

'BVAL' LOW PRESSURE

Ideal from suction to 400 PSI; NPT/SAE/6149/BSP ; PTFE Ball Seals
Optimized for DMIC's "SSW" System - All sizes unrestricted bore.



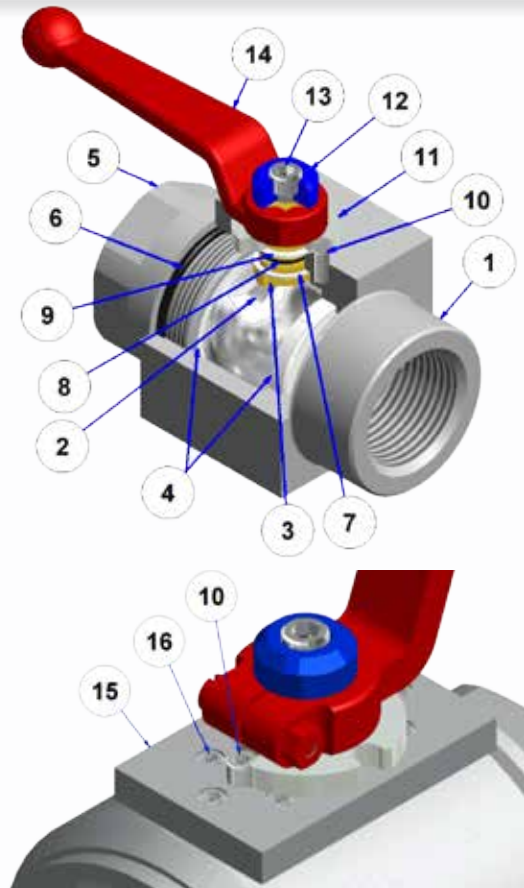
Most large bore valves sold in the hydraulic market today are simply "plumbing" valves, suitable primarily for low pressure, cold water use. DMIC's 'BVAL' is the first ball valve of its kind, specifically designed for leak-free Hydraulic Suction, Vacuum to 29" & Return line durability to 6" full bore.

- Built to take the pressure spikes, temperatures, & elevated demands of hydraulic service
- Uses top grade ball seals, with O-Ring sealing throughout.
- Suitable for actuation and panel mounting and accepts the full range of DMIC Ball Valve Accessories & Actuation Packages
- A reliable choice for Phosphate Esters, Water Glycols and other unusual media (std model ships with Teflon ball seals / Buna-N O-rings)

Valve Cutaway View & Service Parts BOM

BVAL	SERVICE PARTS BOM	
Index	Qty	Description
1	1	Valve Body
2	1	Ball, Brass
3	1	Spindle, Brass
4	2	Ball Seal
5	*	End Connection(s)
6	*	End Connection O-Rings(s)
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
15	1**	Top Cap
16	6**	Top Cap Mounting Bolts

