MXT-7760L000
MXT-7760T000

3-Way Reduced Port Threaded End Ball Valve L and T-bore

(Direct Mount Standard Type)

DESIGN FEATURES

- Built-in ISO 5211 Direct Mounting Pad Easy Automation
- Anti-static Devices for Ball-Stem-Body
- Blow-out Proof Stem
- Positive Position location at 90° Increments
- Locking in Every 90° Increments
- TA-Luft Design Approved
- NACE standard MR0175 & MR0103 (Optional)
- Casting Approved by TÜV AD 2000-Merkblatt W0
- Options : 1.Actuaor 2.Limit 3.Positioner

APPLICABLE STANDARDS

- Design Standard : MSS SP-110
- Wall Thickness : EN12516-3
- Pipe Thread : ASME B1.20.1,BS21, EN 10226
  DIN 2999/259, ISO 228/1
  JIS B0203 ISO 7/1
- Inspection & Testing : MSS SP-110

WEIGHT

DN	NPS	MXT-7760L000		MXT-7760T000	
		(kg)	(lb)	(kg)	(lb)
8	1/4	0.86	1.89	0.84	1.85
10	3/8	0.83	1.83	0.82	1.81
15	1/2	0.77	1.69	0.76	1.67
20	3/4	1.05	2.31	1.03	2.27
25	1	1.88	4.14	1.8	3.96
32	1 1/4	3.07	6.76	3.01	6.64
40	1 1/2	4.26	9.37	4.12	9.06
50	2	7.10	15.65	7.02	15.44

TORQUE VALUES

Close to Open Torque at Various Differential Pressure (△P), Standard Seats (TFM1600 & PTFE)

unit : in·lb / N·m

Size/△P		75 psig		150 psig		300 psig		700 psig		1000 psig	
		5 bar		10 bar		20 bar		50bar		63bar	
NPS	DN	N·m	In·lb	N·m	In·lb	N·m	In·lb	N·m	In·lb	N·m	In·lb
1/4	8	9	80	9	80	9	80	9	80	9	80
3/8	10	9	80	9	80	9	80	9	80	9	80
1/2	15	9	80	9	80	9	80	9	80	9	80
3/4	20	9	80	9	80	10	88	10	88	10	88
1	25	14	124	14	124	15	133	15	133	15	133
1 1/4	32	18	159	18	159	18	159	20	177	22	195
1 1/2	40	25	221	26	230	26	230	28	248	30	265
2	50	35	310	38	336	42	372	46	407	50	442

Remark :

1.The torque figures at 5 bar pressure are maximum values to be tested after the valves are placed for 24 hours.

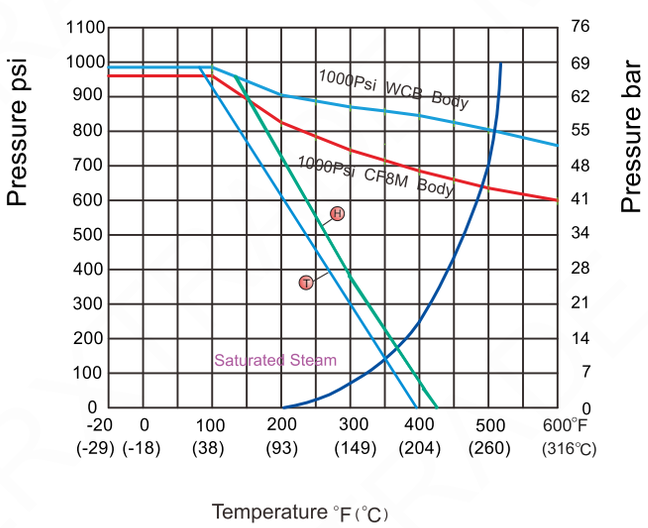
2.For actuator sizing, a safety factor of minimum 30% is recommended.

