

## TWO - WAY VALVES/THREADED CONNECTORS

- High Pressure Hydraulic Ball Valves .....V2
- Valve Features / Design .....V3
- Block Body High Pressure 1/8" - 1 1/2" .....V4-5
- Forged Body High Pressure 1 1/4" - 2" .....V6-7
- Block Body Medium Duty 1/4" - 1 1/2" .....V8
- High Pressure Port Adaptors .....V9
- 12,000 PSI Series Valves 1/4" - 1" .....V10-11

## TWO - WAY VALVES/SAE SPLIT FLANGE CONNECTORS

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- Forged Body Code 61/62 1 1/4" - 2" .....V14-15
- SAE Split / Mating Flange Combination .....V16-17
- Direct Mount Code 61/62 Combination 1/2" - 2" .....V18-19
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- Direct Mount Manifold Style 1/2" - 2" .....V24-25

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- Three and Four Multi-Way Valves 1/4" - 1 1/2" .....V28-29

## MANIFOLD VALVES

- Two-Way, 1/4" - 2" .....V30-31

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- 2BVM Series - Two-Way Valve .....V42
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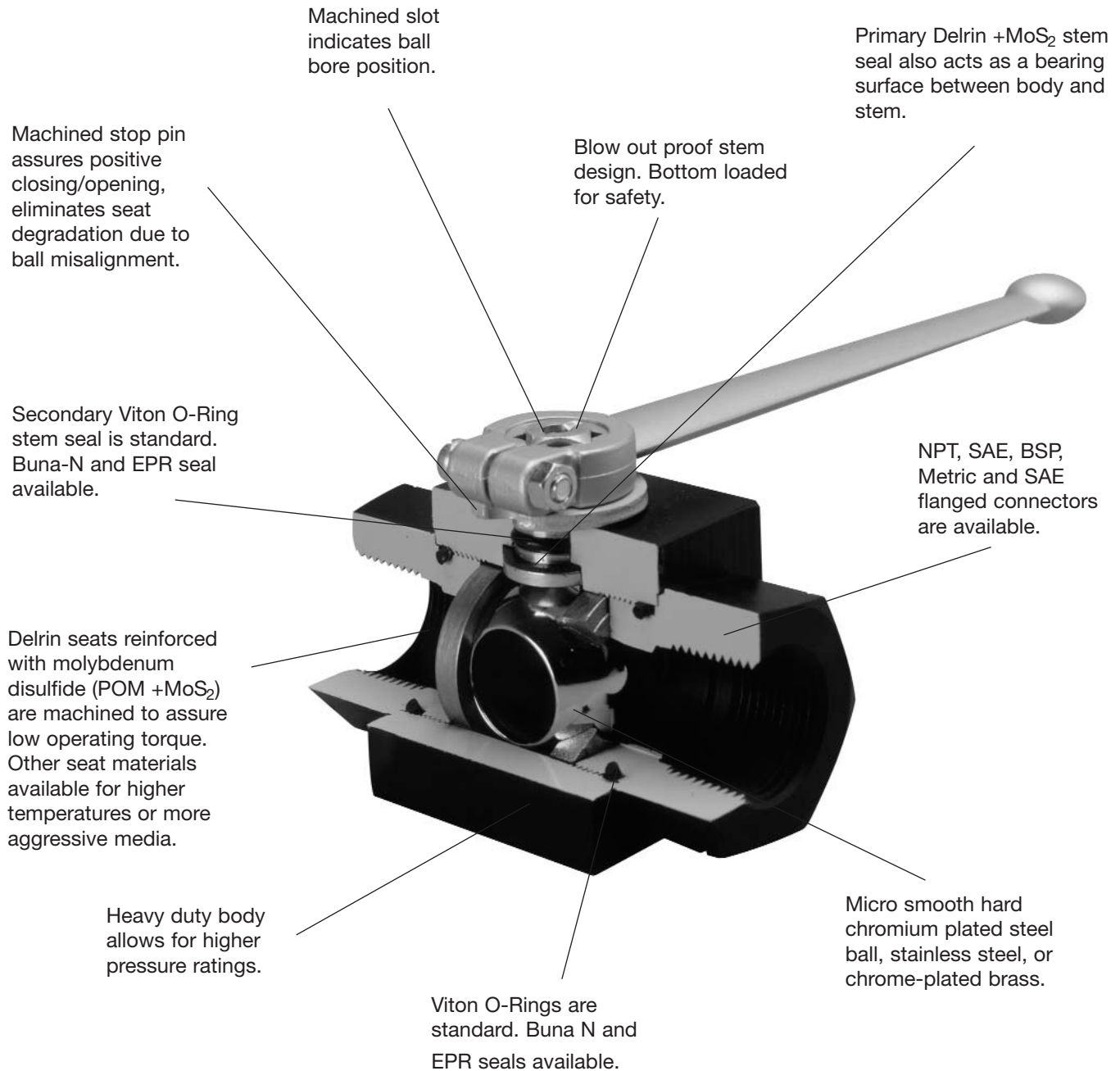
## FLOW CONTROL, NEEDLE AND CHECK VALVES

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- Flow Control Valves - NDRV & FCH Series .....V50-52
- Pressure Compensated Flow Control Valves - PNDRV Series .....V53
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## High Pressure Hydraulic Ball Valves

**FULL FLOW AND POSITIVE SHUT-OFF  
UP TO 12,000 PSI**



Dimensions are for general information only. Due to constant development and updating of technical details, we ask that all critical dimensions be verified by requesting a certified print.

## Features

- Available in carbon, stainless steel or brass.
- 1/4 turn positive operation.
- Depending on size and materials, working pressures up to 12,000 PSI and temperatures up to 930°F can be accommodated.
- No lubrication or maintenance required for the life of the valve.
- All Stauff valves are easily and completely repairable.
- All Stauff valves offer completely bidirectional operation, eliminating any chance of incorrect installation.
- No threads in fluid service to contaminate flow or cause turbulence.
- "Floating Ball" design insures a positive, leak-free seal and automatically compensates for any seat wear or misalignment.
- Hard chromium plated micro-smooth ball greatly reduces friction and seat wear.
- Ball seats are available in a variety of materials to suit your special applications.
- Full size ports on most two-way valves virtually eliminates pressure drop. Cv factor is usually equal to a length of pipe the same length and diameter as the valve.
- All Stauff valves are proof tested to 1.5 times the maximum rated working pressure before shipment from manufacturing facilities.
- Long seal life.

## Available Options

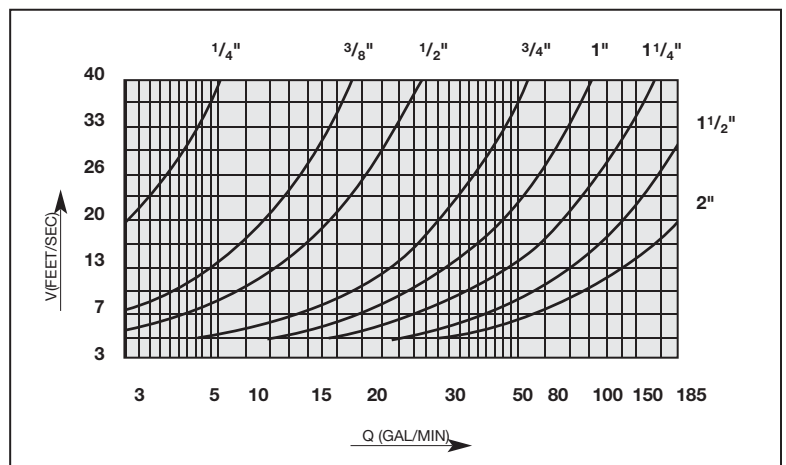
- Locking or detent type handles
- Pneumatic or electric actuator
- Special service seat and seal combinations
- Panel mounted valves
- Tandem mounted valves
- Special threads and connections
- Custom design valves
- Limit/proximity switches

**Contact STAUFF for special requirements.**

**Note: Stauff ball valves are designed for use as on/off devices and must not be used to throttle fluid flow. Use in any position other than fully open or fully closed can lead to rapid deterioration of valve components and possible product failure.**

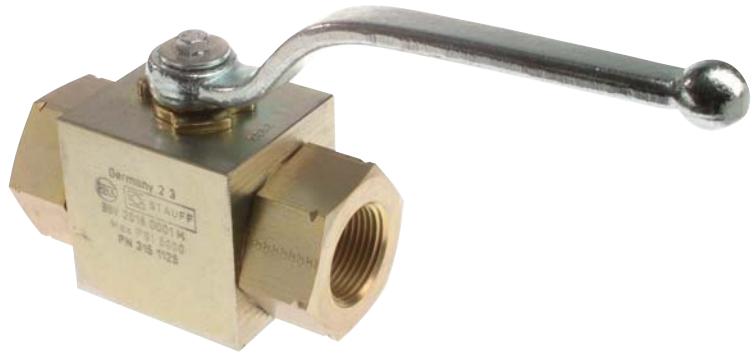
**When operated from the fully closed position at rated operating pressure, manual operation may prove difficult due to opening torque requirements. Please consult factory prior to field application.**

**Valve Selection Chart**



## Specifications

- Block Body, High Pressure Shut-off Valves
- 1/8"-1" Fully Ported-(1 1/4" & 1 1/2" with reduced bore)
- NPT, BSP or SAE O-Ring Connectors
- Delrin +MoS2 Ball Seats
- Viton O-Ring
- Pressure Range: Up to 7250 PSI (500 bar) (depending on material combination and size)
- Standard Carbon Steel Construction
- Standard Temperature Range: -20°F to 212°F (-17°C to 100°C)
- Zinc Plated Body
- Hard Chrome Plated Steel Ball



## Options

- Locking Kits
- Limit Switch
- Actuator Packages Available
- Straight Handles
- Stainless Steel Body
- Stainless Steel Ball and Stem
- Special seat and "O"-Ring materials available for higher temperatures or more aggressive media.

