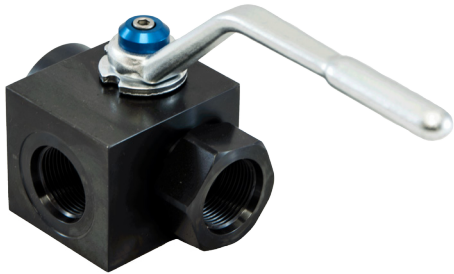


BV3D/BV3DZ STEEL DIVERTER

The smart alternative to "converted 2-way" diverters
 Rated for 3000 PSI ~ Sizes from ¼" to 2" NPT/SAE/BSP
 Designed as an "L-Bore" Diverter



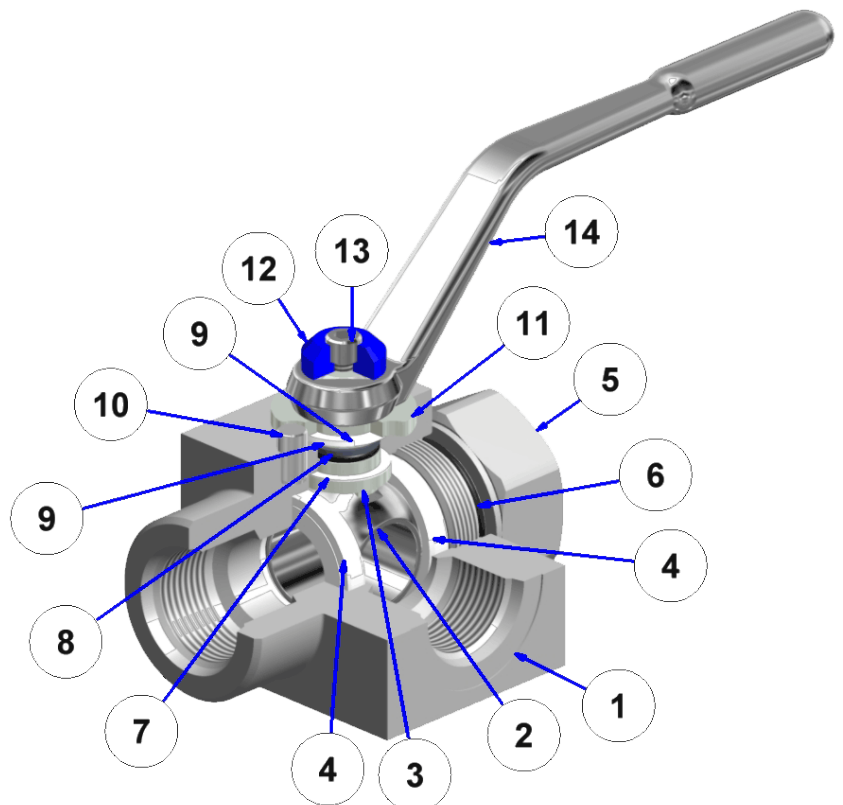
The genuine DMIC **BV3D** is a 3-way, "L-bore" diverter derived from the DMIC **BVH**. DMIC's newest high-end CNC equipment and advancements in manufacturing tolerance control allow the **BV3D** to satisfy many 3-way applications, providing a cost savings relative to a true 3-way valve. Consult DMIC Engineering for more information.

- Stocked with "L-Bore" standard ball; special "T-Bore" option available
- Slight port overlap prevents surprise upstream blowouts during shifting
- **DMIC's Innovative Spindle-Glide™** Design reduces actuation torque & increases valve longevity, especially under actuation
- **Every size can be Panel & Substrate Mounted**
- **Optional Skydrol, High Temp, Near Zero leakage configurations**

Service Parts BOM

BV3D/ BV3DZ	SERVICE PARTS BOM	
Index	Qty	Description
1	1	Valve Body
2	1	Ball
3	1	Spindle
4	2	Ball Seals
5	*	End Connection(s)
6	*	End Connection O-Ring
7	1	Internal Thrust Washer
8	1	Spindle O-Rings
9	1	External Glide Washer
10	1	Stop Pin
11	1	Stop Washer
12	1	Color Code Cap
13	1	Top Cap Screw
14	1	Handle