TECHNICAL INFORMATION

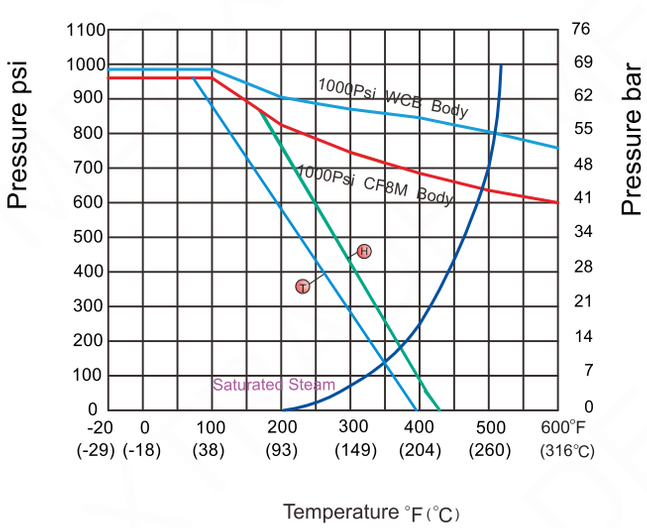
PRESSURE - TEMPERATURE DATA

The pressure-temperature data of ball valves are determined not only by valve shell materials but also by sealing materials used for ball seats, gland packings and flange gaskets.