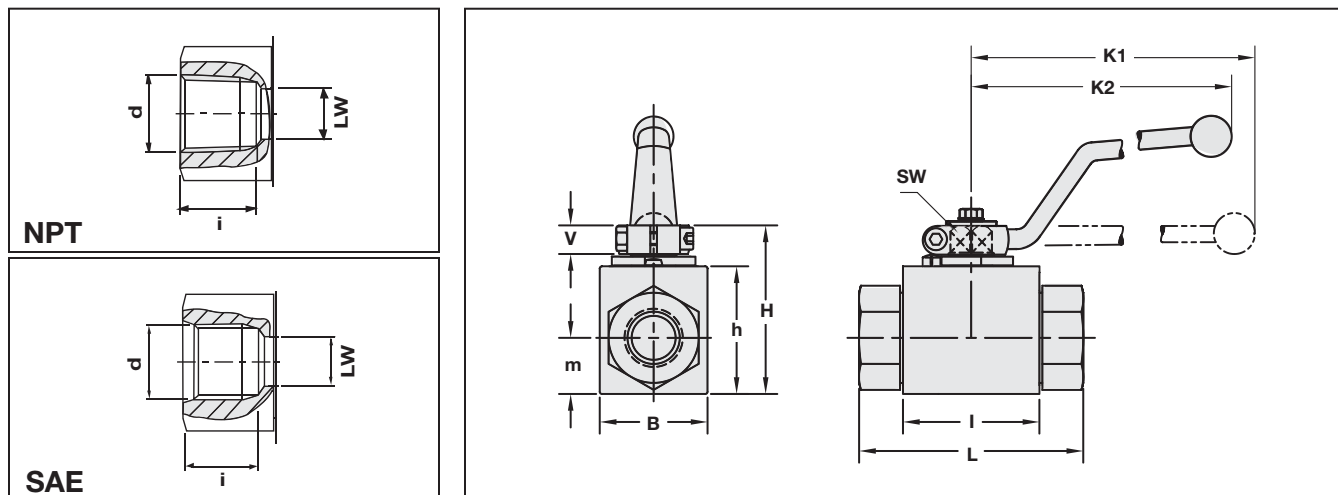
## Technical Information

Item Number	Quantity	Description
1	1	Housing
2	1	Ball
3*	2	Seat
4*	2	Connector O-Ring
5	2	Connector
6	1	Stop Pin
7	1	Stem
8*	1	Thrust Ring
9*	1	Stem O-Ring
10	1	Cam Plate
11	1	Snap Ring
12	1	Handle
13	1	Stem Screw
14	1	Flow Indicator

\*Included in Seal Kit

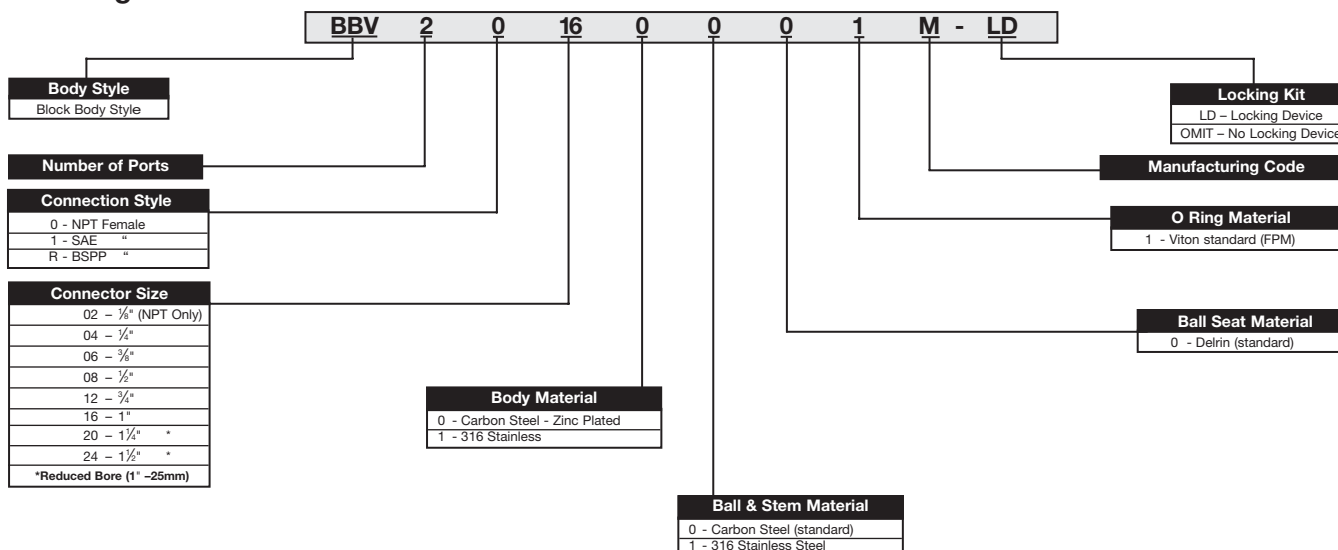
Size	Part Number	Maximum Working Pressure		Size	Part Number	Maximum Working Pressure			
		PSI	Bar			PSI	Bar		
1/8"	NPT	BBV20020001M	7250 PSI	500	3/4"	NPT	BBV20120001M	5000 PSI	345
	SAE	BBV21020001M	7250 PSI	500		SAE	BBV21120001M	5000 PSI	345
1/4"	NPT	BBV20040001M	7250 PSI	500	1"	NPT	BBV20160001M	5000 PSI	345
	SAE	BBV21040001M	7250 PSI	500		SAE	BBV21160001M	5000 PSI	345
3/8"	NPT	BBV20060001M	7250 PSI	500	1 1/4"	NPT	BBV20200001M	5000 PSI	345
	SAE	BBV21060001M	7250 PSI	500		SAE	BBV21200001M	5000 PSI	345
1/2"	NPT	BBV20080001M	7250 PSI	500	1 1/2"	NPT	BBV20240001M	3600 PSI	250
	SAE	BBV21080001M	7250 PSI	500		SAE	BBV21240001M	3600 PSI	250

## Dimensional Information



Size	d		i		L		LW		I		B	H	h	m	V	SW	K		Weight	
	NPT	SAE	NPT	SAE	NPT	SAE	NPT	SAE	in	mm							in	mm	in	mm
1/8"	1/8-27	-	0.51		2.72		0.24		1.57	1.02	1.85	1.30	0.53	0.43	0.35	9	5.91	4.53	0.50	0.23
			12.95		69.09		6.10		39.88	25.91	46.99	33.02	13.46	10.92	9	150.11	115.06	0.66		
1/4"	1/4-18	3/8-20	0.67	0.55	2.72	2.72	0.24	0.2	1.57	1.02	1.85	1.30	0.53	0.43	0.35	9	5.91	4.53	0.66	0.30
			17.02	13.97	69.09	69.09	6.10	5.08	39.88	25.91	46.99	33.02	13.46	10.92	9	150.11	115.06	0.75		
3/8"	3/8-18	3/8-18	0.69	0.61	3.07	2.83	0.39	0.39	1.69	1.26	2.05	1.50	0.69	0.43	0.35	9	5.91	4.53	1.10	0.50
			17.53	15.49	77.98	71.88	10	10	42.93	32.00	52.07	38.10	17.53	10.92	9	150.11	115.06	1.65		
1/2"	1/2-14	3/4-16	0.98	0.69	4.09	3.27	0.51	0.51	1.89	1.38	2.13	1.57	0.75	0.43	0.35	9	5.91	4.53	1.65	0.75
			24.89	17.53	103.89	83.06	13	13	48.01	35.05	54.10	39.88	19.05	10.92	9	150.11	115.06	3.65		
3/4"	3/4-14	1 1/8-12	0.91	0.91	4.02	3.74	0.79	0.79	2.44	1.93	2.95	2.24	0.96	0.55	0.55	14	7.87	6.30	3.65	1.66
			23.11	23.11	102.11	95.00	20	20	61.98	49.02	74.93	56.90	24.38	13.97	14	199.90	160.02	5.06		
1"	1-1 1/2	1 1/8-12	1.09	0.91	4.69	4.45	0.98	0.98	2.60	2.28	3.27	2.56	1.16	0.55	0.55	14	7.87	6.30	5.06	2.30
			27.69	23.11	119.13	113.03	25	25	66.04	57.91	83.06	65.02	29.46	13.97	14	199.90	160.02	5.50		
1 1/4"	1 1/4-11 1/2	1 1/8-12	1.10	0.91	5.10	5.10	0.98	0.98	2.60	2.28	3.27	2.56	1.16	0.55	0.55	14	7.87	6.30	5.50	2.50
			27.94	23.11	129.54	129.54	25	25	66.04	57.91	83.06	65.02	29.46	13.97	14	199.90	160.02	5.75		
1 1/2"	1 1/2-11 1/2	1 1/8-12	1.19	0.91	5.20	5.20	0.98	0.98	2.60	2.28	3.27	2.56	1.16	0.55	0.55	14	7.87	6.30	5.75	2.61
			30.23	23.11	132.08	132.08	25	25	66.04	57.91	83.06	65.02	29.46	13.97	14	199.90	160.02			

## Ordering Information



## Specifications

- Forged Body, High Pressure Valves
- 1¼" – 2" Fully Ported
- NPT, BSP or SAE O-Ring Connections
- Delrin +MoS2 Ball Seats
- Viton O-Rings
- Steel Handle
- Pressure Range: Up to 5000 PSI (345 bar)
- Carbon Steel Construction
- Temperature Range: -20°F to 212°F (-28°C to 100°C)
- Zinc Plated Body

## Options

- Locking Kits
- Limit Switches
- Stainless Steel Body
- Stainless Steel Ball and Stem
- Straight Handles
- Actuator Packages Available
- Special seat and "O"-Ring materials available for higher temperatures or more aggressive media.



