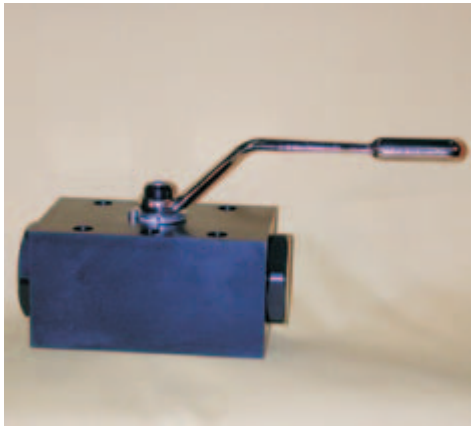


# 'BVMM' Manifold Mount

**2- and 3-Way models ; Improved design for 2001 ; 3000/6000 PSI Working Pressure; Sizes from 1/4" to 2" Aluminum & steel models dimensionally interchangeable; Near-zero leakage 'BVMMZ' 3-way**

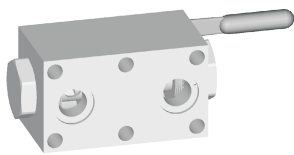


DMIC's re-engineered 'BVMM' brings into the cost-competitive mainstream the possibility of surface mounting a High Pressure **2- or 3-Way** ball valve to your custom manifold, eliminating an external fluid connection and improving the integrity of your design. Choice of aluminum construction balances 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 new lightweight Aluminum model for 3000 PSI service
- ☑ Refined **Spindle-Glide™** design and Delrin ball seals extend service
- ☑ **Upgraded Twin Plug Design** reduces pressure drop and valve cost
- ☑ **New for 2001 ! The 'BVMMZ' 3-way model offers near-zero leakage**

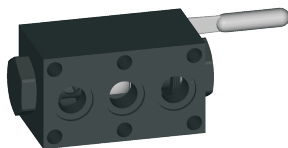
## About 'BVMM' Series

DMIC's 'BVMM' mounts directly to your steel or aluminum manifold, increasing circuit integration and reliability. DMIC's now **industry standard Manifold Pad** is on file with the world's premier manifold makers, so when ordering your manifold you need simply specify that DMIC Ball Valve porting(s) are to be included, eliminating delays, costs, headaches and incompatibilities.



### BVMM 2-Way

This model does not use a ball pattern code. Operates as an on-off ball valve, accepts DMIC accessories. Shown in aluminum.



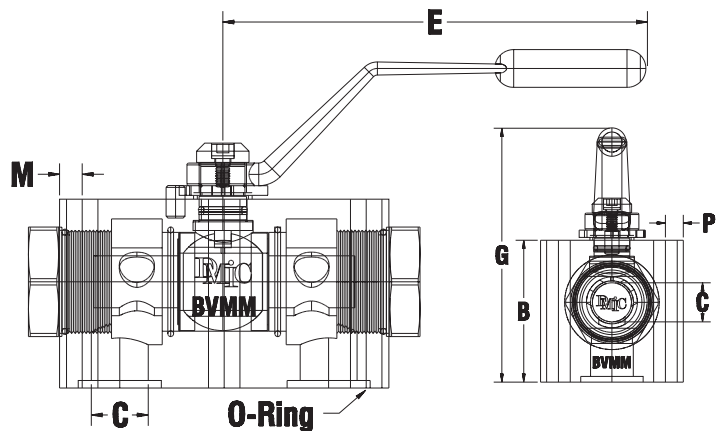
### BVMM 3-Way

Include a ball pattern code to denote a 3-way valve. Usual inlet is port #1 (see below). Available in L and T bore. Shown in steel.

