

# BVMM MANIFOLD MOUNT

## 2-and 3-Way models

**3000/6000 PSI Working Pressure ~ Sizes from ¼" to 2"**

*Aluminum & Steel models dimensionally interchangeable ~ Near-zero leakage BVMMZ 3-way*



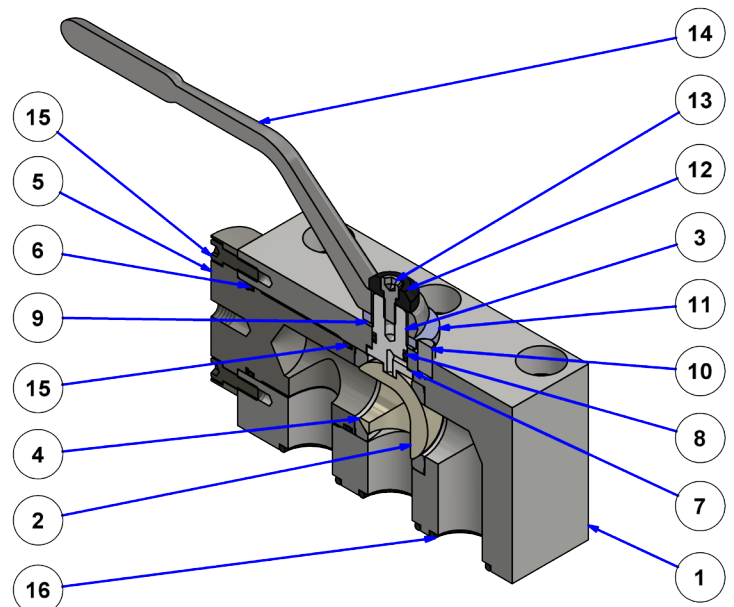
DMIC's re-engineered **BVMM** brings into the cost-competitive mainstream the possibility of surface mounting a High Pressure **2- or 3-Way** ball valve to your custom manifold, eliminating an external fluid connection and improving the integrity of your design. Choice of aluminum construction balances valve pressure characteristics with your selected manifold material. Exclusive and original DMIC design.

- Offered with "L-Bore" standard, "T" bore optional in 90° and 180° action
- **Made in our U.S. factory** for fast delivery in Steel (6000 PSI) and lightweight Aluminum model for 3000 PSI service
- **Single Bolt-On Plug Design** reduces pressure drop and valve cost
- **Near Zero leakage configurations, see notes on next page**

## Service Parts BOM

BVMM	SERVICE PARTS BOM	
Index	Qty	Description
1	1	Valve Body
2	1	Ball
3	1	Spindle
4	2	Ball Seal
5	1*	End Cap
6	1*	End Cap O-Rings
7	1	Internal Thrust Washer
8	1	Spindle O-Ring(s)
9	1	External Glide Washer
10	1	Stop Pin
11	1	Stop Washer
12	1	Color Code Cap
13	1	Handle Screw
14	1	Handle
15	12*	End Cap Screws
16	3*	Face O-Ring(s)

\*Quantity depends on size and configuration



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## Ordering Codes Summary

See page 14 for accessory codes

**BVMM**  
or  
**BVMMZ**

\*\*\*\* A 4 1 1 1 \* \* \* \* \*

**O-Ring Material**

Code	Description
1	Buna-N (Standard)
2	EPR
3	Viton™
4	Teflon™

**Size Codes**

Code	Port Size
0250	¼"
0375	⅜"
0500	½"
0750	¾"
1000	1"
1250	1¼"
1500	1½"
2000	2"

**Ball Pattern**

BVMM 2-Way	
Not Needed	
BVMM 3-Way	
A	L-Bore, Port Overlap (Standard)
B	L-Bore 180° Action
C	T-Bore 90° Action
D	T-Bore 180° Action

**Body Material**

Code	Description
1	Carbon Steel
2	Stainless Steel
4	Aluminum

**Ball Seal Material**

Code	Description
1	Delrin™
2	PTFE Teflon™ (1500 PSI MAX)
4	High Temp PEEK
6	Delrin™ AF (low Friction)

**Ball & Spindle Mat'l**

Code	Description
1	Carbon Steel
2	316 Stainless Steel
6	416 Stainless Spindle 316 Stainless Ball

Call Factory for larger sizes 18"+

**Note:** Changes from standard materials may result in changes to temperature and/or pressure rating. Also, carbon and stainless steel valves come standard with a steel crank handle; while an aluminum valve comes equipped with a aluminum crank handle.