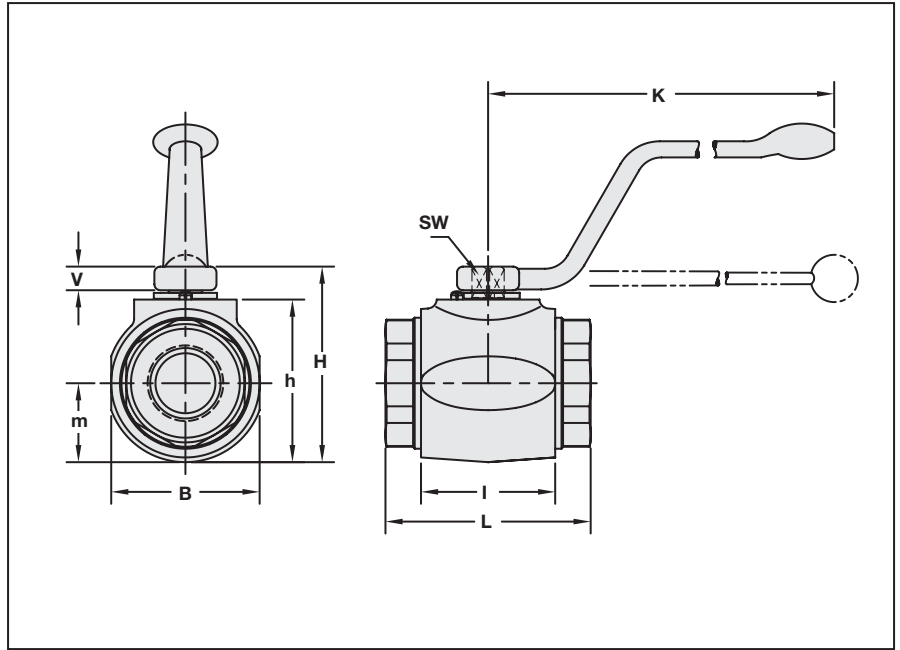
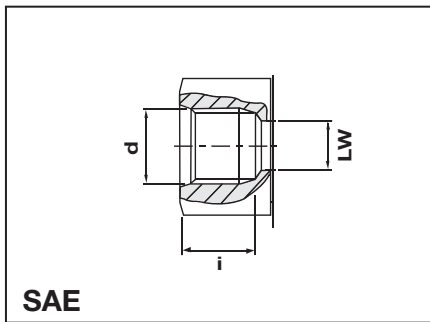
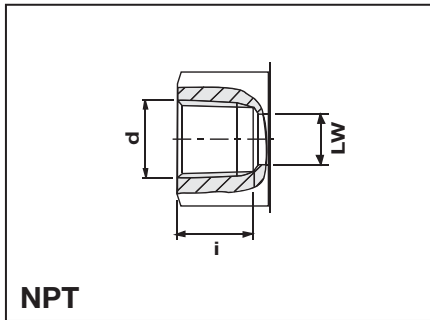
## Technical Information

Item Number	Quantity	Description
1	1	Housing
2	1	Ball
3*	2	Seat
4*	2	Connector O-Ring
5	2	Connector
6	1	Stop Pin
7	1	Stem
8*	1	Thrust Ring
9*	1	Stem O-Ring
10	1	Cam Plate
11	1	Snap Ring
12	1	Steel Handle
13	1	Screw
14	1	Lock Washer
15	1	Washer

\*Included in Seal Kit

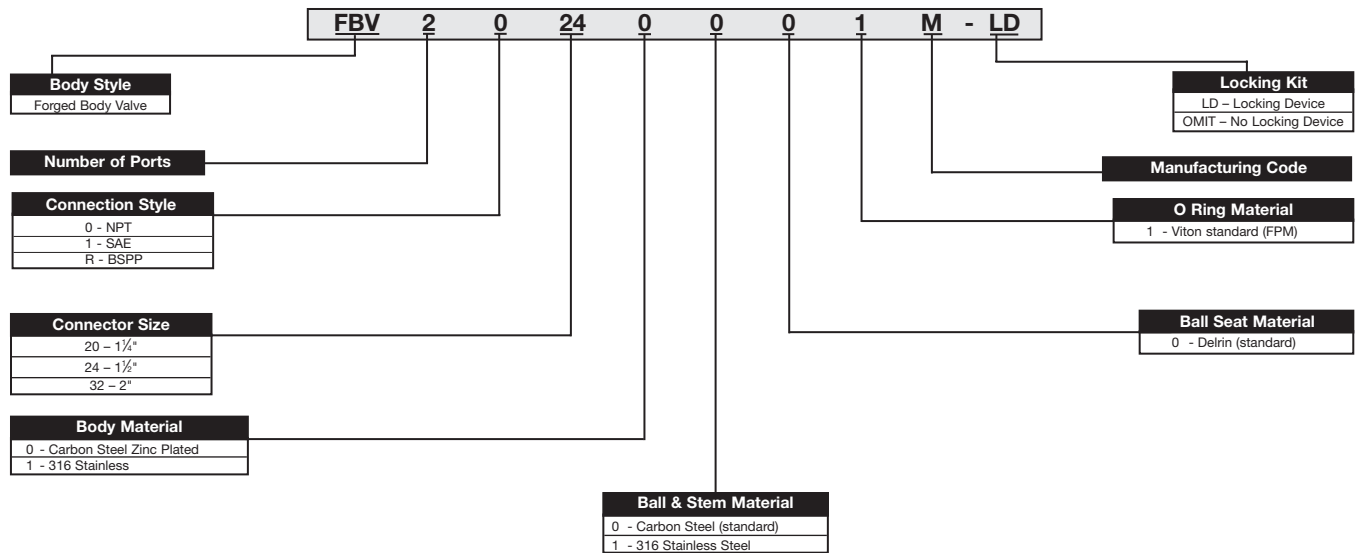
Size	Part Number	Maximum Working Pressure		
		PSI	Bar	
1¼"	NPT	FBV20200001M	5000 PSI	345
	SAE	FBV21200001M	5000 PSI	345
1½"	NPT	FBV20240001M	5000 PSI	345
	SAE	FBV21240001M	5000 PSI	345
2"	NPT	FBV20320001M	5000 PSI	345
	SAE	FBV21320001M	5000 PSI	345

## Dimensional Information



Size	d NPT	d SAE	i NPT	i SAE	L NPT	L SAE	LW NPT	LW SAE	I	B	H	h	m	V	SW	K	Weight
			in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	lbs kg
1¼"	1¼-11½	1½-12	1.11 28.19	0.91 23.11	4.72 119.89	4.37 111.00	1.26 32.00	1.18 29.97	3.15 80.01	3.19 81.03	4.21 106.93	3.39 86.11	1.59 40.39	0.65 16.51	.66 17	11.81 300	8.04 3.65
1½"	1½-11½	1½-12	1.1 27.94	0.91 23.11	5.12 130.05	5.12 130.05	1.50 38.10	1.50 38.10	3.35 85.09	3.94 100.08	4.88 123.95	4.06 103.12	1.97 50.04	0.65 16.51	.66 17	11.81 300	13.00 5.91
2"	2-11½	2½-12	1.19 30.23	0.91 23.11	5.51 139.95	5.51 139.95	1.89 48.01	1.77 44.96	3.94 100.08	4.65 118.11	5.43 137.92	4.61 117.09	2.32 58.93	0.65 16.51	.66 17	11.81 300	19.00 8.64

## Ordering Information

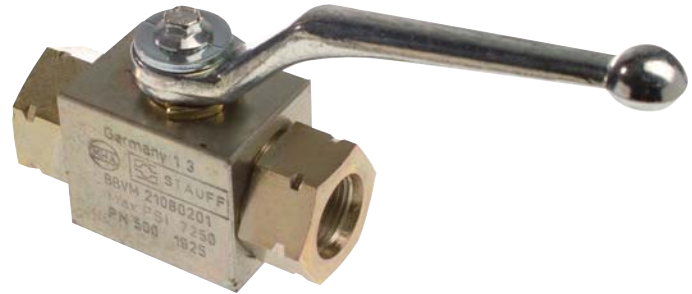


## Specifications

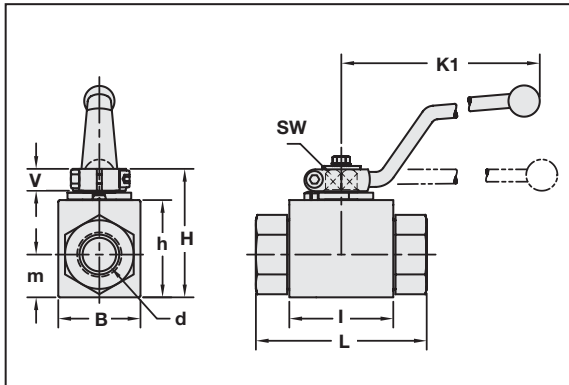
- Block Body, Medium Duty
- 50,000 Cycle Seal Life
- NPT, BSP and SAE Ports Available
- 1/4" - 1 1/2" Sizes Available
- Fully Ported
- Carbon Steel Body
- Chrome Plated Brass Ball
- Temperature Range: -14°F to 212°F (-10°C to 100°C) (depending on material combinations)