## Dimensional Sketches

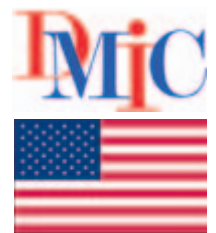
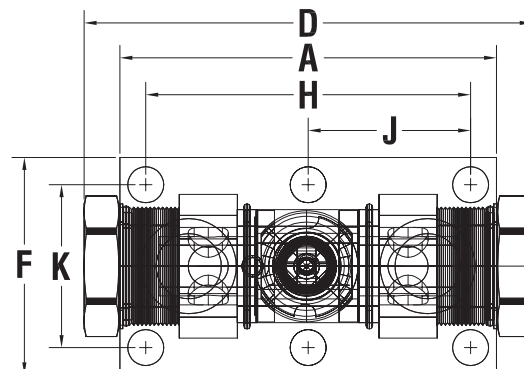
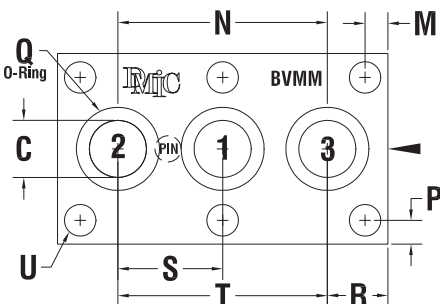
'BVMM' series valves are unique in our product line and share no external dimensions with the other series, so we offer all dimensions in a grouped table on the next page.

**Please call DMIC to verify the current status of these dimensions in this catalog before manufacturing a prototype manifold.**



## Manifold Pad Dims

**Prevent expensive layout mistakes !**  
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 the pin.



**'BVMM' MOUNTING PADS ARE NOT SYMMETRICAL !**



# 'BVMM' Manifold Mount

## Ball Valve Dimensions

Most 'BVMM' valve dimensions vary based on valve size. We have included dimensions for the Ball Valve as well as the Mounting Pad in the two tables below. **When designing by spec and/or preparing to build manifold prototypes, please request a certified print.**

BVMM	'BVMM' Ball Valve Dimensions											
	Part Number	Port Size	Rated Pressure PSI (bar)	VALVE DIMENSIONS in (mm)								Bolt Dist A H
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**-1111	1/4"	6000	3.00	1.50	0.24	3.75	4.50	2.00	3.11	1.653	These models have only 4 bolt holes.	
BVMM-0250**-4111		413.8	76.2	38.1	6.1	95.3	114.3	50.8	78.9	42.0		
BVMM-0375**-1111	3/8"	3000	3.00	1.50	0.24	3.75	4.50	2.00	3.11	1.653		
BVMM-0375**-4111		206.9	76.2	38.1	6.1	95.3	114.3	50.8	78.9	42.0		
BVMM-0375**-1111	3/8"	6000	3.22	1.61	0.38	3.97	4.50	2.19	3.22	2.165		
BVMM-0375**-4111		413.8	81.8	40.9	9.5	100.8	114.3	55.6	81.7	55.0		
BVMM-0500**-1111	1/2"	3000	3.22	1.61	0.38	3.97	4.50	2.19	3.22	2.165		
BVMM-0500**-4111		206.9	81.8	40.9	9.5	100.8	114.3	55.6	81.7	55.0		
BVMM-0500**-1111	1/2"	6000	4.38	1.96	0.51	5.38	4.50	2.38	3.57	3.267		1.634
BVMM-0500**-4111		413.8	111.3	49.8	13.0	136.7	114.3	60.3	90.6	83.0		41.5
BVMM-0750**-1111	3/4"	3000	4.38	1.96	0.51	5.38	4.50	2.38	3.57	3.267	1.634	
BVMM-0750**-4111		206.9	111.3	49.8	13.0	136.7	114.3	60.3	90.6	83.0	41.5	
BVMM-0750**-1111	3/4"	6000	5.67	2.75	0.79	6.57	7.00	2.75	5.20	3.818	1.909	
BVMM-0750**-4111		413.8	143.9	69.9	20.1	166.8	177.8	69.9	132.0	97.0	48.5	
BVMM-1000**-1111	1"	3000	5.67	2.75	0.79	6.57	7.00	2.75	5.20	3.818	1.909	
BVMM-1000**-4111		206.9	143.9	69.9	20.1	166.8	177.8	69.9	132.0	97.0	48.5	
BVMM-1000**-1111	1"	6000	6.25	3.25	0.94	7.25	7.00	3.25	5.70	4.528	2.264	
BVMM-1000**-4111		413.8	158.8	82.6	23.9	184.2	177.8	82.6	144.7	115.0	57.5	
BVMM-1250**-1111	1 1/4"	3000	6.25	3.25	0.94	7.25	7.00	3.25	5.70	4.528	2.264	
BVMM-1250**-4111		206.9	158.8	82.6	23.9	184.2	177.8	82.6	144.7	115.0	57.5	
BVMM-1250**-1111	1 1/4"	6000	7.10	3.94	1.25	8.35	10.00	4.00	7.05	5.354	2.677	
BVMM-1250**-4111		413.8	180.3	100.0	31.8	212.1	254.0	101.6	179.2	136.0	68.0	
BVMM-1500**-1111	1 1/2"	3000	7.10	3.94	1.25	8.35	10.00	4.00	7.05	5.354	2.677	
BVMM-1500**-4111		206.9	180.3	100.0	31.8	212.1	254.0	101.6	179.2	136.0	68.0	
BVMM-1500**-1111	1 1/2"	6000	7.72	3.95	1.50	8.97	10.00	5.00	7.07	4.409	2.205	
BVMM-1500**-4111		413.8	196.1	100.4	38.1	227.8	254.0	127.0	179.6	112.0	56.0	
BVMM-2000**-1111	2"	3000	7.72	3.95	1.50	8.97	10.00	5.00	7.07	4.409	2.205	
BVMM-2000**-4111		206.9	196.1	100.4	38.1	227.8	254.0	127.0	179.6	112.0	56.0	
BVMM-2000**-1111	2"	6000	9.72	4.42	1.89	10.97	10.00	6.00	7.54	5.354	2.677	
BVMM-2000**-4111		413.8	247.0	112.2	47.9	278.7	254.0	152.4	191.4	136.0	68.0	

