



SERIES M202/M203

Three-Way Ball Valve



INTRODUCTION

The Series M202 is a direct-mount, three-way ball valve engineered for broad industrial and chemical use, providing a simple and efficient solution for flow diversion. With versatility and performance at its core, it features a patented semi-trunnion ball design for enhanced stability during operation. Available in both reduced and full bore configurations with L or T port options, it is well-suited for a wide range of operational needs.

The Series M203, designed as a reduced-bore version of the M202, maintains the durable construction and innovative design of the M202 while offering enhanced precision for flow control. Both models ensure dependable performance and adaptability across a wide range of industrial applications.

TECHNICAL SUMMARY

SIZE RANGE	Full Port	1/4" to 2" (DN8 to 50)
	Reduced Port	1/2" to 2" (DN15 to 50)
PRESSURE RATING	Full Port	1000 WOG : 1/4" to 2" (DN8 to 50)
	Reduced Port	1000 WOG : 1/2" to 2" (DN15 to 50)
BODY & END CAP MATERIAL (ASTM)	CF8M, CF3M, CF8, CF3, WCB	
BODY & END CAP MATERIAL (EN)	1.4408, 1.4409, 1.4308, 1.4309, 1.0619	
SEAT MATERIAL	PTFE, RTFE, CTFE, TFM1600, MG1241, STFE	
HANDLE TYPE	Flat	
V-PORT OPTION	N/A	

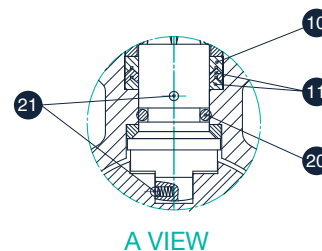
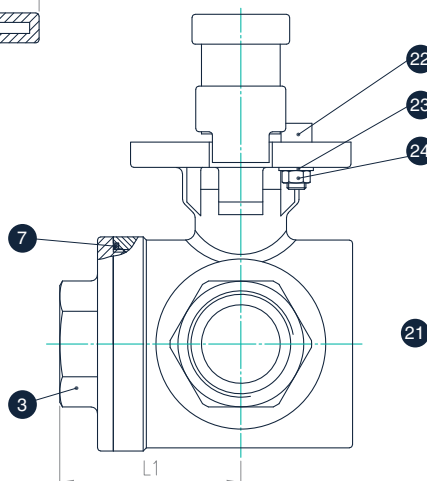
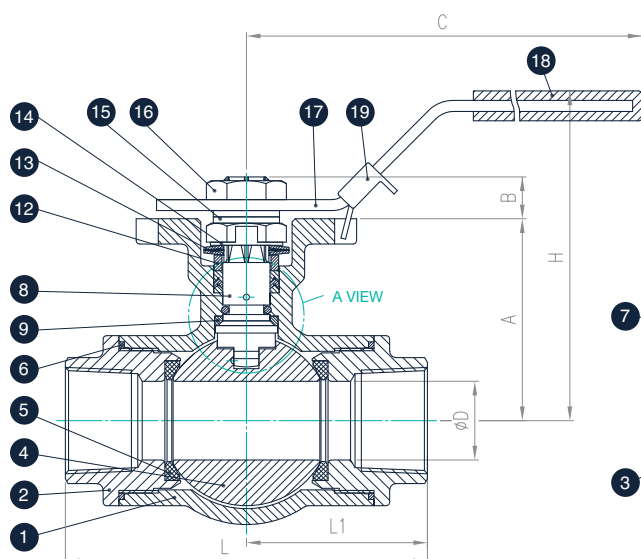
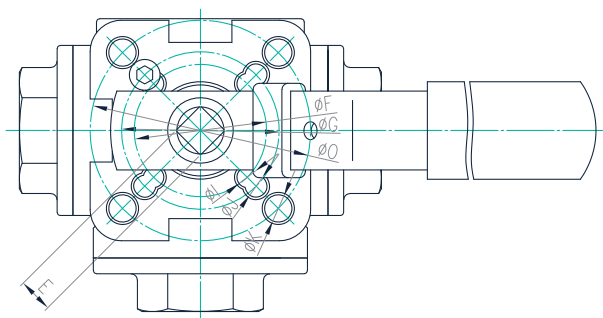
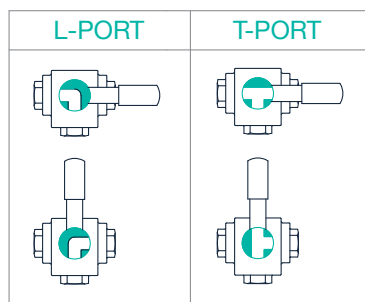
STANDARD OF COMPLIANCE