## Options

- Locking Kits
- Limit Switches
- Straight Handles



## Dimensional Information



See Page V4 for Pressure Rating

Part #	Size	d NPT	d SAE	L NPT	L SAE	I	B	H	h	m	V	SW	K <sub>1</sub>	Weight		Max. Working Pressure	
														lb	kg	PSI	Bar
BBVM 20040201 BBVM 21040201	1/4"	1/8-18	7/16-20	2.72 69.09	2.72 69.09	1.57 39.88	1.02 25.91	1.85 46.99	1.30 33.02	0.53 13.46	0.43 10.92	0.35 9	4.53 115.06	0.66 0.30	7250 500		
BBVM 20060201 BBVM 21060201	3/8"	1/8-18	3/8-18	3.07 77.98	2.83 71.88	1.69 42.93	1.26 32.00	2.05 52.07	1.50 38.10	0.69 17.53	0.43 10.92	0.35 9	4.53 115.06	1.10 0.50	7250 500		
BBVM 20080201 BBVM 21080201	1/2"	1/4-14	3/8-16	4.09 103.89	3.27 83.06	1.89 48.01	1.38 35.05	2.13 54.10	1.57 39.88	0.75 19.05	0.55 14	0.35 9	4.53 115.06	1.65 0.75	7250 500		
BBVM 20120201 BBVM 21120201	3/4"	3/8-14	1/2-12	4.02 102.11	3.74 95.00	2.44 61.98	1.93 49.02	2.95 74.93	2.24 56.90	0.90 22.86	0.55 14	0.55 14	6.81 172.97	3.65 1.66	5000 345		
BBVM 20160201 BBVM 21160201	1"	1-11 1/2	1 1/8-12	4.69 119.13	4.45 113.03	2.60 66.04	2.28 57.91	3.27 83	2.56 65	1.16 29.46	0.55 14	0.55 14	7.87 199.90	5.06 2.30	5000 345		
BBVM 20200201 BBVM 21200201	1 1/4"	1 1/4-11 1/2	1 1/8-12	5.10 130	5.10 130	2.60 66	2.28 58	3.27 83	2.56 65	1.16 29.5	0.55 14	0.55 14	7.87 200	5.5 2.5	3600 250		
BBVM 20240201 BBVM 21240201	1 1/2"	1 1/4-11 1/2	1 1/8-12	5.2 82	5.2 132	2.60 66	2.28 58	3.27 83	2.56 65	1.16 29.5	0.55 14	0.55 14	7.87 200	5.75 2.6	3600 250		

## Ordering Information

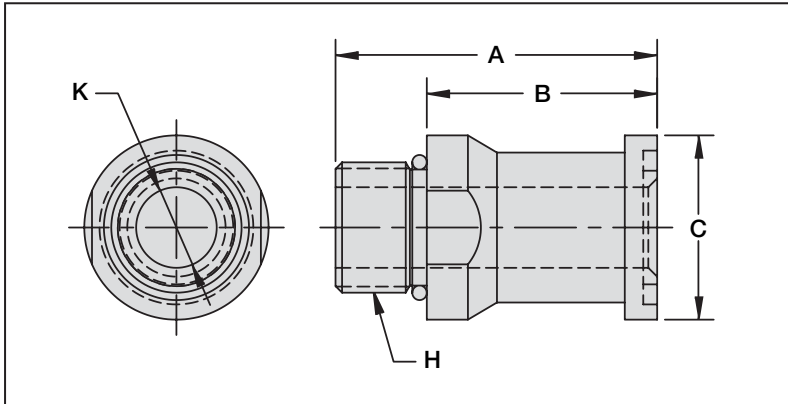
BBVM 2 0 08 0 2 0 1 - LD

<b>Product Type</b> Block Body Valve-Medium Pressure	<b>Connector Size</b> 04 - 1/4" 06 - 3/8" 08 - 1/2" 12 - 3/4" 16 - 1" * 20 - 1 1/4 * 24 - 1 1/2 <small>* Reduced Bore(1")</small>	<b>Locking Kit</b> LD - Locking Device OMIT - No Locking Device
<b>Number of Ports</b>		<b>O Ring Material</b> 1 - Viton
<b>Thread Type</b> 0 - NPT 1 - SAE R - BSP		<b>Seat Material</b> 0 - Delrin
<b>Body Material</b> 0 - Carbon Steel Zinc Plated		<b>Ball Material</b> 2 - Brass-Chrome Plated

\* Reduced Bore



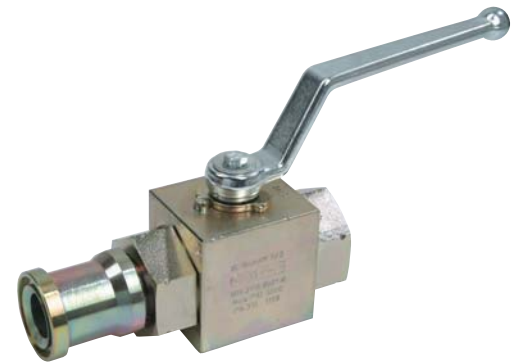
## Split Flange End Connection Adaptor



Use these Carbon Steel (Zinc Plated) adaptors to extend the application range of Stauff SAE Threaded Valves by using High Pressure Adaptors on one or both ports. Maximum pressure to 7250 PSI (500 bar).

Part Number	Tube O.D.	Flange Size		A	B	C	H Thread	K
		Code 61	Code 62					
				in / mm	in / mm	in / mm		in / mm
302-12-12	3/4"	3/4"		2.48 / 62.99	1.88 / 47.75	1.50 / 38.10	1 1/16 -12	0.66 / 16.76
302-16-16	1"	1"		2.48 / 62.99	1.88 / 47.75	1.75 / 44.45	1 1/16 -12	0.88 / 22.35
302-20-20	1 1/4"	1 1/4"		3.00 / 76.20	2.4 / 60.96	2.00 / 50.80	1 1/8 -12	1.1 / 27.94
302-24-24	1 1/2"	1 1/2"		3.01 / 76.45	2.41 / 61.21	2.38 / 60.45	1 1/8 -12	1.3 / 33.02
302-32-32	2"	2"		3.50 / 88.90	2.4 / 60.96	2.81 / 71.37	2 1/2 -12	1.8 / 45.72
602-12-12	3/4"		3/4"	2.48 / 62.99	1.88 / 47.75	1.62 / 41.15	1 1/16 -12	0.66 / 16.76
602-16-16	1"		1"	2.48 / 62.99	1.88 / 47.75	1.87 / 47.50	1 1/16 -12	0.88 / 22.35
602-20-20	1 1/4"		1 1/4"	2.82 / 71.62	2.23 / 56.64	2.12 / 53.85	1 1/8 -12	1.1 / 27.94
602-24-24	1 1/2"		1 1/2"	3.19 / 81.03	2.41 / 61.21	2.50 / 63.50	1 1/8 -12	1.3 / 33.02
602-32-32	2"		2"	3.60 / 91.44	3 / 76.20	3.12 / 79.25	2 1/2 -12	1.8 / 45.72

\*Note: Pressure rating of valve determines assembly pressure rating.



Step sizes are available. Consult factory for information.

## Specifications

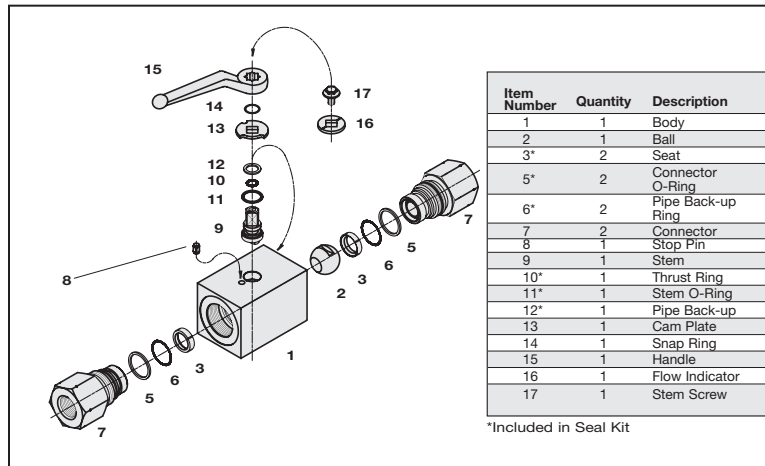
- 12,000 PSI (825 bar) Working Pressure
- Two-Way Valves
- 1/4" – 1" Fully Ported
- NPT and SAE Threaded Connections
- Temperature Range: -30°F to 212°F (-34°C to 100°C)
- Peek Seat Material
- Carbon Steel
- Zinc Plated Body

