

# BV3V 5,000 PSI DIVERTER

**Rated for 5000 PSI ~ Sizes from ¼" to 2" NPT/SAE/BSP**  
*Designed as an inverse "T-Bore" Diverter for straight flow normal operation*



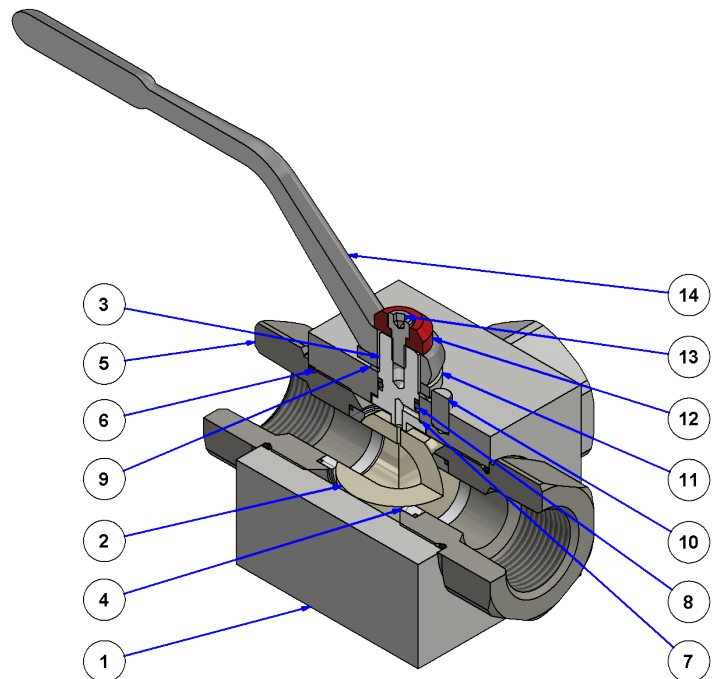
The DMIC **BV3V** is a 3-way, "inverse T-Bore" diverter derived from the DMIC **BV3D**. DMIC's newest high-end CNC equipment and advancements in manufacturing tolerance control allow the **BV3V** to satisfy many normal 2-way with 3 way divert option. Consult DMIC Engineering for more information.

- Similar to BV3D, but offers a straight flow path for normal operation
- Can be used as a compact 2-way ball valve with test point outlet
- Standard DMIC Blow-out proof stem design
- Ordering codes similar to BV3D line
- Standard reduced Bore design
- Zero leakage design is a standard

## Service Parts BOM

BV3V	SERVICE PARTS BOM	
Index	Qty	Description
1	1	Valve Body
2	1	Ball
3	1	Spindle
4	3*	Ball Seal
5	3*	End Connection(s)
6	3*	End Connection O-Ring(s)
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

\*Quantity depends on size and configuration



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## Ordering Codes Summary

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"

Call Factory for larger sizes 18"+



Connection Types		SAE Flange Conn	
<b>Imperial Threads</b>		<b>SAE 4-Bolt Companion</b>	
Code	Description	Code	Description
S	SAE ORB	FM	SAE C61 Comp UNC
N	NPT	FH	SAE C62 Comp UNC
MJ	JIC-Male	GM	SAE C61 Comp Metric
<b>Metric Threads</b>		GH	SAE C62 Comp Metric
B	BSPP-special	<b>SAE Split Flanges</b>	
T	BSPT (Tapered Pipe)	SM	SAE C61 Split Flg Head
		SH	SAE C62 Split Flg Head
<b>ISO Threads</b>		<b>SAE 4 Bolt Standard</b>	
IU	ISO6149	FL	SAE C61 Std UNC/Metric
-	-	FK	SAE C62 Std UNC/Metric