MATERIAL CERTIFICATION	EN 10204-3.1
THREADED END CONNECTIONS	NPT ASME B1.20.1
	BSPP ISO 228-1
	BSPT ISO 7-1
	DIN 2999
PRESSURE TESTING	API 598
MOUNTING PAD	ISO 5211
MARKING	ISO 5209
CE APPROVAL	2014 / 68 / EU Module H
QUALITY ASSURANCE	ISO 9001:2015
EUROPEAN DIRECTIVES APPLIED	ATEX, 2014/34/EU
SAFETY INTEGRITY LEVEL, SIL	IEC 61508

CONSTRUCTION-BILL OF MATERIAL

SERIES M202/M203

1/4"~ 2"



NO.	Parts	Material	Qty
1	Body	CF8M	1
2	End cap - A	CF8M	2
3	End cap - B	CF8M	1
4	Ball	SS316	1
5	Seat	RTFE	4
6	Joint Gasket - A	PTFE	2
7	Joint Gasket - B	PTFE	1
8	Stem	SS316	1
9	Thrust Washer	RTFE	1
10	Gland Packing	25% GLASS FIBER FILED+PTFE	1
11	Gland Packing	PTFE	@
12	Gland Bush	SS304	1
13	Belleville Washer	SS301	2
14	Stop Washer	SS304	1
15	Stem Washer	SS304	1
16	Stem Nut	SS304	2
17	Handle	SS304	1
18	Handle Cover	VINYL	1
19	Locking Device	SS304	1
20	O-Ring	VITON	1
21	Anti-static Device	SS316	2
22	Stop Pin	SS304	1
23	Washer	SS304	1
24	Pin Nut	SS304	1

DIMENSIONS(mm)

SIZE		A	B	C	øD	E	øF	øG	øO	H	øI	øJ	øK	L		L1		ISO 5211
F	R													F	R	F	R	
1/4"	-	38.1	9	140	11	9	36	42	-	75	6	6	-	72	-	36	-	FOR F03/F04
3/8"	1/2"	38.1	9	140	12.5	9	36	42	-	75	6	6	-	72	72	36	36	FOR F03/F04
1/2"	3/4"	43.9	9	151	15	9	36	42	50	88	6.5	7	-	83	83	41.5	41.5	FOR F03/F04/F05
3/4"	1"	54.2	10.5	166	20	11	42	50	-	93	6	7	-	99	110	55	55	FOR F04/F05
1"	1-1/4"	64.1	10.5	183	25	11	42	50	70	109	6.5	7	9	112	125	62.5	62.5	FOR F04/F05/F07
1-1/4"	1-1/2"	78.5	13.5	216	32	14	50	70	-	128	7.5	9	-	125	125	62.5	62.5	FOR F05/F07
1-1/2"	2"	94.9	18.5	163	38	17 / 19	70	102	-	154	10	12	-	149	149	74.5	74.5	FOR F07/F10
2"	-	101.6	19.5	313	50	17 / 19	70	102	-	161	10	12	-	174	-	-	-	FOR F07/F10

TECHNICAL DATA | Breakaway torque / Cv and Kv values / Weight

M202								
Size	Torque		Cv values		Kv values (M ³ /h)		Weight (Kg)(259)	
	N.m	lbs.in	L-Port	T-Port	L-Port	T-Port	T-PORT	T-PORT
1/4"	9	80	4	4	3.4	3.4	0.8	0.8
3/8"	9	80	5	4	4.3	3.4	0.7	0.7
1/2"	12	106	6	5	5.1	4.3	1.0	1.0
3/4"	17	151	16	13	13.6	11.1	1.7	1.7
1"	36	319	31	22	26.4	18.7	2.6	2.6
1-1/4"	42	372	32	25	27.2	21.3	3.8	3.8
1-1/2"	51	452	75	55	63.8	46.8	6.5	6.5
2"	94	833	140	100	119	85	8.9	8.9