## Options

- Stainless Steel Construction
- Limit Switches
- Actuator Packages Available

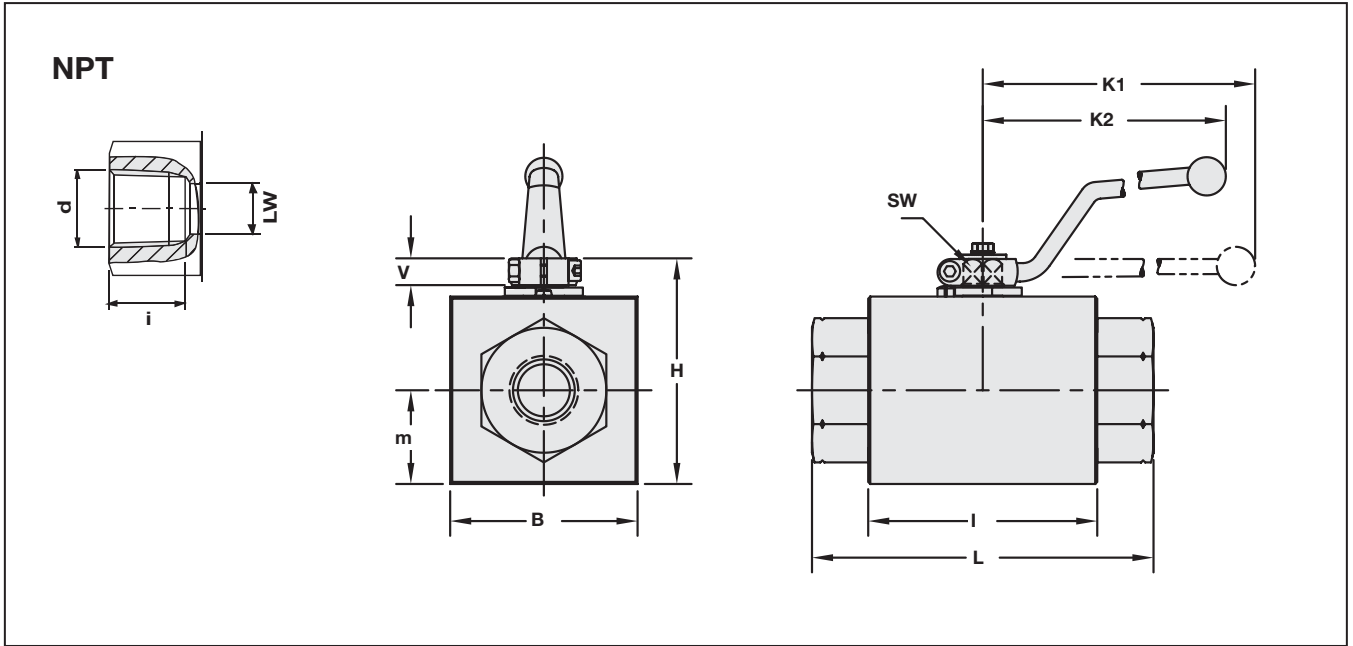


## Technical Information



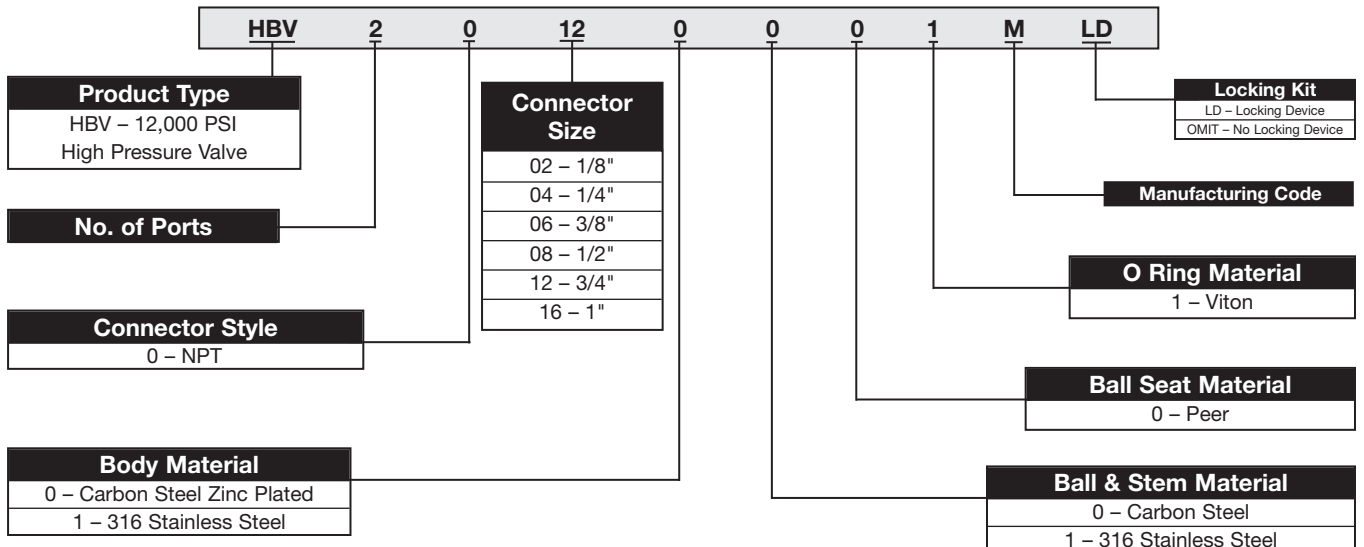
Size		Part Number	Maximum Working Pressure	
			PSI	Bar
1/4"	NPT	HBV20040001M	12,000 PSI	825
3/8"	NPT	HBV20060001M	12,000 PSI	825
1/2"	NPT	HBV20080001M	12,000 PSI	825
3/4"	NPT	HBV20120001M	12,000 PSI	825
1"	NPT	HBV20160001M	12,000 PSI	825

## Dimensional Information



Size	d NPT	i NPT	LW		L		I		B		H		m		V		SW		K <sub>1</sub>		K <sub>2</sub>		Weight	
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
1/4"	1/4-18	0.67	6	0.24	130	5.12	76	2.99	50	1.97	64	2.52	25	0.98	11	0.43	9	0.35	150	5.91	115	4.53	1.3	2.86
3/8"	3/8-18	0.69	10	0.39	130	5.12	76	2.99	50	1.97	64	2.52	25	0.98	11	0.43	9	0.35	150	5.91	115	4.53	1.3	2.86
1/2"	1/2-14	0.98	13	0.51	130	5.12	76	2.99	50	1.97	64	2.52	25	0.98	11	0.43	9	0.35	150	5.91	115	4.53	1.3	2.86
3/4"	3/4-14	0.91	20	0.79	161	6.34	111	4.37	90	3.54	108	4.25	45	1.77	14	0.55	14	0.55	200	7.87	160	6.30	5.6	12.32
1"	1-11/4	1.09	25	0.98	164	6.46	111	4.37	90	3.54	108	4.25	45	1.77	14	0.55	14	0.55	1200	7.87	160	6.30	5.6	12.32

## Ordering Information

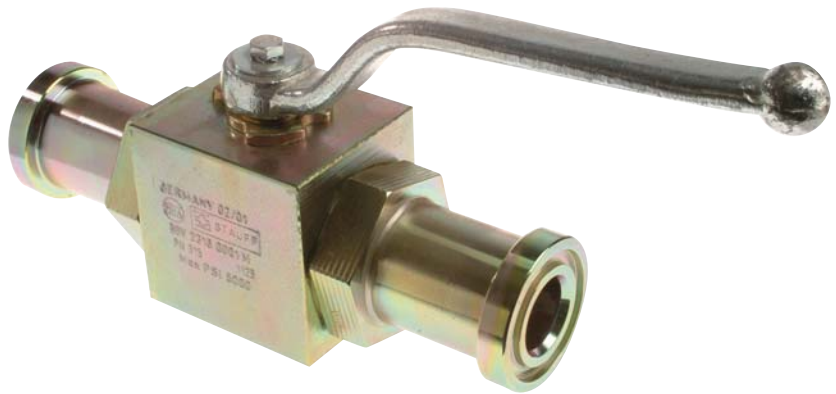


## Specifications

- 1/2", 3/4" & 1" Block Body Style
- SAE Code 61 & 62 (SAE Standard J518)
- Split Flange Connectors
- Delrin +MoS2 Ball Seats
- Viton O-Rings
- Carbon Steel Construction Standard;
- Temperature Range: -14°F to 212°F (-10°C to 100°C)
- Zinc Plated Body

## Options

- Split Flange Kits Available  
SF Series for Both Code 61 & Code 62 (see page A39)
- Stainless Steel
- Locking Kits
- Limit Switches
- Actuator Packages Available
- Straight Handles
- Special Seat and "O"-Ring Materials Available for Higher Temperatures or Aggressive Media



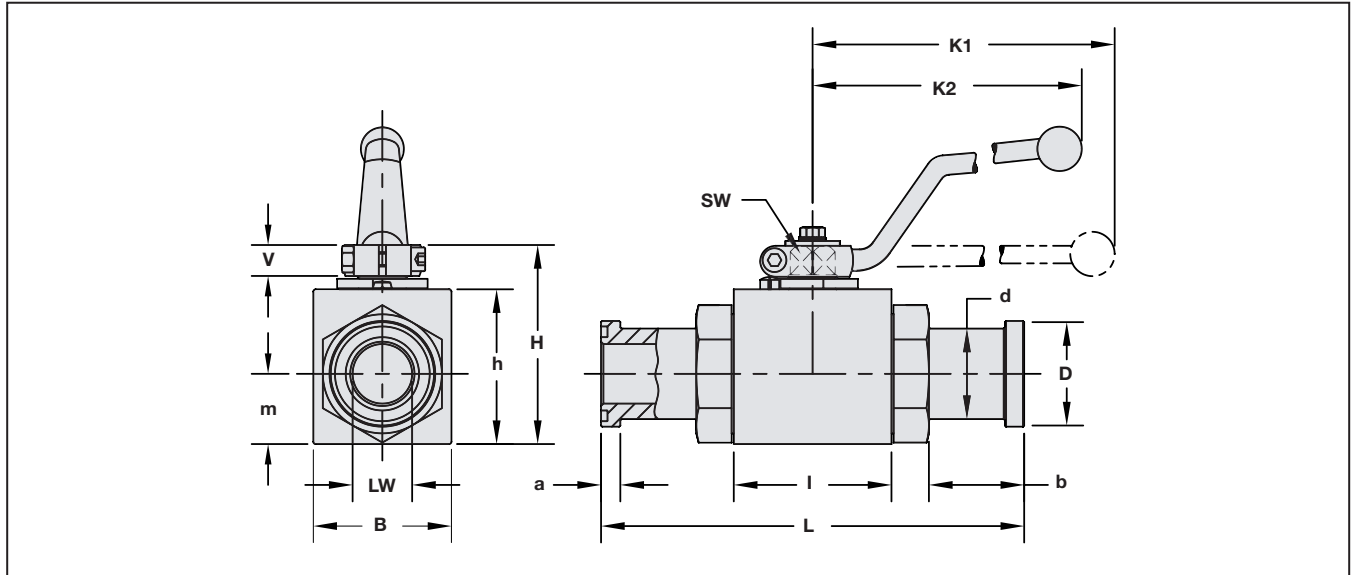
## Technical Information

Item Number	Quantity	Description
1	1	Housing
2	1	Ball
3*	2	Seat
4*	2	Connector O-Ring
5	2	Connector
6	1	Stop Pin
7	1	Stem
8*	1	Thrust Ring
9*	1	Stem O-Ring
10	1	Cam Plate
11	1	Snap Ring
12	1	Handle
13	1	Stem Screw
14	1	Flow Indicator