Please see page 11 for complete connection availability matrix

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

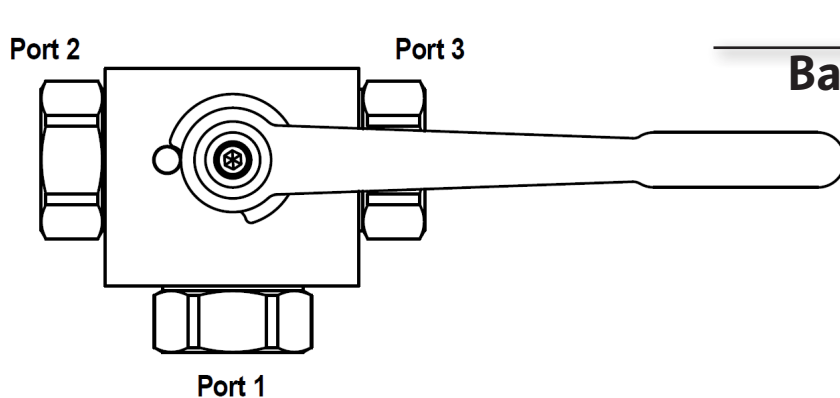
Ball Seal Material	
Code	Description
1	Delrin™
2	PTFE Teflon™ (1500 PSI MAX)
4	Peek
6	Delrin™ AF (low Friction)

Ball & Spindle Mat'l	
Code	Description
1	Carbon Steel
2	316 Stainless Steel
6	416 Stainless Spindle 316 Stainless Ball

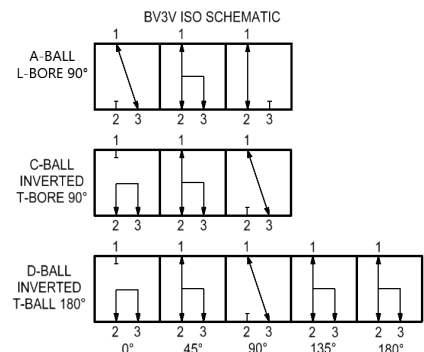
Ball Pattern	
Code	Description
A	L-Bore 90° Action
C	Inverted T-Bore 90° Action
D	T-Bore 180° Action

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.



### BV3V Ball Pattern Schematic



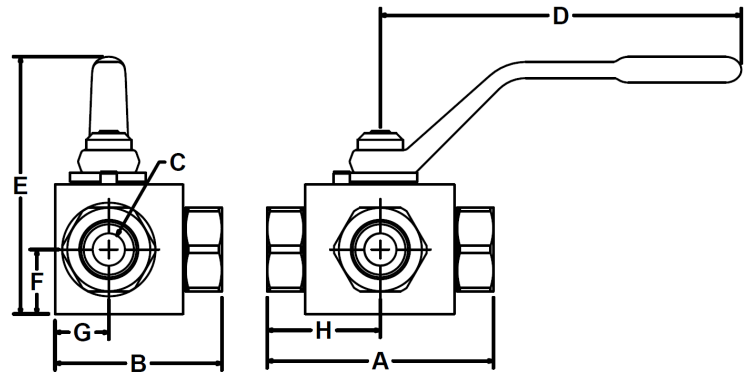
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## Common Dimensions

Port Size	Rated Pressure PSI	Dimensions IN							
		Overall Length A	Width Port 1 B	Valve Bore C	Handle Length D	Overall Height E	Bot To Port Ctr F	Back of body to center G	Center to end H
¼"	5000	3.41	2.48	0.31	4.50	3.37	0.85	0.77	1.71
⅜"		3.41	2.48	0.31	4.50	3.37	0.85	0.77	1.71
½"		3.41	2.48	0.38	4.50	3.37	0.85	0.77	1.71
¾"		4.39	3.24	0.63	7.00	4.97	1.25	1.04	2.19
1"		5.20	3.91	0.81	7.00	5.47	1.64	1.31	2.60
1¼"		5.69	4.32	1.00	9.86	6.70	1.69	1.47	2.85
1½"		6.05	5.1	1.25	9.86	7.17	1.97	2.08	3.02
2"		8.00	6.28	1.63	9.86	7.70	2.21	2.28	4.00



