



# SERIES 50

## MADE IN MARS

### ECONOMICAL THREE-PIECE BALL VALVES 1/4" TO 4" FULL PORT 800 / 1000 PSI

Take a good look, it may be your future

#### DESIGN ADVANTAGES

- For general Industrial and Chemical applications.
- Three-piece swing-out design allows in-line maintenance.
- Full port orifice minimizes pressure drop and prolongs life.
- Blow-out proof stem.
- Available in stainless steel and carbon steel.
- Investment cast body construction.

#### SPECIFICATIONS

**CONSTRUCTION:** Three-Piece Body, Full Bore

**SIZE:** 1/4" to 4" ( DN 8 to DN 100 )

**BODY:** CF8M, WCB / 1.4408, 1.0619

**BALL:** 316 S.S. / CF8M

**STEM:** 316 S.S.

**SEAT:** PTFE / RPTFE

**PRESSURE RATING:** 800/1000 PSI

#### VALVE FIG. NO. AND END CONNECTIONS

FIG. 50-10 Threaded End

FIG. 50-20 Socket Weld

FIG. 50-30 Butt Weld

FIG. 50-40 Extended Butt Weld

FIG. 50-50 Flanged End (PN 25/40 F1)

FIG. 50-5A Flanged End (PN16 F1)

FIG. 50-60 Flanged End(ANSI150#)

FIG. 50-70 Extended ISO(Butt Weld End)



FIG. 50-10

FIG. 50-20



FIG. 50-30



FIG. 50-40

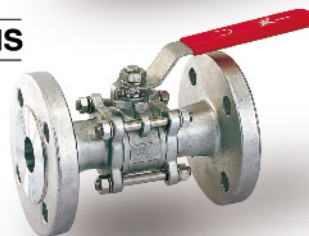
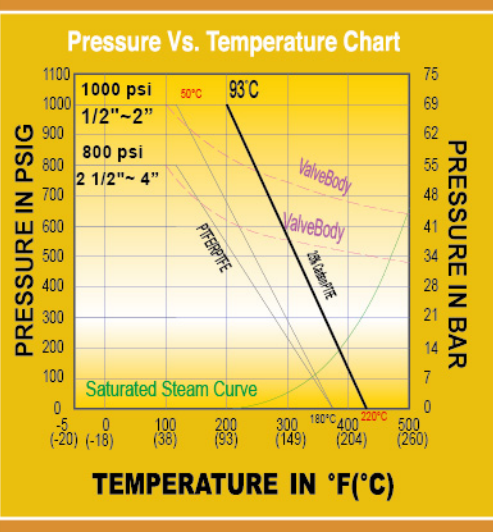


