2	g	p	m	t	f	n
6"	15.0	12.5	9.50	8.312	1.26	2.19	0.312	12
8"	18.5	15.5	12.12	10.625	1.54	2.50	0.312	12

Item	Part Name	Material	Qty	Item	Part Name	Material	Qty
1	Flange End	LF2/A352 Gr. LCC	3	10	Gland	A351 Gr. CF8	1
2	Body	LF2/A352 Gr. LCC	1	11	Stop	SS304	1
3	Ball & Stem	SS316	1	12	Stop Ring	SS304	1
4	Housing	PEEK	2	13	Handle Head	Ductile Iron	1
5a	Seats	Delrin	4	14	Lever	Carbon Steel	1
5b	Seat O-Ring	Viton	4	15	Blank End	LF2/A352 Gr. LCC	1
6	Gasket	Graphite	4	16	End Bolts & Nuts	Carbon Steel	64
7	O-Ring	Viton	1	17	Bonnet Bolts & Nuts	Carbon Steel	20
8	Bonnet Gasket	Graphite	1	18	Gland Bolts	Carbon Steel	2
9	Stem Packing	Graphite	1	19	Bonnet	LF2/A352 Gr. LCC	1



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