## SAE C.61 Split Flange Head Dimension

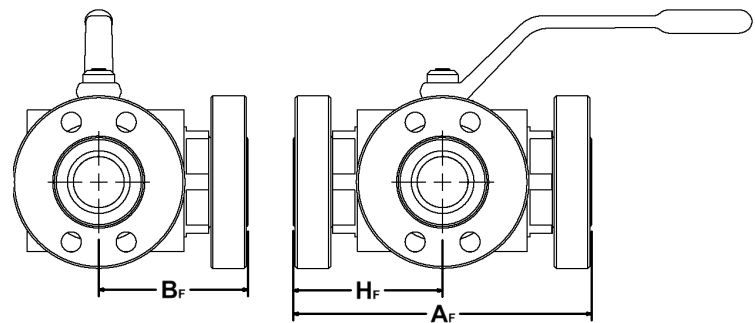
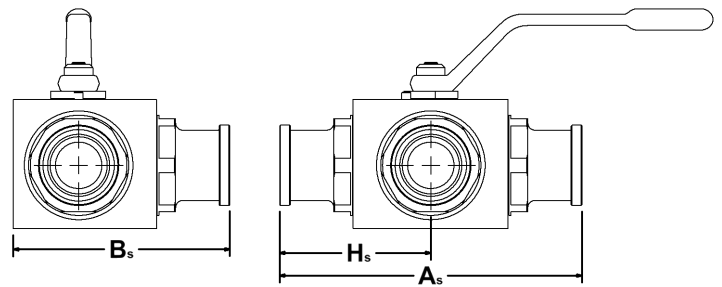
Dimension (inches)	Rated Pressure PSI	Overall Length A <sub>s</sub>	Width Port 1 B <sub>s</sub>	Center to end H <sub>s</sub>
½"	5000	6.00	3.77	3.00
¾"		6.86	4.47	3.43
1"		7.69	5.15	3.85
1¼"	4000	8.34	5.64	4.17
1½"	3000	10.29	7.22	5.14
2"		10.56	7.56	5.28

## SAE C.62 Split Flange Head Dimension

Dimension (inches)	Rated Pressure PSI	Overall Length A <sub>s</sub>	Width Port 1 B <sub>s</sub>	Center to end H <sub>s</sub>
½"	5000	6.00	3.77	3.00
¾"		7.34	4.71	3.67
1"		8.50	5.56	4.25
1¼"		9.62	6.28	4.81
1½"		12.27	8.21	6.13
2"		13.86	9.21	6.93

