



SERIES 96D

**Direct Mount
High Performance
ANSI #600
Flanged Ball Valves
1/4" to 4" Full Port**

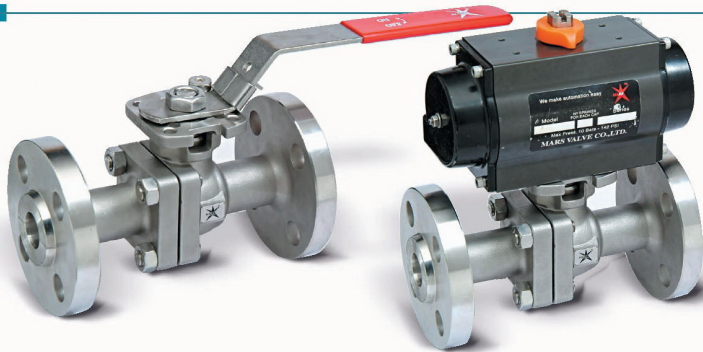
**Take a
Good Look
It May Be
Your Future**

www.marsvalve.com.tw

MARS



MARS HIGH PERFORMANCE FLANGED BALL VALVES



SERIES 96D ANSI CLASS 600

Direct Mount Design

Fire Safe Tested to API 607 4th Edition

Size: 1/2" - 2" Full Port

Body: CF8M / WCB,

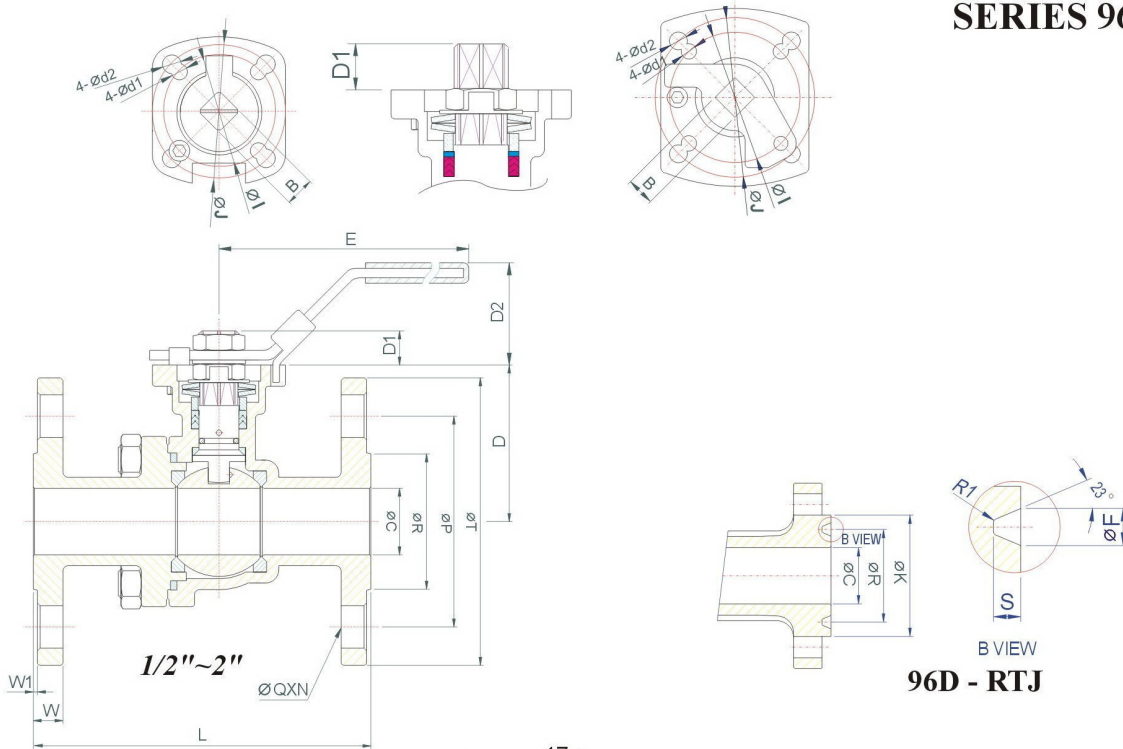
Ball/Stem: 316 S.S. / 17-4 PH

Seats: PTFE, RTFE, TFM1600

Face to Face: ANSI B16.10

■ NACE MR - 0175 On Request

SERIES 96D



Dimension B: $\frac{17}{19}$
Standard 17, Option 19

96D (ANSI CLASS 600) R-F

SIZE	ØC	B	E	D	D1	D2	ØI	ØJ	L	N	ØP	ØQ	ØR	ØT	W	W1	Ød1	Ød2	Wt(kg)	ISO5211
1/2"	15.0	11	213	48.7	9.9	48	42	50	165	4	66.5	16	35.1	95.3	20.6	6.4	6.5	7	2.87	F04/F05
3/4"	20.0	11	213	63.5	10.3	48	42	50	190.3	4	82.6	19	42.9	117.3	22.1	6.4	6.5	7	4.65	F04/F05
1"	25.0	14	263.5	68.1	12.9	49	50	70	215.9	4	88.9	19	50.8	124	23.9	6.4	7.5	9	6.11	F05/F07