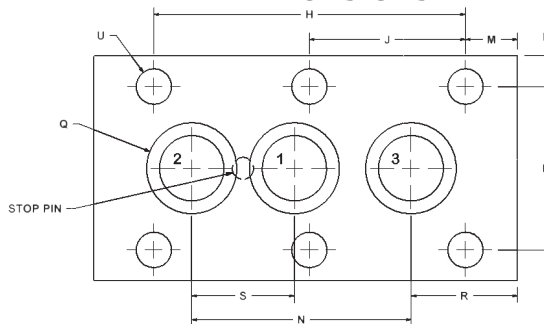
**Q: Can I use a Diverter Valve or do I need a True Multi-Way Valve?**

A: The "BVMMZ" version of our diverter valve can take the place of a true multi way valve in many circuits.

Specifically, the question you must ask your application is: "Will pressure ever be applied at port 2 or 3 when the valve is blocked?"

If YES, you must use a "real" 3-way valve, or the "BVMMZ" model. If NO, a Diverter such as "BVMM" is acceptable.

**Manifold Pad Dimensions**



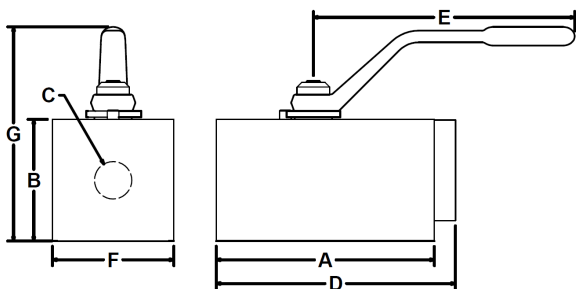
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BVMM	Ball Valve Dimensions										
	Part Number	Port Size	Rated Pressure PSI	Valve Dimensions (in)							
Valve Length A				Body Height B	Internal Bore C	Overall Length D	Handle Length E	Valve Width F	Overall Height G	Bolt Dist A H	Bolt Dist B J
BVMM-0250-****	1/4"	6000	2.50	1.50	0.24	2.94	4.50	2.00	3.12	1.653	These models have only 4 bolt holes
BVMM-0250-4***		3000	2.50	1.50	0.24	2.94	5.09	2.00	3.51	1.653	
BVMM-0375-****	3/8"	6000	3.22	1.72	0.38	3.66	4.50	2.25	3.35	2.165	
BVMM-0375-4***		3000	3.22	1.72	0.38	3.66	5.09	2.25	3.74	2.165	
BVMM-0500-****	1/2"	6000	3.95	2.00	0.50	4.39	4.50	2.25	3.62	3.267	1.633
BVMM-0500-4***		3000	3.95	2.00	0.50	4.39	5.09	2.25	4.00	3.267	1.633
BVMM-0750-****	3/4"	6000	5.21	2.75	0.79	5.64	7.00	2.75	5.22	3.818	1.909
BVMM-0750-4***		3000	5.21	2.75	0.79	5.64	6.81	2.75	5.34	3.818	1.909
BVMM-1000-****	1"	6000	5.85	3.25	0.94	6.41	7.00	3.25	5.72	4.528	2.264
BVMM-1000-4***		3000	5.85	3.25	0.94	6.41	6.81	3.25	5.84	4.528	2.264
BVMM-1250-****	1 1/4"	6000	7.00	3.75	1.25	7.63	9.86	4.00	6.95	5.354	2.677
BVMM-1250-4***		3000	7.00	3.75	1.25	7.63	8.61	4.00	6.43	5.354	2.677
BVMM-1500-****	1 1/2"	6000	7.45	3.94	1.50	8.20	9.86	5.00	7.14	4.409	2.199
BVMM-1500-4***		3000	7.45	3.94	1.50	8.20	8.61	5.00	6.62	4.409	2.199
BVMM-2000-****	2"	6000	9.10	4.75	1.88	9.97	9.86	6.00	7.95	5.354	2.684
BVMM-2000-4***		3000	9.10	4.75	1.88	9.97	8.61	6.00	7.42	5.354	2.684