\*Included in Seal Kit

Size	Code	Part Number Without Flanges	Part Number With Flanges	Maximum Working Pressure	
				PSI	Bar
1/2"	CODE 61	BBV22080001M	BBV22080001M/SF	5000	345
	CODE 62	BBV23080001M	BBV23080001M/SF	6000	420
3/4"	CODE 61	BBV22120001M	BBV22120001M/SF	5000	345
	CODE 62	BBV23120001M	BBV23120001M/SF	5000	345
1"	CODE 61	BBV22160001M	BBV22160001M/SF	5000	345
	CODE 62	BBV23160001M	BBV23160001M/SF	5000	345

## Dimensional Information



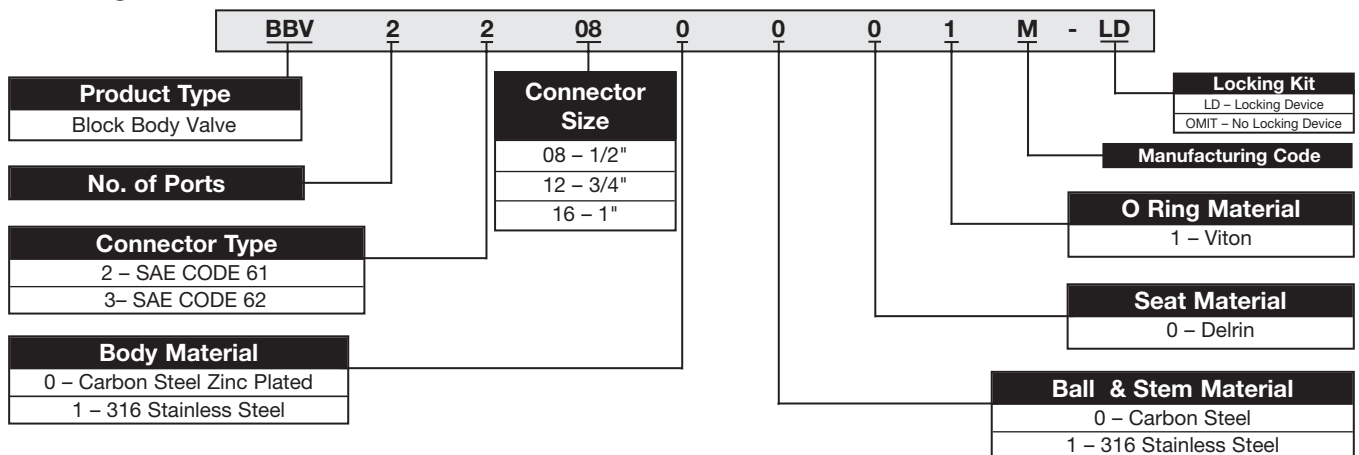
### Code 61

Size	LW	L	I	B	H	h	m	V	SW	K1	K2	D	d	a	b	Weight	
	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	lbs kg
1/2"	0.51 12.95	5.94 150.88	1.89 48.01	1.38 35.05	2.13 54.10	1.57 39.88	0.75 19.05	0.43 10.92	0.35 9	5.91 150.11	4.53 115.06	1.19 30.23	0.94 23.88	0.27 6.86	1.73 43.94	2.0 0.91	
3/4"	0.75 19.05	6.38 162.05	2.44 61.98	1.93 49.02	2.95 74.93	2.24 56.90	0.96 24.38	0.55 13.97	0.55 14	7.87 199.90	6.30 160.02	1.50 38.10	1.25 31.75	0.27 6.86	1.67 42.82	3.5 1.59	
1"	0.98 24.89	7.01 178.05	2.60 66.04	2.28 57.91	3.27 83.06	2.56 65.02	1.16 29.46	0.55 13.97	0.55 14	7.87 199.90	6.30 160.02	1.75 44.45	1.50 38.10	0.32 8.13	1.57 39.88	5.0 2.27	

### Code 62

Size	LW	L	I	B	H	h	m	V	SW	K1	K2	D	d	a	b	Weight	
	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	lbs kg
1/2"	0.51 12.95	5.94 150.88	1.89 48.01	1.38 35.05	2.13 54.10	1.57 39.88	0.75 19.05	0.43 10.92	0.35 9	5.91 150.11	4.53 115.06	1.25 31.75	0.94 23.88	0.31 7.87	1.57 39.88	2.0 0.91	
3/4"	0.75 19.05	6.85 162.05	2.44 61.98	1.93 49.02	2.95 74.93	2.24 56.90	0.96 24.38	0.55 13.97	0.55 14	7.87 199.90	6.30 160.02	1.63 41.40	1.25 31.75	0.35 8.89	1.85 46.99	3.5 1.59	
1"	0.87 24.89	7.80 178.05	2.60 66.04	2.28 57.91	3.27 83.06	2.56 65.02	1.16 29.46	0.55 13.97	0.55 14	7.87 199.90	6.30 160.02	1.87 47.50	1.50 38.10	0.38 9.65	1.97 50.04	5.0 2.27	

## Ordering Information



## Specifications

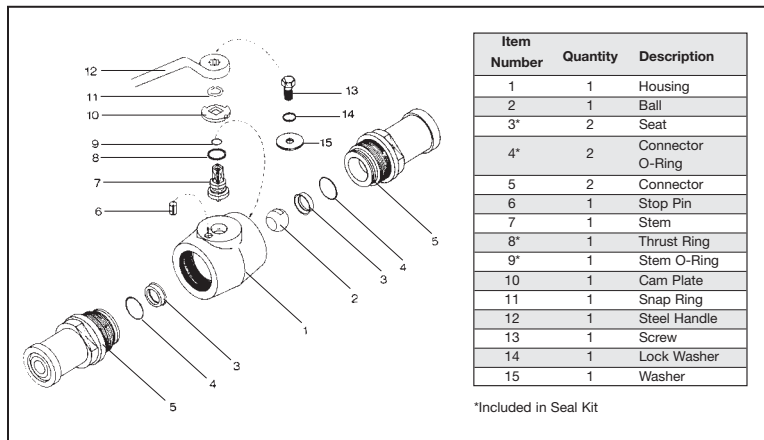
- 1¼", 1½" & 2" Forged Body Style
- Pressure Range: Up to 6000 PSI (400 bar)
- SAE Code 61 & 62 (SAE Standard J518)
- Split Flange Connectors
- Delrin +MoS2 Ball Seats
- Viton O-Rings
- Carbon Steel Construction
- Steel Handle
- Temperature Range: -20°F to 212°F (-28°C to 100°C)
- Zinc Plated Body

## Options

- Split Flange Kits Available  
SF Series for Both Code 61 & Code 62  
(see page A39)
- Straight Handle
- Locking Kits
- Limit Switches
- Actuator Packages Available
- Stainless Steel
- Special Seat and "O"-Ring Materials  
Available for Higher Temperatures or More  
Aggressive Media

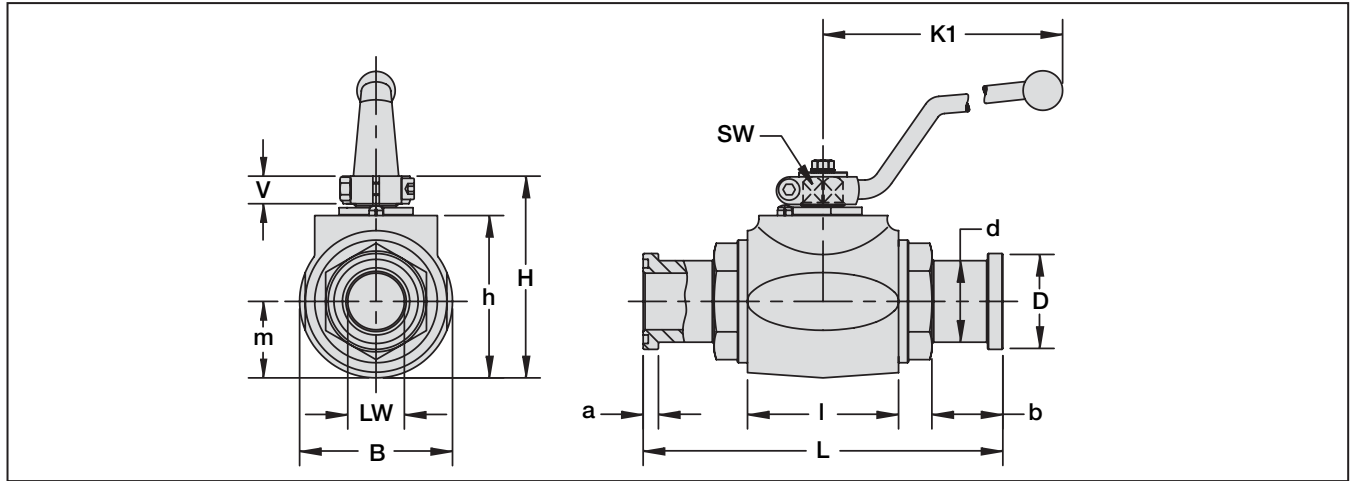


## Technical Information



Size	Part Number Without Flanges	Part Number With Flanges	Maximum Working Pressure	
			PSI	Bar
1¼"	CODE 61	FBV22200001M	3000 PSI	210
	CODE 62	FBV23200001M	6000 PSI	420
1½"	CODE 61	FBV22240001M	3000 PSI	210
	CODE 62	FBV23240001M	6000 PSI	420
2"	CODE 61	FBV22320001M	3000 PSI	210
	CODE 62	FBV23320001M	6000 PSI	420