* - Quantity depends on size and combination of body



BV3D/BV3DZ STEEL DIVERTER

Ordering Codes Summary

See page 14 for accessory codes



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"

Connection Types		SAE Flange Conn	
Imperial Threads		SAE 4-Bolt Companion	
Code	Description	Code	Description
S	SAE ORB	FM	SAE C61 Comp UNC
N	NPT	GM	SAE C61 Comp Metric
J	JIC-Male	-	-
Metric Threads		SAE Split Flanges	
B	BSPP-special	SM	SAE C61 Split Flg Head
T	BSPT (Tapered Pipe)	-	-
ISO Threads		SAE 4 Bolt Standard	
IU	ISO6149	FL	SAE C61 Std UNC/Metric

Please see page 9 for complete connection availability matrix

O-Ring Material	
Code	Description
1	Buna-N (Standard)
2	EPR
3	Viton™

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

Ball Pattern	
Code	Description
A	L-Bore Diverter
C	T-Bore 90° Action
D	T-Bore 180° Action

Body Material	
Code	Description
1	Carbon Steel
2	Stainless Steel

Note: Changes from Standard Materials may result in changes to temperature and/or pressure rating.

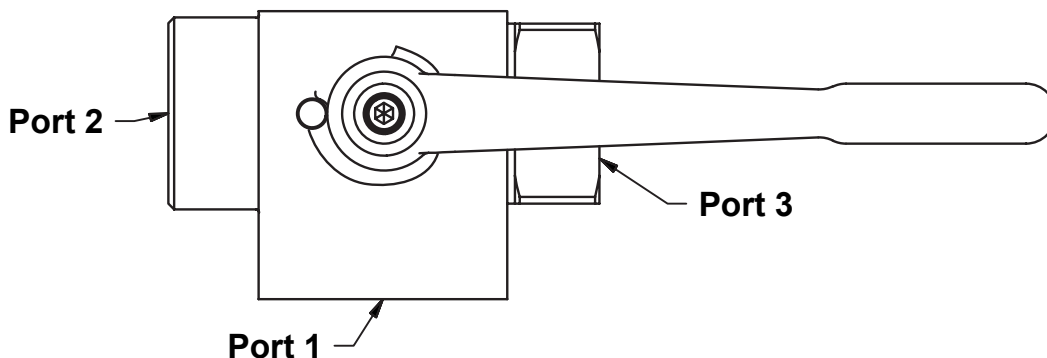
Note: Please refer to page 10 for customizing valve port connections

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

A: The "BV3DZ" 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 "BV3DZ" model. If NO, a Diverter such as "BV3D" or "BV3L" is acceptable.



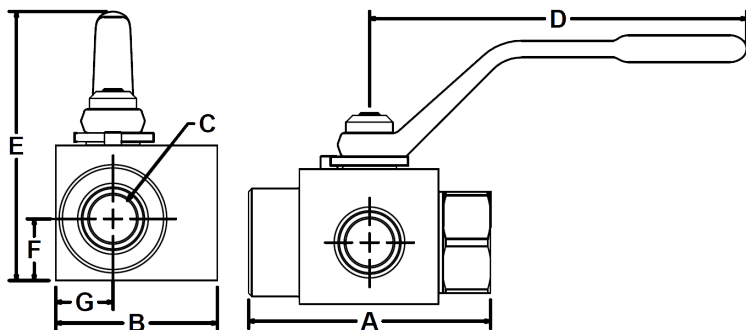
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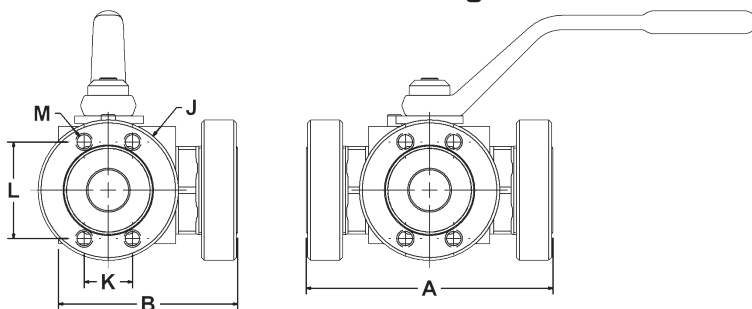
BV3D/BV3DZ STEEL DIVERTER