BVMM	Manifold Mounting Pad Dimensions									
	Part Number	Port Size	Mounting Pad Dimensions (in)							
Hole Spacing K			Bolt Hole from Opposite side of Stop Pin M	Port 2 to 3 Ctr N	Cntr of Bolt Hole to Body P	O-Ring Diam/Size Q	Opposite Side of Stop Pin to Port 3 R	Port 2 to 1 Center S	Bolt Hole & Max Bolt U	Counterbore Depth
Fits BVMM-0250****	1/4"	1.377	0.488	1.535	0.312	0.500 2-109	0.518	0.865	0.331 5/16", M8	0.35
Fits BVMM-0375****	3/8"	1.574	0.770	1.732	0.338	0.625 2-111	0.860	0.982	0.331 5/16", M8	0.35
Fits BVMM-0500****	1/2"	1.770	0.293	2.283	0.240	0.750 2-113	0.947	1.040	0.331 5/16", M8	0.35
Fits BVMM-0750****	3/4"	2.008	0.892	2.716	0.371	1.063 2-211	1.594	1.210	0.410 3/8", M10	0.41
Fits BVMM-1000****	1"	2.362	0.760	3.188	0.444	1.313 2-215	1.549	1.496	0.516 1/2", M12	0.52
Fits BVMM-1250****	1 1/4"	3.070	0.676	3.780	0.465	1.563 2-219	1.580	1.810	0.516 1/2", M12	0.52
Fits BVMM-1500****	1 1/2"	3.740	1.661	4.409	0.630	1.875 2-223	1.661	2.210	0.656 5/8", M16	0.64
Fits BVMM-2000****	2"	4.410	2.177	5.354	0.795	2.250 2-226	2.177	2.670	0.813 3/4", M20	0.80

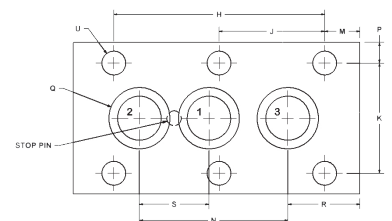


Note: Manifold pad dimensions are the same in 2 + 3 way model. On 2-way, port 1 is not there.

Note: Dimensions A & D may change based upon accessory code choice.