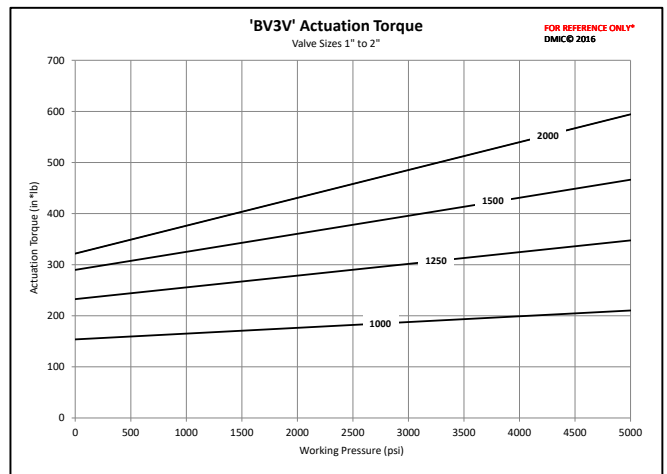
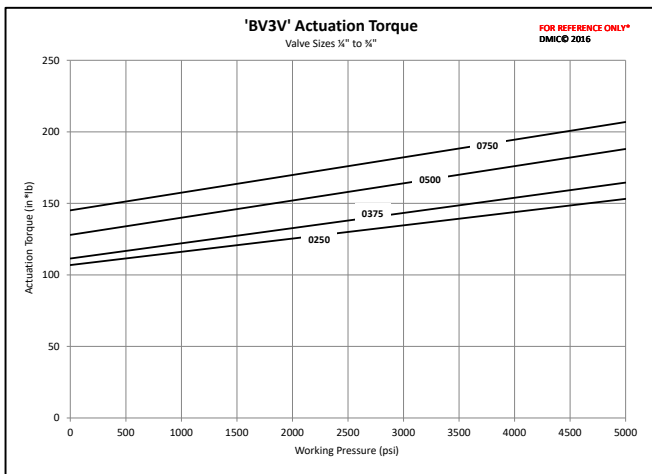
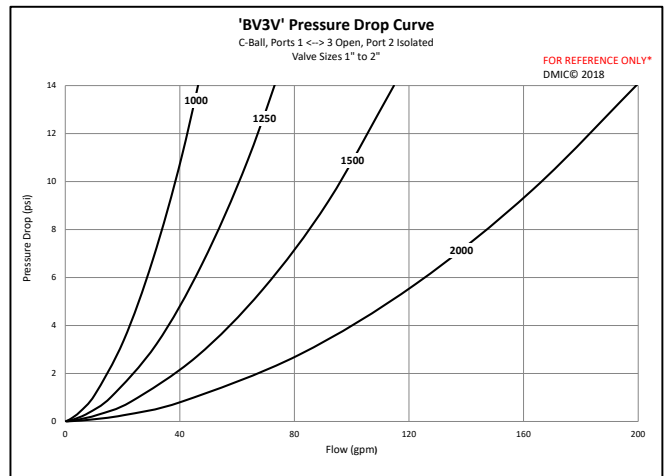
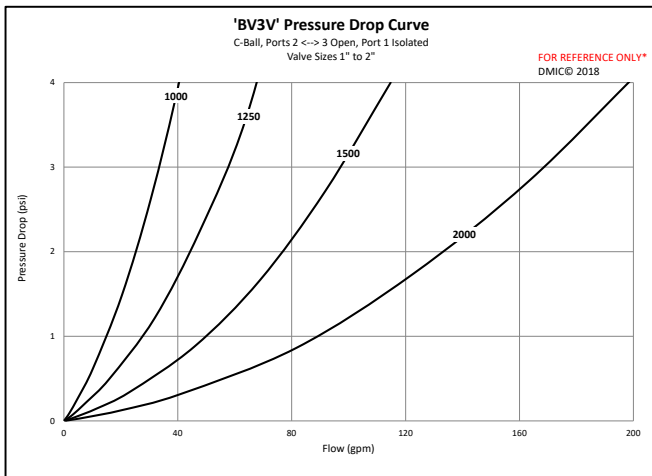
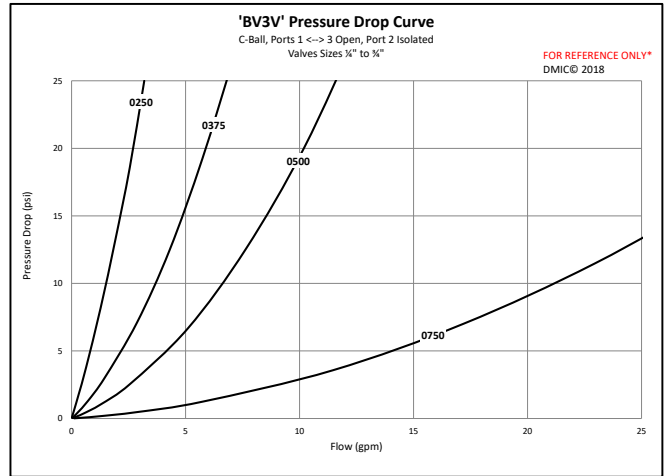
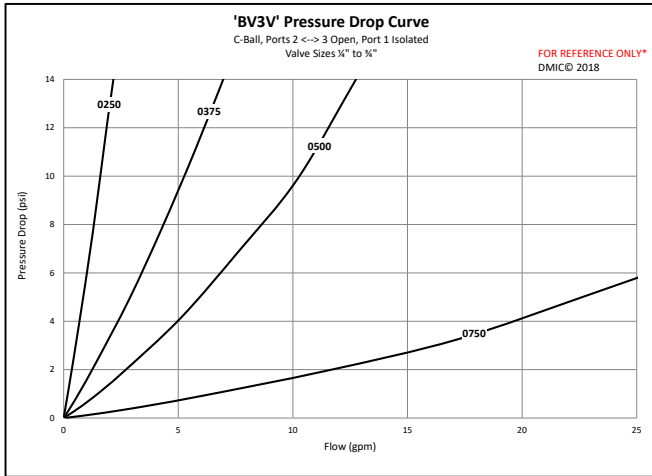
## SAE C.61 & C.62 Bolt Flange Dimension

Dimension (inches)	Rated Pressure PSI C.61	Rated Pressure PSI C.62	Overall Length A <sub>f</sub>	Width Port 1 B <sub>f</sub>	Center to end H <sub>f</sub>
½"	5000	5000	4.31	2.16	2.16
¾"			5.25	2.62	2.62
1"			5.98	2.99	2.99
1¼"	4000		7.75	3.88	3.88
1½"	3000		8.29	4.14	4.14
2"			9.52	4.76	4.76



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## Flow Characteristic and Actuation Torque Curves



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