BVMM	Manifold Mounting Pad Dimensions for Steel & Aluminum 'BVMM'									
	Part Number	Port Size	MOUNTING PAD DIMENSIONS in (mm)							
Hole Spacing K			RH Side to B/Hole M	Port 1 to 3 Ctr N	RH Bott to B/Hole P	O-Ring Diam/Size Q	RH Side to Port 3 R	Port 2 to 1 Center S	Port 2 to 3 Center T	
Fits BVMM-0250**	1/4"	1.377	0.547	1.535	0.312	0.500	0.635	0.670	1.535	0.350
		35.0	7.3	39.0	7.9	2-109	16.1	17.0	39.0	5/16", M8
Fits BVMM-0375**	3/8"	1.575	0.285	1.732	0.308	0.625	0.628	0.750	1.732	0.350
		40.0	7.2	44.0	7.8	2-111	16.0	19.1	44.0	5/16", M8
Fits BVMM-0500**	1/2"	1.771	0.293	2.283	0.302	0.750	0.947	1.040	2.283	0.350
		45.0	7.4	58.0	7.7	2-113	24.1	26.4	58.0	5/16", M8
Fits BVMM-0750**	3/4"	2.007	0.892	2.716	0.372	1.063	1.594	1.210	2.716	0.410
		51.0	10.0	69.0	9.4	2-211	40.5	30.7	69.0	3/8", M10
Fits BVMM-1000**	1"	2.362	0.849	3.188	0.444	1.313	1.638	1.496	3.188	0.510
		60.0	11.5	81.0	11.3	2-215	41.6	38.0	81.0	1/2", M12
Fits BVMM-1250**	1 1/4"	3.070	0.676	3.780	0.465	1.563	1.580	1.810	3.780	0.516
		78.0	17.2	96.0	11.8	2-219	40.1	46.0	96.0	1/2", M12
Fits BVMM-1500**	1 1/2"	3.740	1.661	4.409	0.630	1.875	1.661	2.210	4.409	0.656
		95.0	42.2	112.0	16.0	2-223	42.2	56.1	112.0	5/8", M16
Fits BVMM-2000**	2"	4.409	2.178	5.354	0.796	2.250	2.178	2.670	5.354	0.830
		112.0	55.3	136.0	20.2	2-226	55.3	67.8	136.0	3/4", M20



# 'BVMM' Manifold Mount

BVMM-1 Steel Valve Construction		BVMM-4 Aluminum Valve Constr.	
Parameter	Material	Parameter	Material
BODY	Steel Body & Plugs, for 6000 PSI	BODY	Aluminum Body & Plugs, for 3000 PSI
BALL	Steel, Chrome Plated	BALL	Steel, Chrome Plated
SPINDLE	Steel, Zinc Plated	SPINDLE	Steel, Zinc Plated
STD HANDLE	Forged Steel, Nickel Plated	STD HANDLE	Forged Steel, Nickel Plated
BALL SEALS	Delrin, optional Teflon and PEEK	BALL SEALS	Delrin, optional Teflon and PEEK
O-RINGS	O-Ring + BU, Buna-N std.	O-RINGS	O-Ring + BU, Buna-N std.
TEMP RANGE	-22°F to 212°F (-30°/100°C)	TEMP RANGE	-22°F to 212°F (-30°/100°C)
LIFE EXPECTANCY	Over 1,000,000 cycles	LIFE EXPECTANCY	Over 1,000,000 cycles

## 'BVMM' 3-Way Model Ball Ordering Codes

Three way 'BVMM' valves use an additional ordering character to specify the ball pattern.