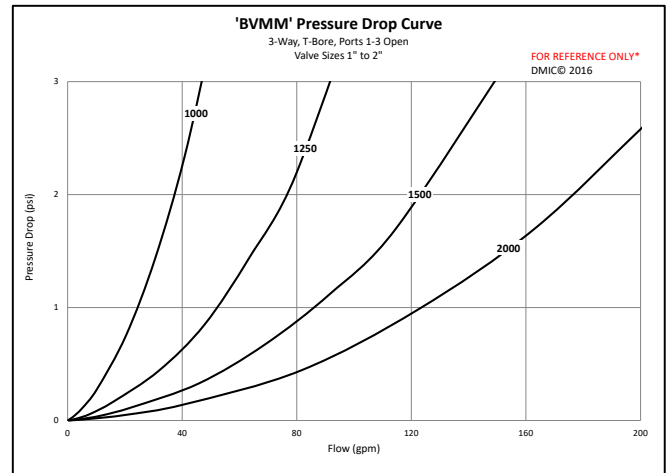
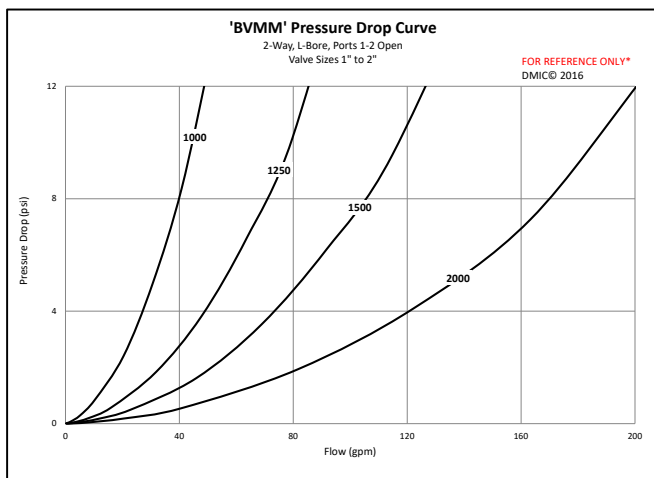
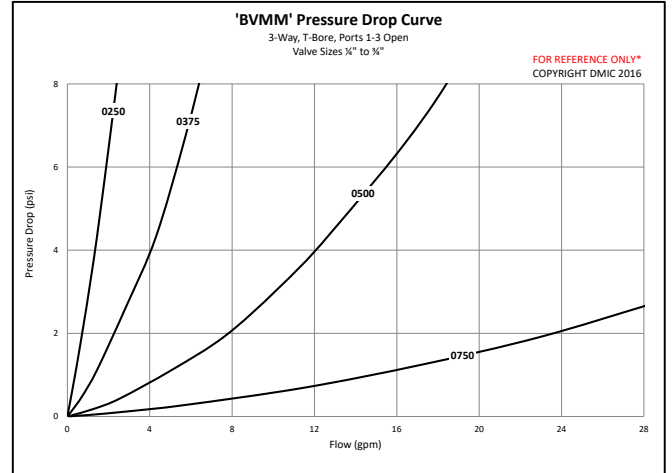
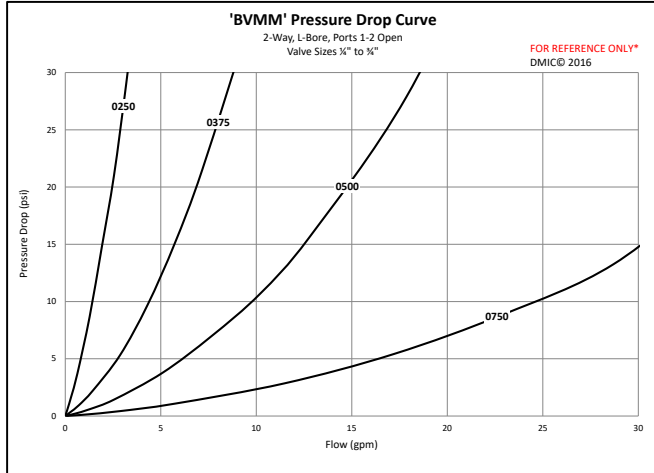
Note: the "PIN" location on the pad diagram. This is the stop pin on the valve top. DMIC ships valves with the handle pointing opposite of the pin.

## Manifold Pad Dimensions

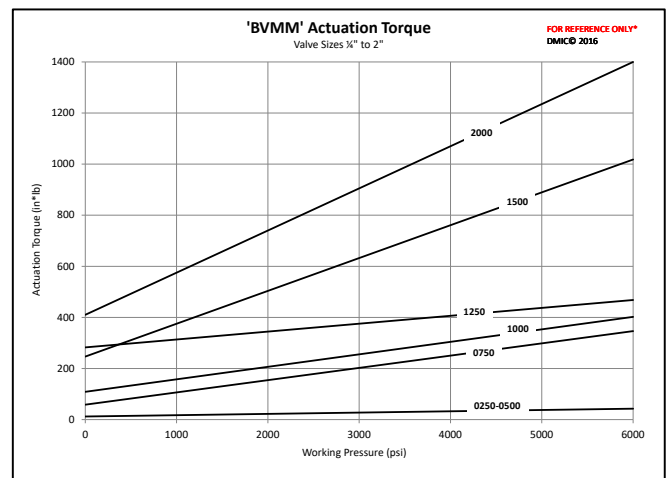
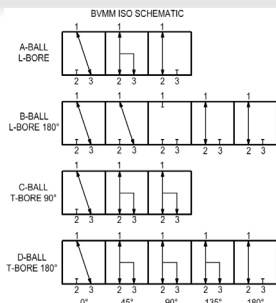


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## Flow Characteristic and Actuation Torque Curves



## BVMM Ball Pattern Schematic



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