*1 1/2"	38.0	$\frac{17}{19}$	370	89.1	19	44.3	70	102	241.3	4	114.3	22.2	73.2	155.4	28.7	6.4	10	12	12.23	F07/F10
*2"	50.0	$\frac{17}{19}$	370	110	19	44.3	70	102	292.1	8	127	19	91.9	165.1	31.8	6.4	10	12	17.65	F07/F10

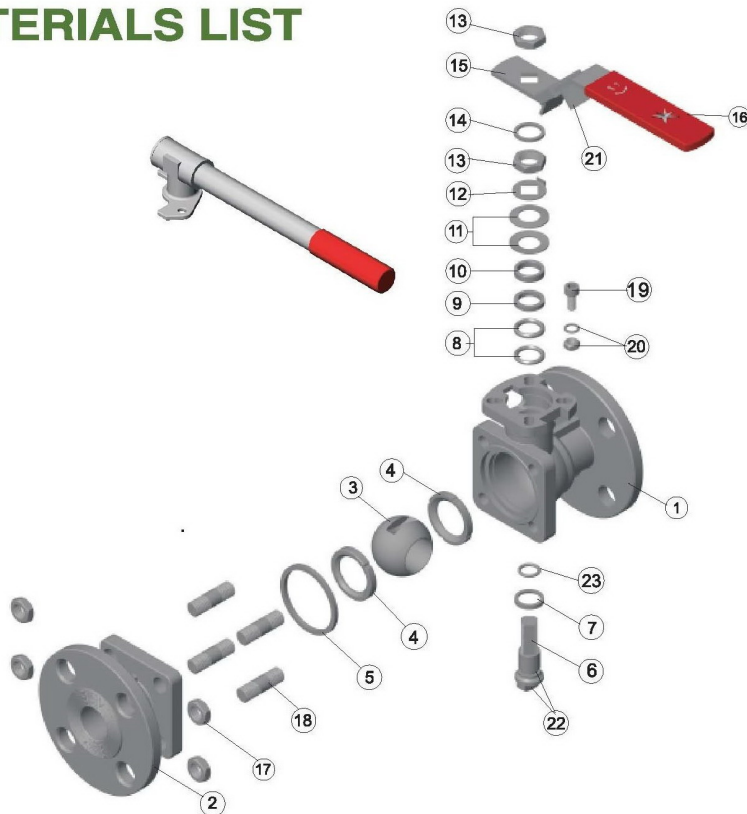
* Use T-handle

96D (ANSI CLASS 600) R-T-J

SIZE	ØC	B	E	D	D1	D2	S	ØF	ØI	ØJ	ØK	L	N	ØP	ØQ	ØR	R1	ØT	W	W1	Ød1	Ød2	ISO5211
1/2"	15.0	11	213	48.7	9.9	48	5.6	7.1	42	50	50.8	165	4	66.5	16	34.1	0.8	95.3	20.6	5.56	6.5	7	F04/F05
3/4"	20.0	11	213	63.5	10.3	48	6.4	8.7	42	50	63.5	190.3	4	82.6	19	42.9	0.8	117.3	22.1	6.35	6.5	7	F04/F05
1"	25.0	14	263.5	68.1	12.9	49	6.4	8.7	50	70	69.85	215.9	4	88.9	19	50.8	0.8	124	23.9	6.35	7.5	9	F05/F07
*1 1/2"	38.0	$\frac{17}{19}$	370	89.1	19	44.3	6.4	8.7	70	102	90.4	241.3	4	114.3	22.2	68.3	0.8	155.4	28.7	6.35	10	12	F07/F10
*2"	50.0	$\frac{17}{19}$	370	110	19	44.3	7.9	11.9	70	102	107.95	295.2	8	127	19	82.55	0.8	165.1	31.8	7.9	10	12	F07/F10