## Dimensional Information



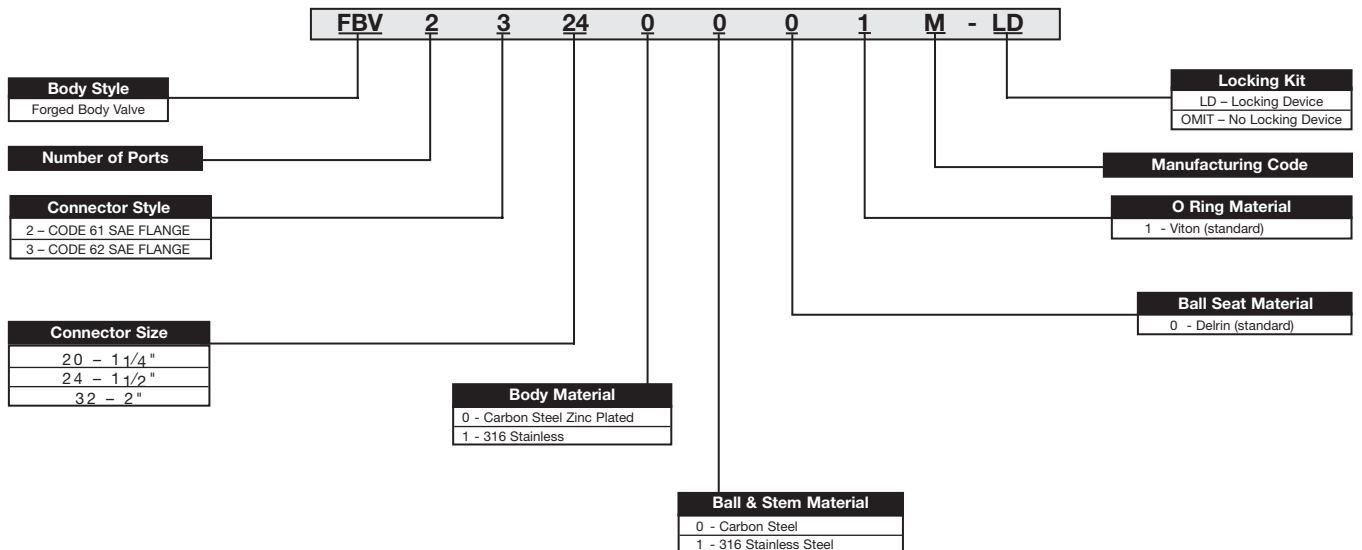
### Code 61

Size	LW	L	I	B	H	h	m	V	SW	K1	D	d	a	b	Weight	
	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	lbs	kg
1 1/4"	1.18 / 29.97	7.50 / 190.50	3.15 / 80.01	3.19 / 81.03	4.21 / 106.93	3.39 / 86.11	1.59 / 40.39	0.65 / 16.51	0.67 / 17	11.81 / 299.97	2.00 / 50.80	1.70 / 43.18	0.32 / 8.13	1.38 / 35.05	8	3.64
1 1/2"	1.42 / 36.07	9.09 / 230.89	3.35 / 85.09	3.94 / 100.08	4.88 / 123.95	4.06 / 103.12	1.97 / 50.04	0.65 / 16.51	0.67 / 17	11.81 / 299.97	2.37 / 60.20	1.98 / 50.29	0.32 / 8.13	2.09 / 53.09	14	6.36
2"	1.89 / 48.01	9.13 / 231.90	3.94 / 100.08	4.65 / 118.11	5.43 / 137.92	4.61 / 117.09	2.32 / 58.93	0.65 / 16.51	0.67 / 17	11.81 / 299.97	2.81 / 71.37	2.45 / 62.23	0.38 / 8.13	1.81 / 45.97	20	9.09

### Code 62

Size	LW	L	I	B	H	h	m	V	SW	K1	D	d	a	b	Weight	
	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	lbs	kg
1 1/4"	1.06 / 26.92	8.78 / 223.01	3.15 / 80.01	3.19 / 81.03	4.21 / 106.93	3.39 / 86.11	1.59 / 40.39	0.65 / 16.51	0.67 / 17	11.81 / 299.97	2.13 / 54.10	1.73 / 43.94	0.41 / 10.41	2.01 / 51.05	8.5	3.86
1 1/2"	1.26 / 32.00	11.06 / 280.92	3.35 / 85.09	3.94 / 100.08	4.88 / 123.95	4.06 / 103.12	1.97 / 50.04	0.65 / 16.51	0.67 / 17	11.81 / 299.97	2.50 / 63.50	2.01 / 51.05	0.50 / 12.70	3.07 / 77.98	15	6.82
2"	1.77 / 44.96	12.44 / 315.98	3.94 / 100.08	4.65 / 118.11	5.43 / 137.92	4.61 / 117.09	2.32 / 58.93	0.65 / 16.51	0.67 / 17	11.81 / 299.97	3.13 / 79.50	2.65 / 67.31	0.50 / 12.70	3.46 / 87.88	21	9.55

## Ordering Information





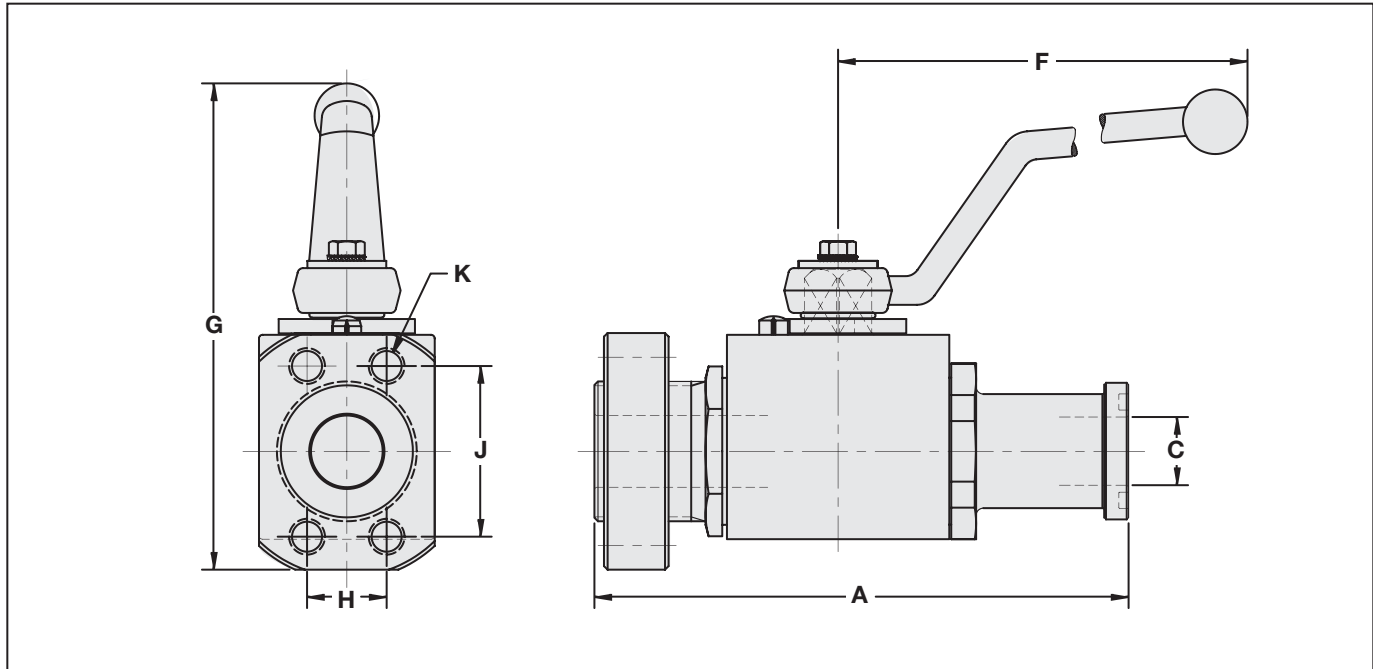
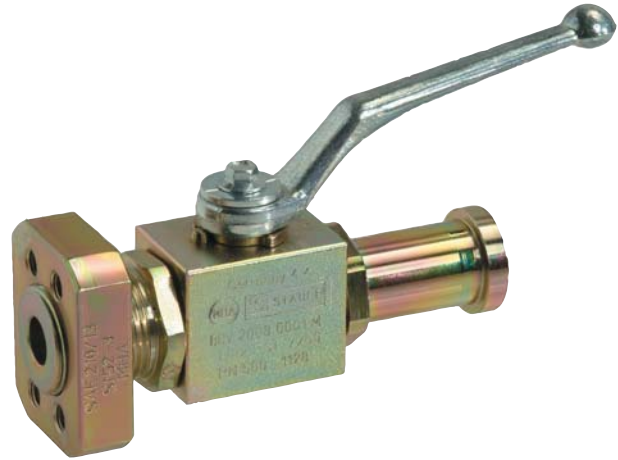
## SAE Split Flange / Mating Flange Combination