Reduced Bore: NPS 1/4 to NPS 1 1/4
DN8 to DN32

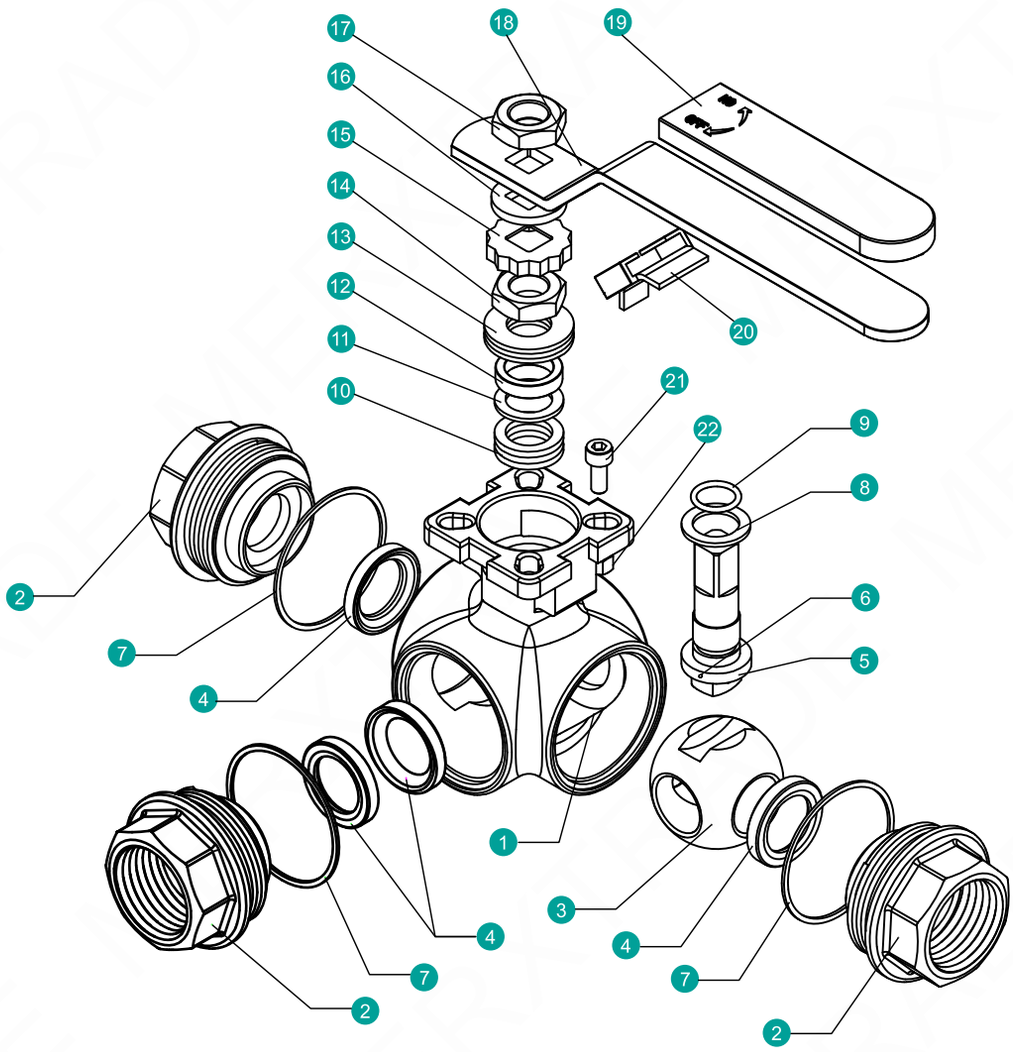


Reduced Bore: NPS1 1/2 to NPS 2
DN40 to DN50



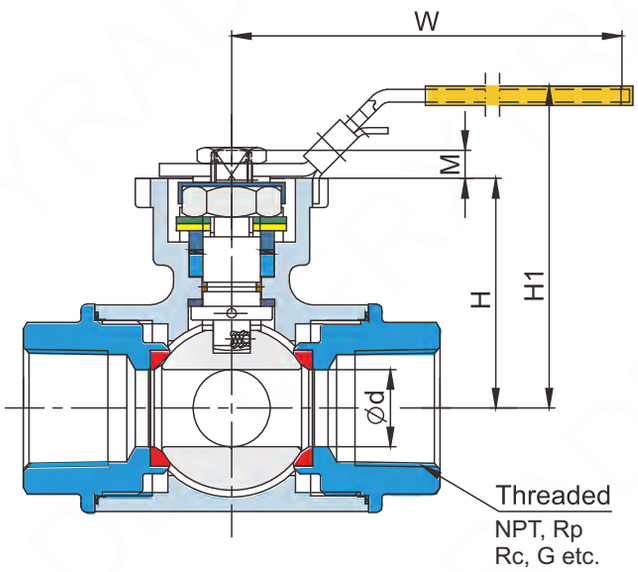
Seat Materials : Ⓣ PTFE Ⓗ TFM1600

Body Ratings: Shown above are for ASTM A351 Gr.CF8M and A216 Gr.WCB
For ratings of other valve shell materials, please refer to the last edition of ASME B16.34.

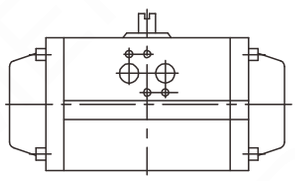


MATERIAL OF CONSTRUCTION

NO.	PART NAME	MATERIALS		
1	Body	CF8M(1.4408)	CF8(1.4308)	WCB(1.0619)
2	End Cap (Thread)	CF8M(1.4408)	CF8(1.4308)	WCB(1.0619)
3	Ball	316	304	
4	Ball Seat	TFM1600 /PTFE		
5	Washer	316	304	
6	Stem (Anti-Static)	316	304	
7	Body Gasket	PTFE		
8	Thrust washer	PTFE/ TFM1600		
9	O-Ring	FKM		
10	Packing	PTFE		
11	Bushing	50%SS+50%PTFE		
12	Gland	316		
13	Belleville Washer	301		
14	Stem Nut	A194-8		
15	Stop-lock-Cap	304		
16	Handle Gland	304		
17	Handle Nut	A194-8		
18	Handle	304		
19	Handle Sleeve	VINYL PLASTIC		
20	Lock Device	304		
21	Stop Bolt	A2-70		
22	Stop Nut	A2-70		

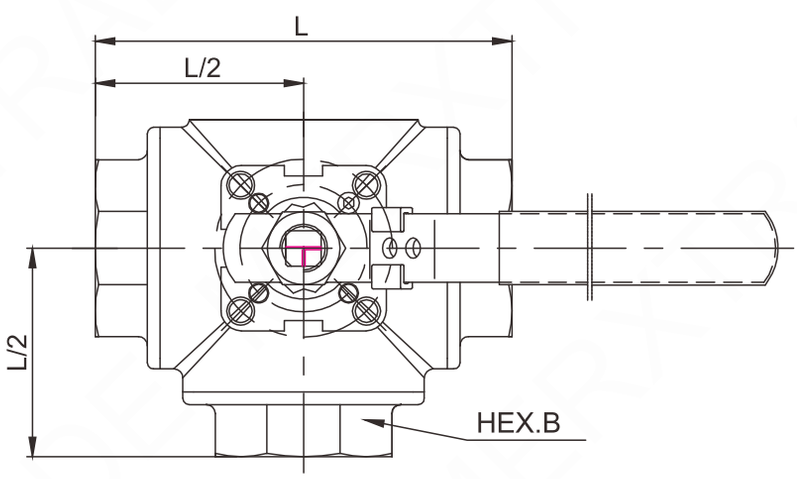


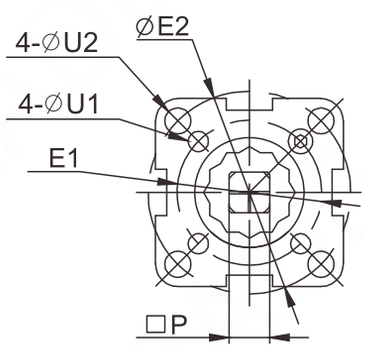
Automation (Optional)