FIG. 50-50/50-60  
50-5A

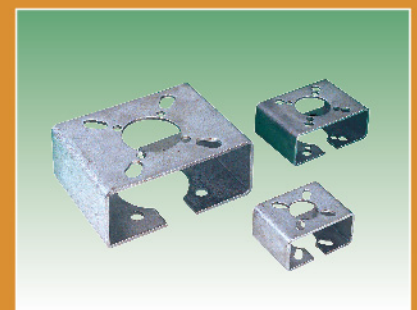


FIG. 50-70

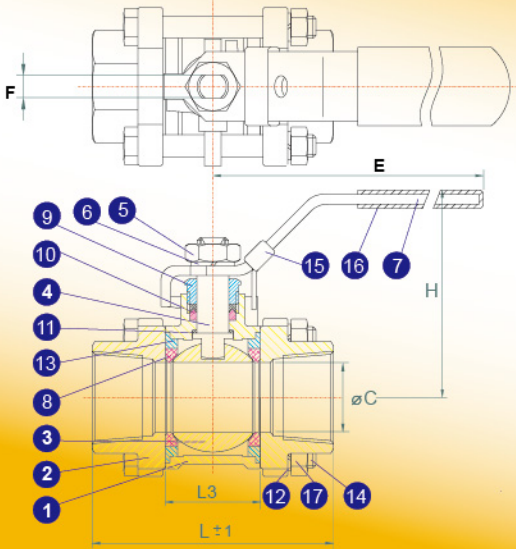


#### OPTION

Mounting Brackets and Couplers



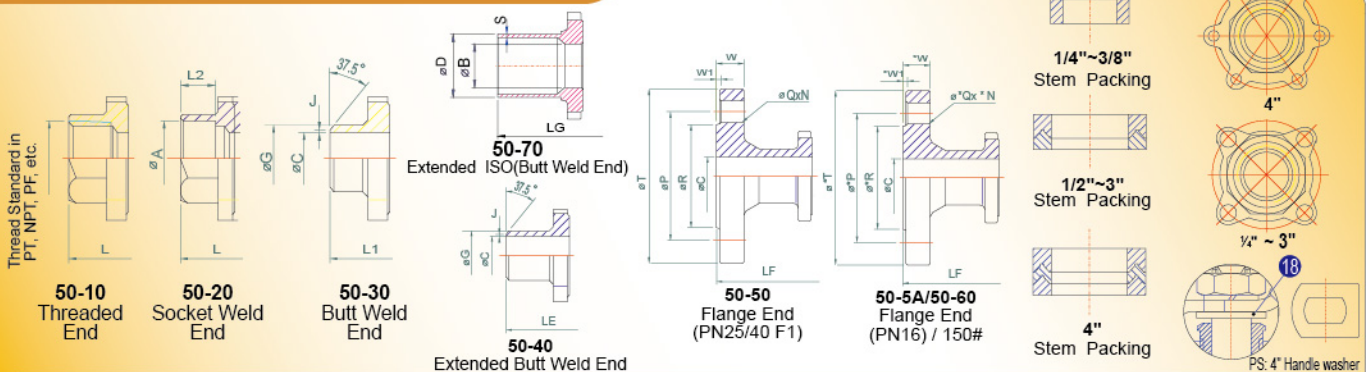
# MATERIALS LIST



NO.	PART NAME	MATERIAL	Q'TY	NO.	PART NAME	MATERIAL	Q'TY
1	Body	CF8M	WCB	1	10	Stem Packing	PTFE
2	End Cap	CF8M	WCB	2	11	Stem Seal	PTFE
3	Ball	SUS316/CF8M	1	12	Bolt Washer	SUS 304	
4	Stem	SUS316	1	13	Joint Gasket	PTFE	
5	Stem Nut	SUS 304	1	14	Bolt	SUS 304	
6	Stem Washer	SUS 304	1	15	‡ Locking Device	SUS 304	
7	Handle	SUS 304	1	16	Handle Sleeve	VINYL	
8	Seat	PTFE	2	17	Bolt Nut	SUS 304	
9	Gland Nut	SUS 304	1	18	Handle Washer	SUS 304	

§ ¼" & ⅜"-regular 1pc stem packing is used instead  
 ½" & 3"- 1 set of v-ring packing consists of 2pcs of v-ring  
 4"-1 set of v-ring packing consists of 3pcs of v-ring  
 † ¼"~2"-4pcs; 2½"~3"-8pcs; 4"-12pcs  
 \* ¼" ~ 1½"-4pcs of studs.  
 2"~3"-4pcs of studs. 4"-6pcs of studs.  
 ‡ Available as an option  
 @ For 4"-1pc.  
 Series 50, Ball valve uses WCB material,  
 For 2" ~ 4", bolt uses Ferritic Steels material, B7 (No.14 bolt B7 equipped with No.17 nut 2H)