* Use T-handle

MATERIALS LIST



	PART NAME	MATERIAL	Q'TY
1	Body	CF8M / WCB	1
2	Cap	CF8M / WCB	1
3	Ball	SUS316	1
4	Seat	RPTFE	2
5	Joint Gasket	PTFE	1
6	Stem	SUS316	1
7	Stem Seal	RPTFE	1
8	Stem Packing	PTFE	§
9	Stem Packing	25% Glass Fiber filled +PTFE	1
10	Gland	SUS 304	1
11	Belleville Washer	SUS 301	2
12	Lock Saddle	SUS 304	1
13	Stem Nut	SUS 304	2
14	Stem Washer	SUS 304	1
15	Handle	SUS 304	1
16	Handle Sleeve	VINYL	1
17	Bolt Nut	SUS 304	*
18	Bolt	SUS 304	*
19	Stop Pin	SUS 304	1
20	Pin Nut & Washer	SUS 304	1
21	Locking Device	SUS 304	1
22	Anti-static Device	SUS 316	2
23	O-RING	VITON	1

Mars Unique SealMax® Triple - Sealing Stem Packing System Live Loaded - Maintenance Free - Extra Long Cycle Life - TA - Luft Approved

1. Pyramidal Stem with Stem Seal

First stage of defense against leakage. The 45° slope of the stem accompany the stem seal effectively blocks all leak path during rotation.

2. O-Ring Stem Packing

Second stage of defense against leakage. Enhances stem seal and maintains stem alignment, provides extra longer service life

3. V-Ring Stem Packing

Third stage of defense against leakage. Multiple layers of V-Ring Chevron Packing expands side way as it is being compressed, blocking all air pockets to prevent leak path.

4. Lock Saddle

Stabilizes the entire stem nut to keep it from Loosening during operation.

5. Stem Nut

Compress the entire stem system to enable blocking of leakage.

6. Belleville Washers

Automatically compress the seals to adjust for wear, pressure, and temperature fluctuations.

7. Gland

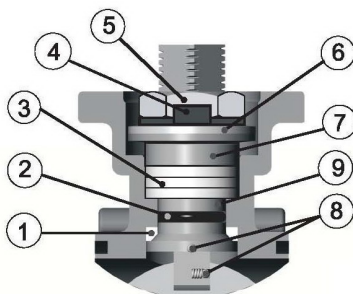
Made of stainless steel, equally distributes the compressive force on the packing and seal.

8. Anti-Static Device

Stem-to-Ball and Stem-to-Body as standard.

9. Super Smooth Stem Finish

Reduces seal friction and operating torque, prolongs service life.



SERIES 96D V-CONTROL BALL VALVES

Mars V-Control Ball valves match the control performance of globe valve, excellent for modulating service, but Mars V-Control ball valves are more compact, lighter weight, and much less expensive than globe valves.



30°V, 60°V, and 90°V are standard, others on request

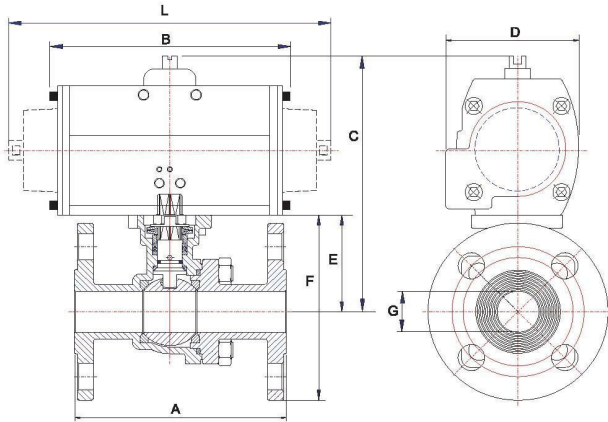
SERIES 96D With Mars "TSM" unit adds extra safety and Long Service Life