Direct mount pad

(ISO5211)





DIMENSION TABLE

Unit : mm

DN	NPS	d	L	H	H1	W	P	M	E1	E2	U1	U2	HEX.B	ISO 5211
8	1/4	11	79	43.0	73	147	9	9	36	42	6	6	27	F03~F04
10	3/8	11	79	43.0	73	147	9	9	36	42	6	6	27	F03~F04
15	1/2	11	79	43.0	73	147	9	9	36	42	6	6	27	F03~F04
20	3/4	15	88	49.0	79	147	9	9	36	50	6	7	34	F03~F05
25	1	20	108	59.5	91	177	11	11	42	50	6	7	41	F04~F05
32	1 1/4	25	124	63.0	93	177	11	11	42	70	6	9	50	F04~F07
40	1 1/2	32	135	73.5	105	215	14	14	50	70	7	9	56	F05~F07
50	2	40	164	82.8	115	215	14	14	50	70	7	9	70	F05~F07

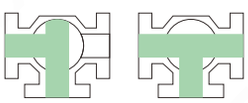
Unit : inch

DN	NPS	d	L	H	H1	W	P	M	E1	E2	U1	U2	HEX.B	ISO 5211
8	1/4	0.43	3.11	1.69	2.87	5.79	0.354	0.35	1.42	1.65	0.24	0.24	1.06	F03~F04
10	3/8	0.43	3.11	1.69	2.87	5.79	0.354	0.35	1.42	1.65	0.24	0.24	1.06	F03~F04
15	1/2	0.43	3.11	1.69	2.87	5.79	0.354	0.35	1.42	1.65	0.24	0.24	1.06	F03~F04
20	3/4	0.59	3.46	1.93	3.11	5.79	0.354	0.35	1.42	1.97	0.24	0.28	1.34	F03~F05
25	1	0.79	4.25	2.34	3.54	6.97	0.433	0.43	1.65	1.97	0.24	0.28	1.61	F04~F05
32	1 1/4	0.98	4.88	2.48	3.66	6.97	0.433	0.43	1.65	2.76	0.24	0.35	1.97	F04~F07
40	1 1/2	1.26	5.31	2.89	4.13	8.46	0.551	0.55	1.97	2.76	0.28	0.35	2.20	F05~F07
50	2	1.57	6.46	3.26	4.53	8.46	0.551	0.55	1.97	2.76	0.28	0.35	2.76	F05~F07

FLOW PATTERNS FOR 3 WAY VALVE

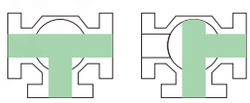
T-PORT 90° TURN

POSITON 1 POSITON 2



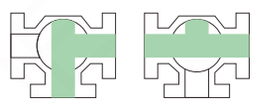
FLOW PLAN A

POSITON 1 POSITON 2



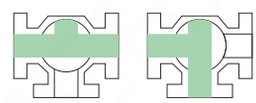
FLOW PLAN B

POSITON 1 POSITON 2



FLOW PLAN C

POSITON 1 POSITON 2



FLOW PLAN D

T-PORT 180° TURN

POSITON 1 POSITON 2 POSITON 3

FLOW PLAN E

POSITON 1 POSITON 2 POSITON 3

FLOW PLAN F

FLOW PLAN H

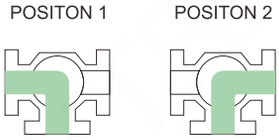
POSITON 1 POSITON 2 POSITON 3

FLOW PLAN G

POSITON 1 POSITON 2 POSITON 3

L-PORT 90° TURN

POSITON 1 POSITON 2



FLOW PLAN J

L-PORT 180° TURN

POSITON 1 POSITON 2 POSITON 3

FLOW PLAN K