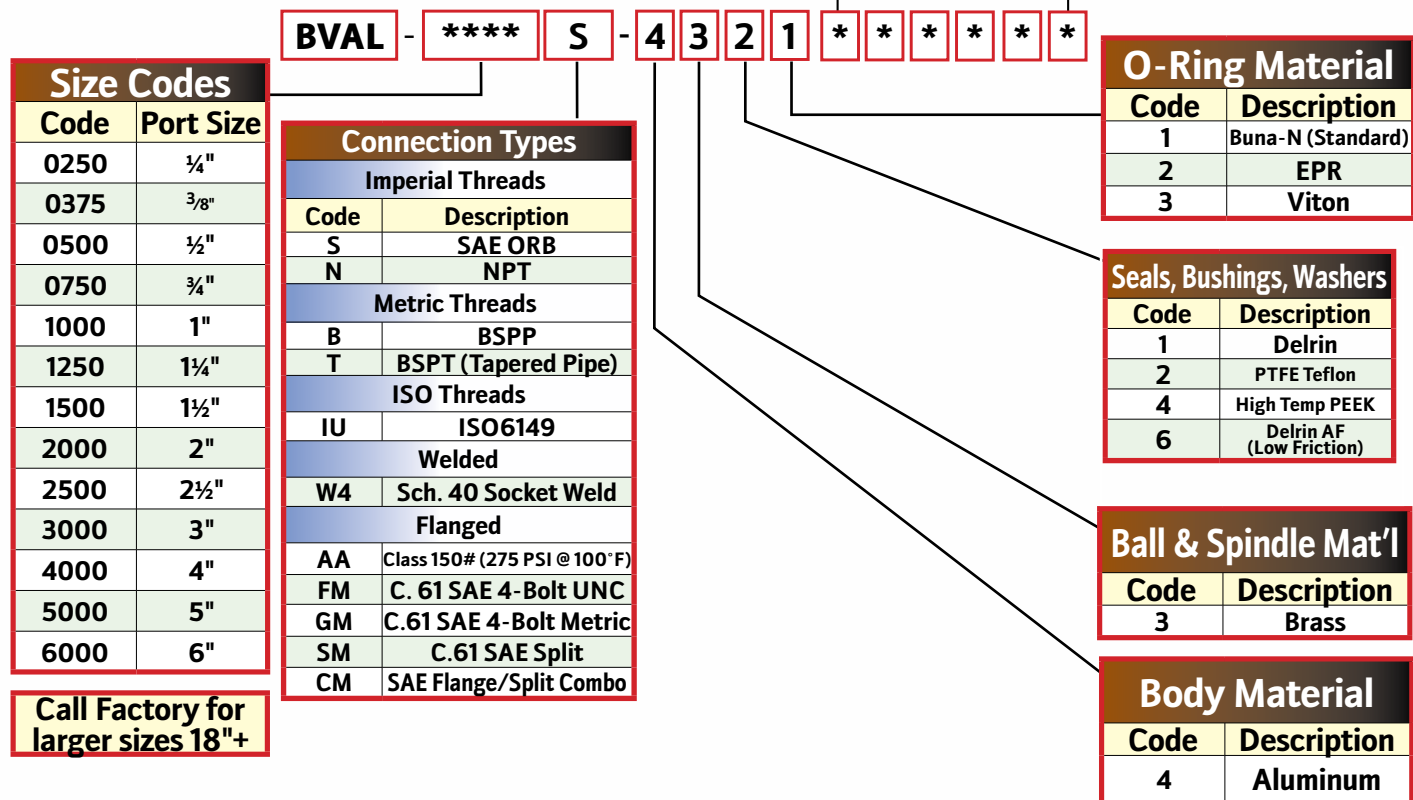
* - Quantity depends on size and combination of body
 ** - On Valve sizes 2-½ and larger



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Ordering Codes Summary

See page 14 for accessory codes



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

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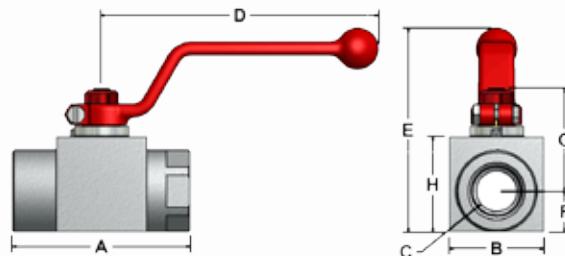


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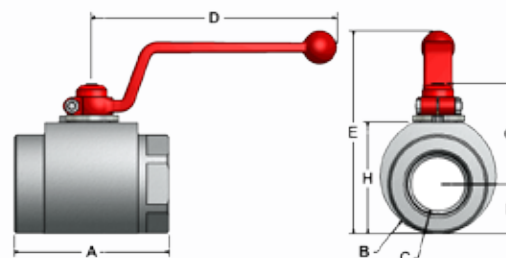
BVAL valves with flange and socket weld connections are composite valves, built using threaded valves and "SSW" adapters. To harness the full capabilities of DMIC's "SSW" Power Unit Layout system please call DMIC Helpline at 1-800-248-3642 to obtain the SSW Catalog.