- Secondary Seal for possible fugitive emission to meet TA-Luft requirement for a safe and clean environment
- Function as Stem Extension for insulation
- ISO 5211 mounting pad and square shaft for direct actuator mounting with no brackets and adapters, ease of automation.
- Cast bosses for monitoring device



MARS VALVE OFFERS SINGLE-RELIABLE-SOURCE FOR A COMPLETE LINE OF BALL VALVES, ACTUATORS, AND ACCESSORIES TO MEET YOUR VALVE AUTOMATION REQUIREMENTS.

Series 96D Ball Valves with AirMars Pneumatic Actuator



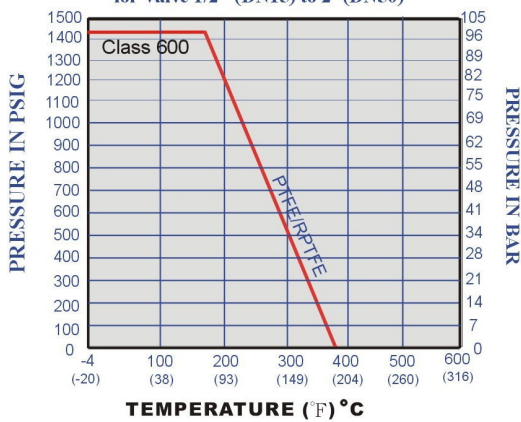
96D (ANSI CLASS 600) Double-Acting (80 PSI)

Valve Size	A	B	G	D	E	C	Actuator	(Kg)
1/2"	165	144.3	DN15	81.4	48.7	147.7	A-250	4.26
3/4"	190.3	144.3	DN20	81.4	63.5	162.5	A-250	6.04
1"	215.9	149.2	DN25	95	68.1	186.1	A-450	7.94
1 1/2"	241.3	183	DN40	119	89.1	230.1	A-1000	15.13
2"	292.1	183	DN50	119	110	251	A-1000	20.55

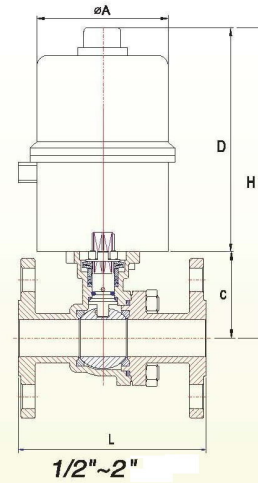
96D (ANSI CLASS 600) Spring-Return (80 PSI)

Valve Size	A	L	G	D	E	C	Actuator	(Kg)	Remark
1/2"	165	205.6	DN15	95	48.7	166.7	A-450SR4	5.56	+
3/4"	190.3	205.6	DN20	95	63.5	181.5	A-450SR4	7.34	+
1"	215.9	250.0	DN25	119	68.1	209.1	A-1000SR4	10.94	+
1 1/2"	241.3	355	DN40	140.5	89.1	250.1	A-2250SR4	21.43	+
2"	292.1	355	DN50	140.5	110	271	A-2250SR4	26.85	+

Pressure Vs. Temperature Chart for Valve 1/2" (DN15) to 2" (DN50)



Series 96D Ball Valves with PowerMars Electric Actuator



96D (ANSI CLASS 600)

VALVE SIZE	Electric Actuator	Flange Type	◇	φA	C	D	H	L	◇ STEM	ISO 5211
1/2"	OM-1	F03/F05	14	114	48.7	155	203.7	165	11	F04/F05
3/4"	OM-1	F03/F05	14	114	63.5	155	218.5	190.3	11	F04/F05
1"	OM-1	F03/F05	14	114	68.1	155	223.1	215.9	14	F05/F07
1 1/2"	OM-A	F07	17	114	89.1	203	292.1	241.3	17	F07/F10
2"	OM-2	F07	22	180	110	255	365	292.1	17	F07/F10