For example, a standard 3-way 1-inch 'BVMM' with "L-bore" ball would be model BVMM-1000A-1111.

The corresponding 2-way valve would be model BVMM-1000-1111. Please confirm availability of ball types B/C/D prior to placing express-freight orders.

BALL CODE	ISO CIRCUIT SCHEMATIC	BALL PATTERN	HANDLE PHASE	STOP WASHER TYPE
A		L-Bore Port Overlap		
B		L-Bore 180°		
C		T-Bore 90°		
D		T-Bore 180°		

## Optional Near Zero Leakage Version

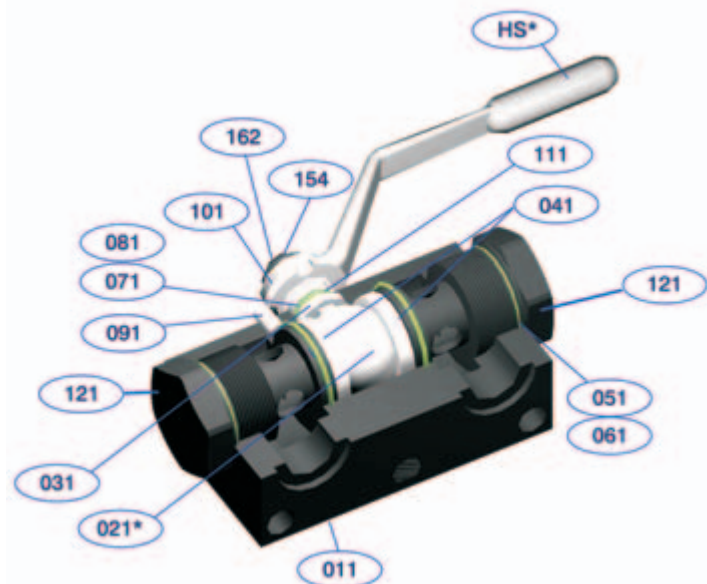
New for 2001 ! DMIC's design leadership now allows us to furnish the 3-way 'BVMM' with near-zero leakage - an industry exclusive. Call 1-800-248-3642 for more info.



Due to our policy of continual product improvement, the specifications in this catalog may change without notice. When designing by spec, please request a certified print.