BVAL		Dependent Dimensions				
Threaded Connection						
Dimension (inches)		A	E	F	G	H
Port Code(s)	Port Size	Overall Length	Overall Height	Bot to Port Ctr	Port Ctr to Top	Valve Height
N S B IU IA Threaded Connections	¾"	2.63	2.70	0.63	1.66	1.50
	⅝"	2.63	2.70	0.63	1.66	1.50
	½"	2.63	2.70	0.63	1.66	1.50
	¾"	3.27	3.77	0.76	1.89	1.75
	1"	3.47	4.01	0.88	1.98	2.00
	1¼"	3.90	5.24	1.19	2.58	2.66
	1½"	4.32	5.65	1.39	2.79	3.09
	2"	4.90	6.41	1.82	3.12	3.83
	2½"	6.00	8.00	2.50	4.17	5.35
3"	7.31	8.99	3.00	4.65	6.31	
4"	8.89	10.01	3.50	5.17	7.36	
SAE 4-Bolt Flange Connection						
Dimension (inches)		A	A	—	—	—
Port Code(s)	Port Size	Overall Length FM/GM	Overall Length FL	Flg Pad Long	Flg Pad Short	UNC Bolt Thrd
FM GM FL SAE 4-Bolt Comp/Std Flg Conn	¾"	7.59	8.84	1.88	0.88	⅝"
	1"	7.81	9.04	2.06	1.03	⅝"
	1¼"	8.47	9.72	2.31	1.19	⅞"
	1½"	8.89	9.89	2.75	1.41	½"
	2"	9.47	11.22	3.06	1.69	½"
	2½"	10.93	12.67	3.50	2.00	½"
	3"	12.64	15.14	4.19	2.44	⅝"
	4"	14.22	16.72	5.13	3.06	⅝"
SAE Split Flange Connection						
Dimension (inches)		A	—	—	—	A _{CM}
Port Code(s)	Port Size	Overall Length SM	O-Ring No.	DMIC Split Flange Kit		Length A (Combo) CM
SM CM SAE Split & Combo Flange Connections	¾"	8.14	2-214	FSL-0750SK		7.87
	1"	8.26	2-219	FSL-1000SK		8.03
	1¼"	9.33	2-222	FSL-1250SK		8.89
	1½"	9.77	2-225	FSL-1500SK		9.33
	2"	10.85	2-228	FSL-2000SK		10.16
	2½"	12.36	2-232	FSL-2500SK		11.65
	3"	13.68	2-237	FSL-3000SK		13.16
	4"	15.77	2-245	FSL-4000SK		15.00
ANSI Flange Conn.						
Dimension (inches)		A	ANSI 150# FLANGE			
Port Code(s)	Port Size	Overall Length	Flg Diam	B/Ctr Diam	Bolt Hole Dia	# Bolt Holes
AA ANSI 150# Flange Connections (300PSI nominal)	½"	5.38	3.50	2.38	0.63	4
	¾"	6.90	3.88	2.75	0.63	4
	1"	7.42	4.25	3.12	0.63	4
	1¼"	8.15	4.62	3.50	0.63	4
	1½"	7.42	5.00	3.88	0.63	4
	2"	9.56	6.00	4.75	0.75	4
	2½"	11.02	7.00	5.50	0.75	4
	3"	12.46	7.50	6.00	0.75	4
	4"	14.19	9.00	7.50	0.75	8
SAE Split Flange Connection						
Dimension (inches)		A	—	—	—	
Port Code(s)	Port Size	Overall Length	Pipe OD	Socket Depth		
W4 Socket Weld Connections	¾"	5.84	1.05	0.38		
	1"	6.04	1.31	0.38		
	1¼"	6.72	1.66	0.38		
	1½"	7.14	1.91	0.38		
	2"	7.72	2.38	0.38		
	2½"	8.94	2.88	0.38		
	3"	10.64	3.50	0.50		
	4"	12.22	4.50	0.50		

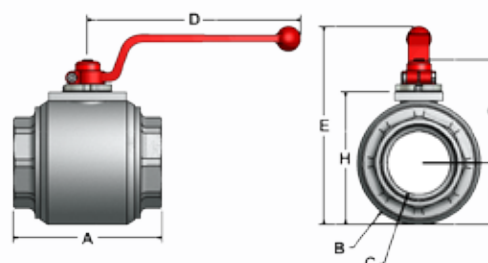
BVAL Block Body, 1/4" - 1"



BVAL Round Body, 1 1/4" - 2"