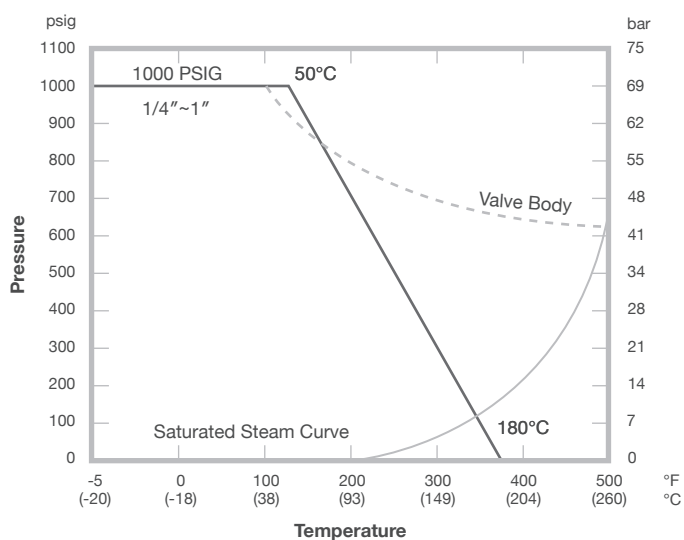
With Grease

M203								
Size	Torque		Cv values		Kv values (M ³ /h)		Weight (Kg)(259)	
	N.m	lbs.in	L-Port	T-Port	L-Port	T-Port	T-PORT	T-PORT
1/2"	9	80	5	4	4.3	3.4	0.7	0.7
3/4"	12	106	6	5	5.1	4.3	1.0	1.0
1"	17	151	16	13	13.6	11.1	1.7	1.7
1-1/4"	36	319	31	22	26.4	18.7	2.7	2.7
1-1/2"	42	372	32	25	27.2	21.3	3.7	3.7
2"	51	452	75	55	63.8	46.8	6.3	6.3

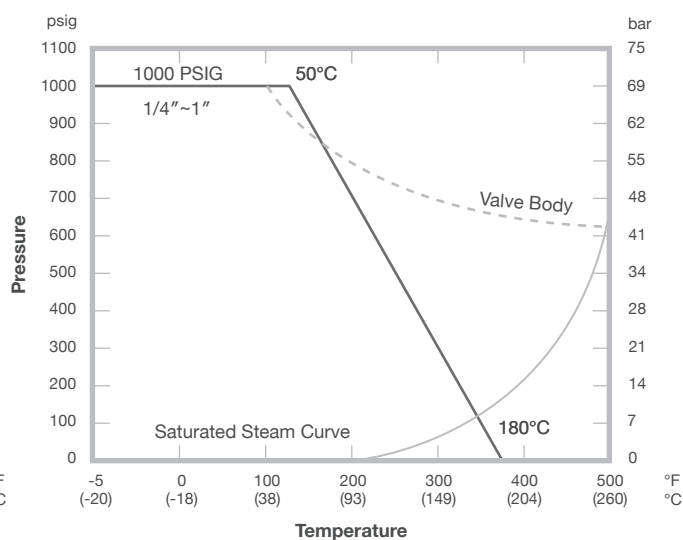
With Grease

TECHNICAL DATA | Pressure - Temperature Diagram | 1/4" ~ 2"

M202 (FULL PORT)
Seat material : PTFE / RTFE



M203 (REDUCED PORT)
Seat material : PTFE / RTFE



OPTIONAL ACCESSORIES

| Handle Options



Spring Return Sliding Lock



T-Bar Handle

| Accessories



TSM



TSM with Handle



Actuator



Transworld Steel Enterprise Co., Ltd.

Tel +886 4 2271 6107 **Fax** +886 4 2271 6127

Address No. 34, Gongye 14th Rd., Dali Dist.,
Taichung City, 412038, Taiwan (R.O.C.)



Established in 1992
TAWD has dedicated over 30 years to
manufacturing premium ball valves

INNOVATION

INTEGRITY

STRICT SELECTION