BV3D/ BV3DZ		Dependent Dimensions			
Threaded Connection					
Dimension (Inches)		A	B		
Port Code(s)	Port Size	Overall Length	Width Port 1		
N S B IU	¼"	2.74	2.00		
	⅜"	2.87	2.09		
	½"	3.36	2.00		
	¾"	3.82	2.75		
	1"	4.49	3.00		
Threaded Connections	1½"	4.85	3.97		
	1½"	5.33	4.17		
	2"	6.54	5.00		
SAE 4-Bolt Flange Connection					
Dimension (inches)		A	B		
Port Code(s)	Port Size	Overall Length	Width Port 1		
FM/GM FL	½"	4.26	2.81		
	¾"	4.77	3.42		
SAE 4-Bolt Comp/Std Flange Connections	1"	5.27	3.83		
	1½"	6.90	5.77		
	1½"	7.09	6.04		
	2"	8.06	7.04		
SAE Split Flange Connection					
Dimension (inches)		A	B		
Port Code(s)	Port Size	Overall Length	Width Port 1		
SM SAE Split Connections	½"	5.96	3.66		
	¾"	6.38	4.22		
	1"	6.98	4.69		
	1½"	7.50	6.07		
	1½"	9.09	7.04		
2"	9.10	7.56			
ANSI & DIN Flange Connection					
Dimension (inches)		-	-	-	-
Port Code(s)	Port Size	Please call Factory to request a Certified Print.			
A*	¾"				
D*	1"				
ANSI & DIN Flange Conn	1½"				
	2"				
Swivel Socket Weld Connection					
Dimension (inches)		A	B	-	-
Port Code(s)	Port Size	Overall Length	Width Port 1	Socket Depth	Socket Diameter
W4 Socket Weld Connections	½"	6.26	3.81	0.75	0.88
	¾"	7.46	4.76	0.75	1.09
	1"	7.67	5.03	1.00	1.36
	1½"	8.40	6.52	1.00	1.69
	1½"	9.47	7.23	1.00	1.95
2"	10.60	8.31	1.00	2.44	