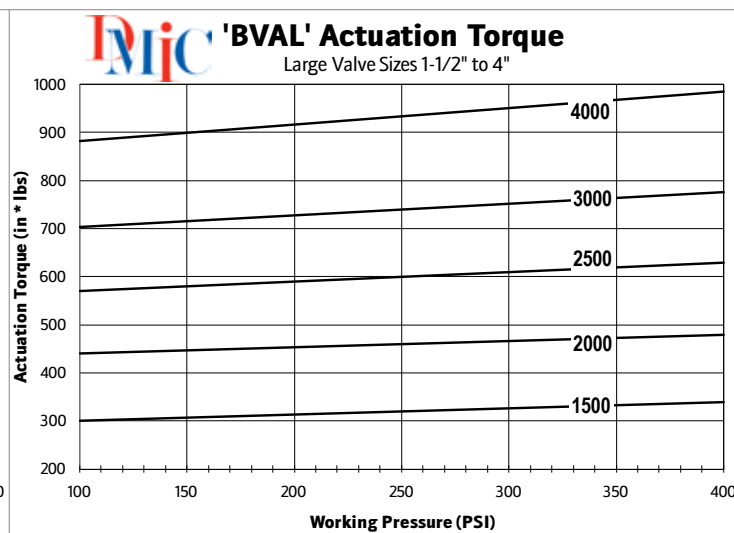
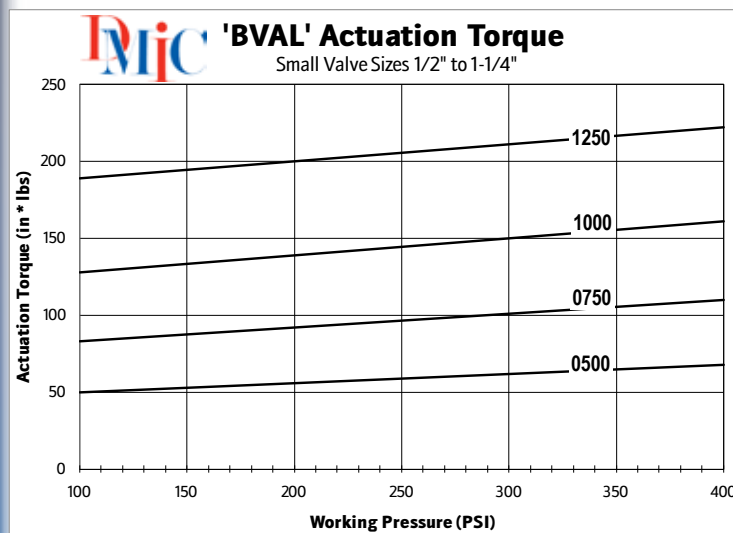
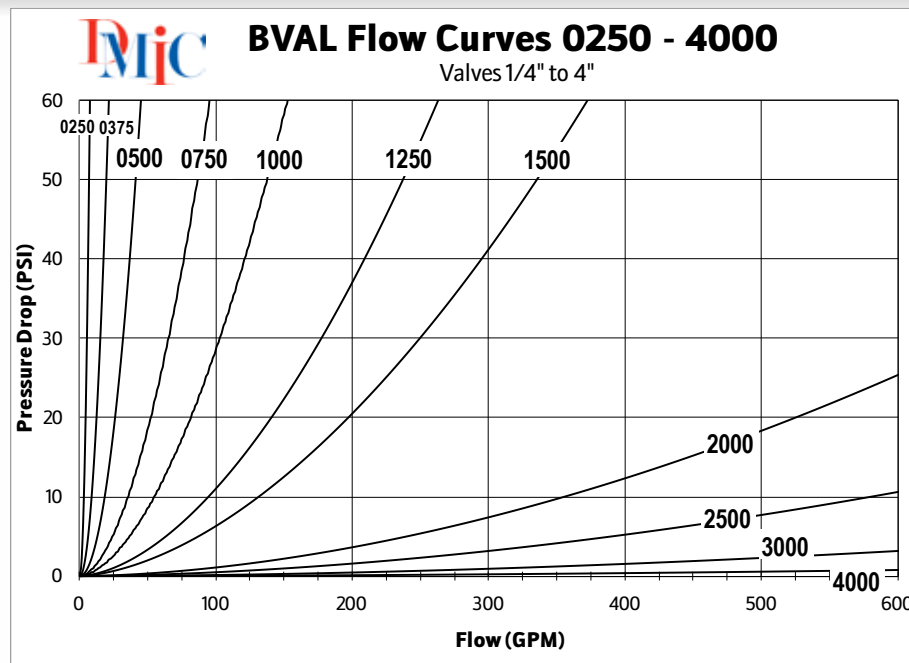
BVAL Round Body, 2 1/2" - 4"
(5" and up call Factory)



BVAL		Common Dimensions			
Part Number	Port Size	Rated Pressure PSI (bar)	Dimensions IN		
			Valve Width B	Valve Bore C	Handle Length D
BVAL-0250****	1/4"	400	1.50	0.38	3.35
BVAL-0375****	3/8"	400	1.50	0.47	3.35
BVAL-0500****	1/2"	400	1.50	0.50	3.35
BVAL-0750****	3/4"	400	1.75	0.75	5.09
BVAL-1000****	1"	400	2.00	.97	5.09
BVAL-1250****	1 1/4"	400	2.75	1.25	6.81
BVAL-1500****	1 1/2"	400	3.25	1.50	6.81
BVAL-2000****	2"	400	4.00	2.00	6.81
BVAL-2500****	2 1/2"	400	5.00	2.56	8.61
BVAL-3000****	3"	400	6.00	3.15	8.61
BVAL-4000****	4"	400	7.00	3.94	8.61

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Flow Characteristic and Actuation Torque Curves



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