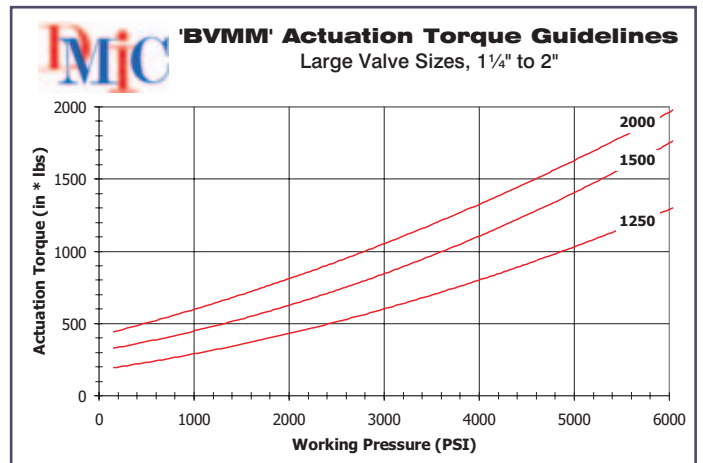
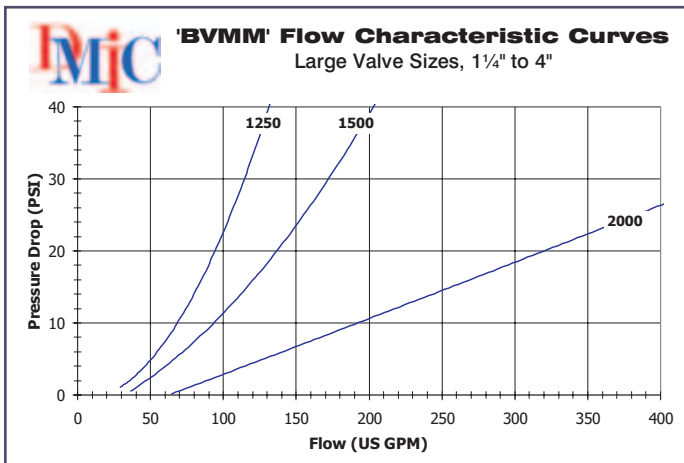
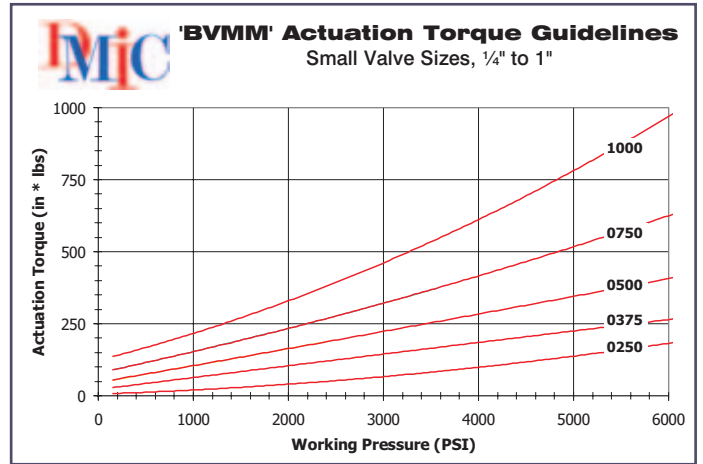
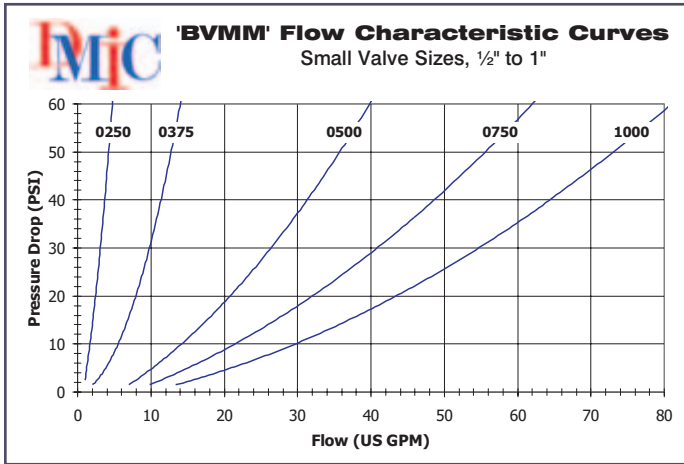
## 'BVMM' Service Parts BOM

BVMM		Service Parts BOM
Index	Qty	Description
011*	1	Valve Body
021*	1	Ball, see table for multiway code
031	1	Spindle, Steel
041	2	Ball Seal, Delrin
051	2	Internal O-Ring
061	2	Connection O-Ring
071	1	Spindle O-Ring
081	1	Spindle Backup Ring
091	1	Stop Pin
101	1	Stop Washer
111	1	Internal Glide Brg
121	2	Plug End
142	1	Spindle Glide Brg
154	1	Color Code Cap
162	1	Handle Bolt



# 'BVMM' Manifold Mount

## 'BVMM' Performance Curves



## 'BVMM' Ordering Codes Summary

**BVMM - \* \* \* \* A - 4 1 1 1**

Size Codes	
Code	Port Size
0250	1/4"
0375	3/8"
0500	1/2"
0750	3/4"
1000	1"
1250	1 1/4"
1500	1 1/2"
2000	2"

Ball Pattern	
Code	Description
blank	2-Way Valve
A	L-Bore Diverter
C	T-Bore, 90° Action
D	T-Bore, 180° Action

O-Ring Material	
Code	Description
1	Buna-N (Standard)
2	EPR
3	Viton
4	DMIC Hi-Temp

Ball Seal Material	
Code	Description
1	Delrin
2	PTFE Teflon
3	Peek
4	High Temperature
6	Super Low Friction

Body Material	
Code	Description
1	Carbon Steel
2	Stainless Steel
4	Aluminum

Ball & Spindle Mat'l	
Code	Description
1	Carbon Steel
2	Stainless Steel