## DIMENSIONS (mm)



## DIMENSIONS (mm)

SIZE	øA	øC	E	øE	F	øG	H	øH	J	L	L1	L	L1	L2	L3	LE	LF	N	øP	øQ	øR	øT	W	W1	øN	øP	øQ	øR	øT	W	W1	LF	øD	øB	S	LG	W(Kg)								
¼"	14.3	11.6	102		5.0	16.2	54		1.6	56.6	56.6	50	70	10	18.6	225																							0.35						
⅜"	17.6	12.7	102		5.0	17.5	54		1.6	56.6	56.6	60	70	10	18.6	225																							0.33						
½"	21.9	15.0	132		6.5	22.7	64		1.6	65.7	65.7	75	75	10	23.6	225	130	4	65	14	45	95	16	2															0.56						
⅝"	27.3	20.0	132		6.5	27.5	67		1.6	76.2	76.2	80	90	13	28	225	150	4	75	14	58	105	18	2															0.75						
1"	33.9	25.0	167		8.0	34	75		1.6	86.2	86.2	90	100	13	33.9	245	160	4	85	14	68	115	18	2															1.04						
1 1/8"	42.8	32.0	167		8.0	42.7	80		1.6	102.8	102.8	110	110	13	42.5	255	180	4	100	18	78	140	18	2															1.74						
1 1/2"	48.9	38.0	192		9.7	48.6	90		1.6	119.4	119.4	120	125	13	53.2	260	200	4	110	18	88	150	18	3															2.41						
2"	61.3	50.0	192		9.7	60.5	98		1.6	131.4	131.4	140	150	16	64.6	275	230	4	125	18	102	165	20	3															3.66						
2 1/2"	ANSI 74 PN16.8	65.0	252	282	12.0	76.3	137	147	2.0	164	164	185	190	16	87	334	290	8	145	18	122	185	22	3	4	145	18	122	185	18	3	290	4	139.7	19	104.8	177.8	17.6	1.6	245	76.1	65	3.0	254	7.10
3"	90.0	80.0	252	282	12.0	90.0	147	157	2.0	182.7	182.7	205	220	16	99	354	310	8	160	18	138	200	24	3	8	160	18	138	200	20	3	310	4	152.4	19	127	190.5	19.1	1.6	261.6	88.9	80	3.0	280.2	10.50
4"	115.5	100	282	327	15.0	116.0	175	181	3.5	235.6	235.6	240	270	20	127	365	350	8	190	22	162	235	24	3	8	180	18	158	220	20	3	350	8	190.5	19	157.2	228.6	23.9	1.6	348	114.3	100	3.0	317	20.76

\* L - Dimension for DIN 3202-M3 Length    \*L1 - Dimension for S13 Length    @ - Dimension for-PN40/PN16/ANSI 150#

## HOW TO ORDER ■ 50-10SP05

50-10	S	P	05
VALVE TYPE	BODY & END MATERIAL	SEAT	SIZE
<input checked="" type="checkbox"/> 50-10 Threaded End	<input checked="" type="checkbox"/> S - CF8M	<input checked="" type="checkbox"/> P - Virgin PTFE	<input checked="" type="checkbox"/> 01) 1/4"
<input type="checkbox"/> 50-20 Socket Weld End	<input type="checkbox"/> W - WCB	<input type="checkbox"/> R - R-PTFE	<input type="checkbox"/> 02) 3/8"
<input type="checkbox"/> 50-30 Butt Weld End	<input type="checkbox"/> L - CF3M	<input type="checkbox"/> S - 50/50 St. St. filled PTFE	<input type="checkbox"/> 03) 1/2"
<input type="checkbox"/> 50-40 Extended Butt Weld End	<input type="checkbox"/> F - 304 S. S.	<input type="checkbox"/> C - Carbon filled PTFE	<input type="checkbox"/> 04) 3/4"
<input type="checkbox"/> 50-50 Flanged End (PN 25/40 F1)		<input type="checkbox"/> M - MG1241	<input checked="" type="checkbox"/> 05) 1"
<input type="checkbox"/> 50-5A Flanged End (PN 16 F1)		<input type="checkbox"/> U - UHMWPE	<input type="checkbox"/> 06) 1 1/4"
<input type="checkbox"/> 50-60 Flanged End (ANSI 150#)			<input type="checkbox"/> 07) 1 1/2"
<input type="checkbox"/> 50-70 Extended ISO (Butt Weld End)			<input type="checkbox"/> 08) 2"
			<input type="checkbox"/> 09) 2 1/2"
			<input type="checkbox"/> 10) 3"
			<input type="checkbox"/> 11) 4"

## Breakaway Torque (RPTFE) & Cv Value

SIZE	Nm	In-Lbs	Cv U.S. GPM	Kv-M <sup>3</sup> /h
1/4"	7	58	7	6
3/8"	7	58	8	7
1/2"	7	58	15	13
3/4"	9	81	40	34
1"	16	139	70	60
1 1/4"	17	150	110	94
1 1/2"	29	254	250	213
2"	36	323	430	366
2 1/2"	59	518	700	595
3"	85	749	1100	935
4"	107	944	2000	1700

Break Away Torque  
 30% safety factor included  
 Standard Mars valves are assembled with silicon-free based in lubricant, torque for dry assembled valves please consult factory



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