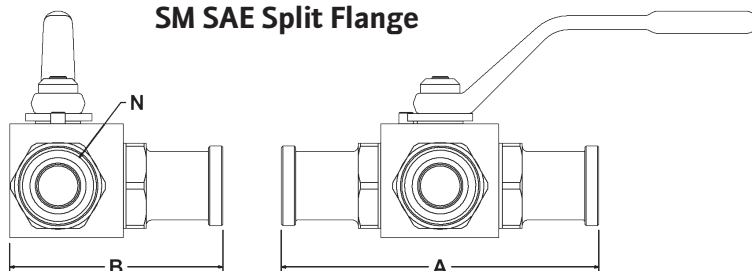
N, S, B, IU THREADED



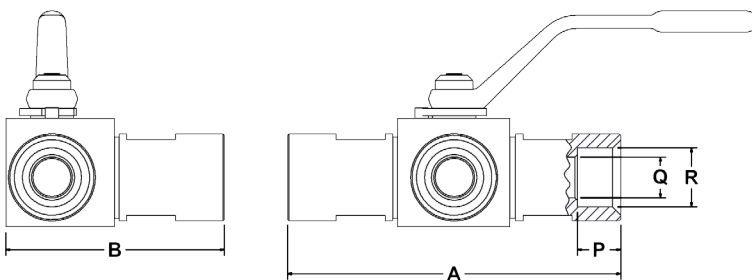
FM/GM/FL SAE 4-Bolt Flange



SM SAE Split Flange

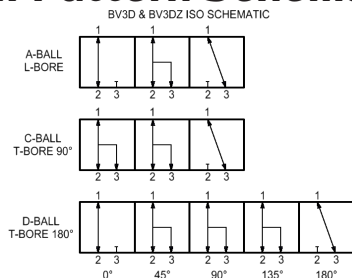


W4 Socket Weld Connection



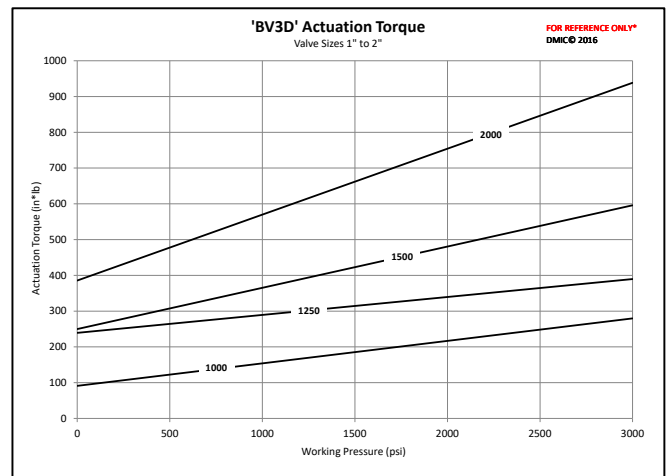
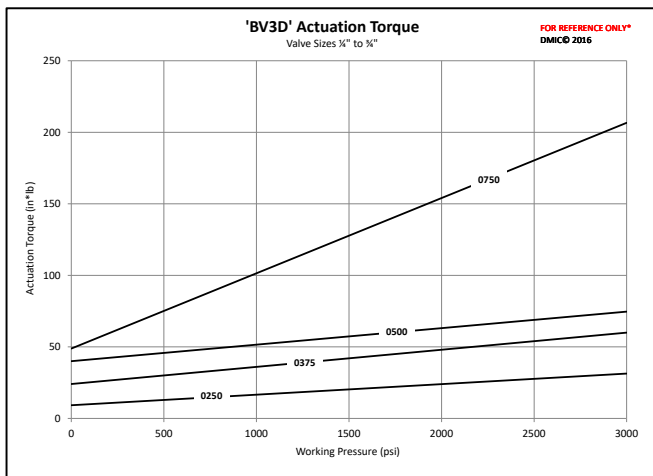
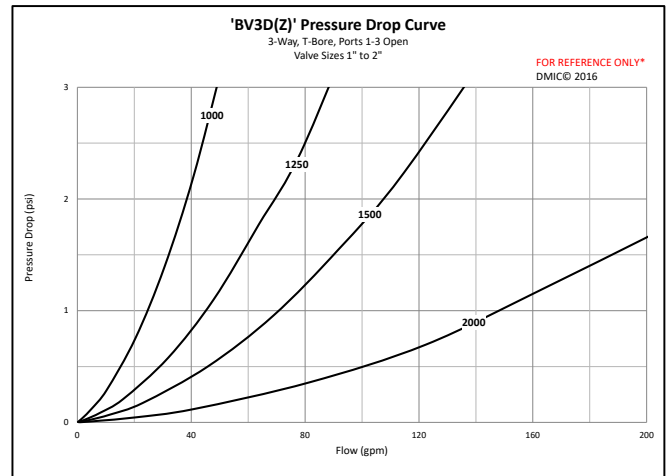
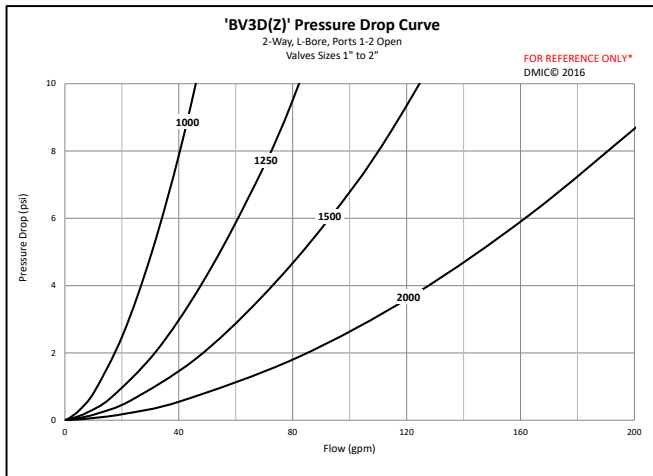
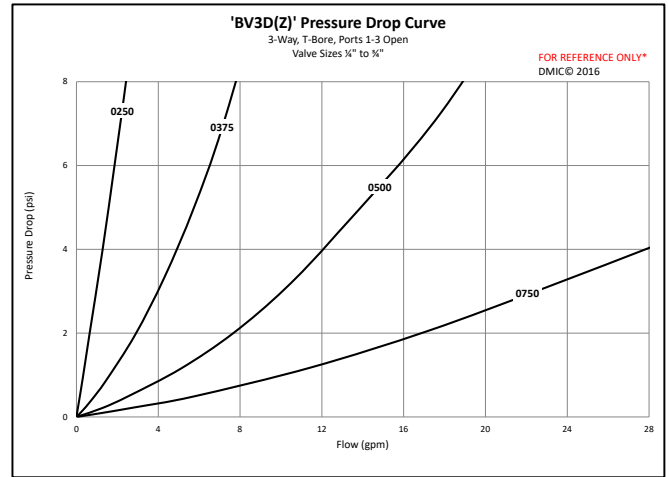
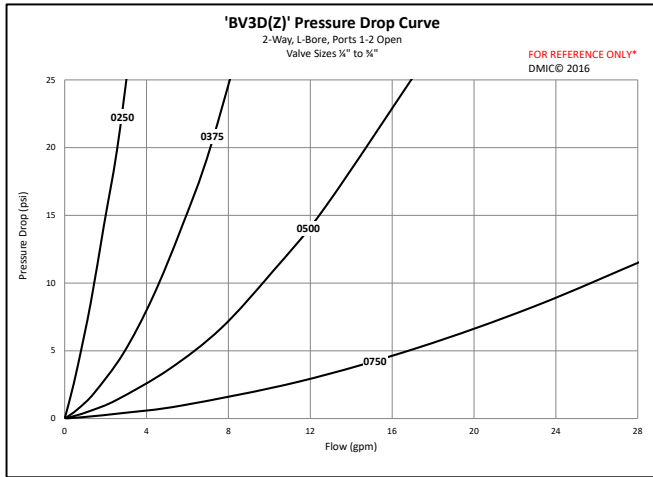
BV3D/ BV3DZ		Common Dimensions					
Part Number	Port Size	Rated Pressure PSI	Dimensions (inches)				
			Valve Bore C	Handle Length D	Overall Height E	Bot To Port Ctr F	Back of body to center G
BV3D-0250**** BV3DZ-0250****	¼"	3000	0.25	4.50	3.00	0.61	0.60
BV3D-0375**** BV3DZ-0375****							
BV3D-0500**** BV3DZ-0500****	½"		0.44	4.50	3.25	0.73	0.70
BV3D-0750**** BV3DZ-0750****							
BV3D-1000**** BV3DZ-1000****	¾"		0.69	7.00	4.72	1.00	0.94
BV3D-1250**** BV3DZ-1250****							
BV3D-1500**** BV3DZ-1500****	1"		0.88	7.00	4.97	1.14	1.06
BV3D-2000**** BV3DZ-2000****							
BV3D-1500**** BV3DZ-1500****	1½"		1.38	9.86	6.70	1.50	1.63
BV3D-2000**** BV3DZ-2000****							
BV3D-2000**** BV3DZ-2000****	2"		1.75	9.86	7.70	2.21	2.00

BV3DZ & BV3D Steel Diverter Ball Pattern Schematic



BV3D/BV3DZ STEEL DIVERTER

Flow Characteristic and Actuation Torque Curves



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