### Specifications

- Combination SAE 4 Bolt and SAE Split Flange
- 1/2", 3/4" and 1" Block Body Style
- SAE Code 61 and 62
- Delrin and MOS2 Ball Seats
- Viton O-Rings
- Carbon Steel Construction Standard;  
(other material available to order)
- Temperature Range - 14°F to 212°F  
(-10°C to 100°C)
- Zinc Plated Body

### Options

- All Standard Options Available. Contact Factory for Details



	Size	Part Number	A		C		F		G		H		J		K tap
			mm	in	mm	in	mm	in	mm	in	mm	in			
Code 61	1/2"	BBV2H080001M	136	<b>5.35</b>	13	<b>0.51</b>	115	<b>4.53</b>	99	<b>3.90</b>	17.5	<b>0.69</b>	38.1	<b>1.50</b>	UN-2B
	3/4"	BBV2H120001M	149	<b>5.87</b>	19	<b>0.75</b>	170	<b>6.69</b>	136	<b>5.35</b>	22.2	<b>0.87</b>	47.6	<b>1.87</b>	3/8-16
	1"	BBV2H160001M	163	<b>6.42</b>	25	<b>0.98</b>	170	<b>6.69</b>	141	<b>5.55</b>	26.2	<b>1.03</b>	52.4	<b>2.06</b>	3/8-16
Code 62	1/2"	BBV2T080001M	136	<b>5.35</b>	13	<b>0.51</b>	115	<b>4.53</b>	99	<b>3.90</b>	18.2	<b>0.72</b>	40.5	<b>1.59</b>	5/16-18
	3/4"	BBV2T120001M	155	<b>6.10</b>	19	<b>0.75</b>	170	<b>6.69</b>	138	<b>5.43</b>	23.8	<b>0.94</b>	50.8	<b>2.00</b>	3/8-16
	1"	BBV2T160001M	173	<b>6.81</b>	25	<b>0.98</b>	170	<b>6.69</b>	146	<b>5.75</b>	27.8	<b>1.09</b>	57.2	<b>2.25</b>	7/16-14

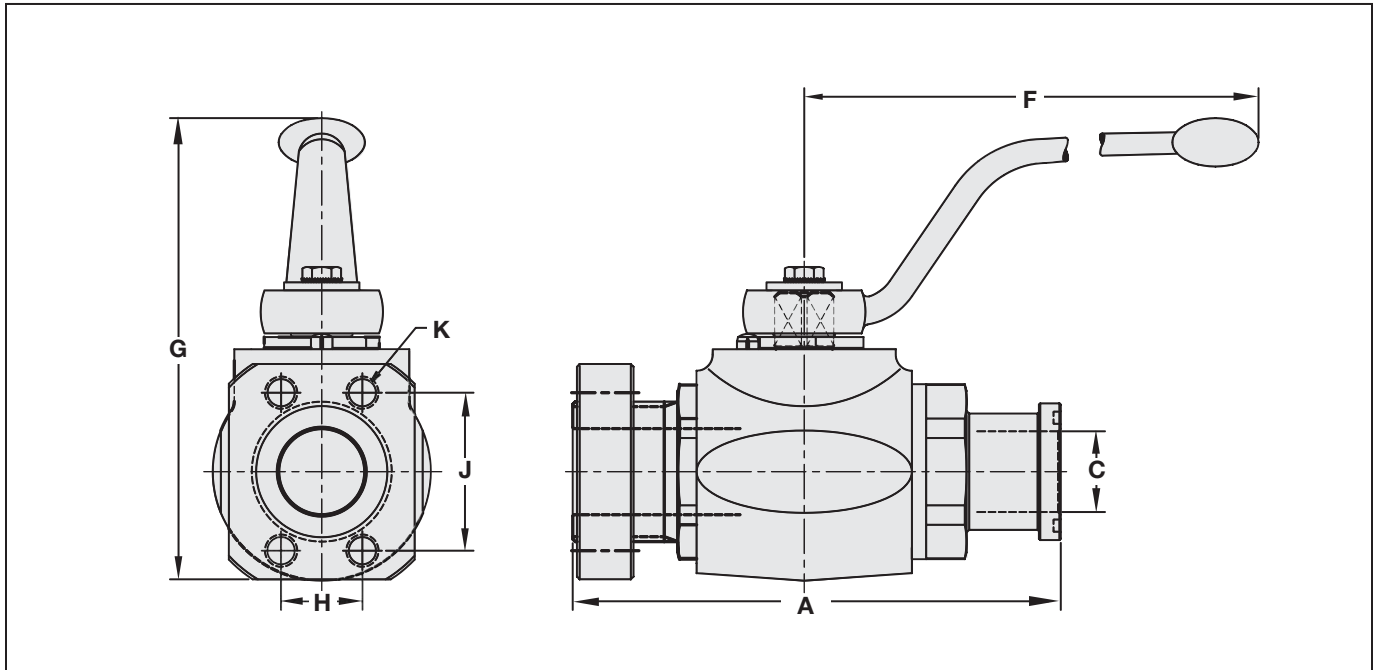


## Specifications

- Combination SAE 4 Bolt and SAE Split Flange
- 1 1/4", 1 1/2" and 2" Forged Body
- SAE Code 61 and 62
- Delrin and MOS2 Ball Seats
- Viton O-Rings
- Carbon Steel Construction Standard
- Temperature Range - -20°F to 212°F (-28°C to 100°C)
- Zinc Plated Body
- Pressure Rating According to SAE Code 61 and 62 Standards

## Options

- All Standard Options Available. Contact Factory for Details



	Size	Part Number	A		C		F		G		H		J		K tap
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
Code 61	1 1/4"	FBV2H200001M	181	7.13	30	1.18	306	12.05	171	6.73	30.2	1.19	58.7	2.31	7/16-14
	1 1/2"	FBV2H240001M	204	8.03	38	1.50	306	12.05	186	7.32	35.7	1.41	69.8	2.75	1/2-13
	2"	FBV2H320001M	214	8.43	48	1.89	306	12.05	195	7.68	42.9	1.69	77.8	3.06	1/2-13
Code 62	1 1/4"	FBV2T200001M	198	7.80	30	1.18	306	12.05	178	7.01	31.8	1.25	66.7	2.63	1/2-13
	1 1/2"	FBV2T240001M	229	9.02	38	1.50	306	12.05	190	7.48	36.5	1.44	79.4	3.13	5/8-11
	2"	FBV2T320001M	256	10.08	48	1.89	306	12.05	211	8.31	44.5	1.75	96.8	3.81	3/4-10

## Specifications - Dual Pattern Code 61 and Code 62

- ½" – 2" Direct Mount
- Delrin +MoS2 Ball Seats
- Viton O-Rings
- Steel Handle
- Direct Mount Eliminates Threads in Fluid Flow
- Machined Body Parts for Reduced Torque Operation.
- Pressure Range: Up to 6000 PSI (400 bar)
- Temperature Range: -30°F to 212°F (-34°C to 100°C)
- Carbon Steel Construction
- Zinc Plated Body



## Options

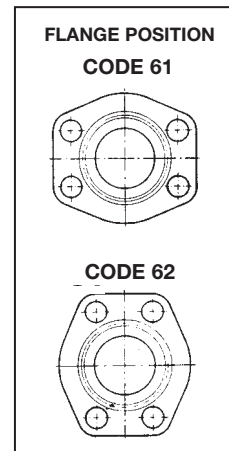
- Flange Kits Available (see page A39)
- Stainless Steel
- Locking Kits
- Limit Switches
- Actuator Packages Available
- Special Seat and "O"-Ring Materials Available for Higher Temperatures or More Aggressive Media

## Technical Information

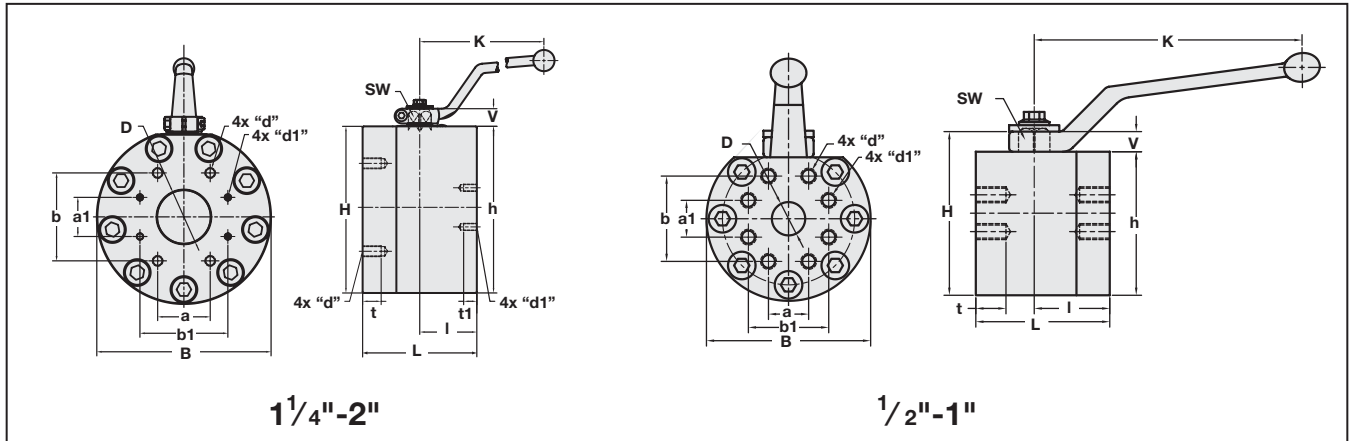
Item Number	Quantity	Description
1	1	Housing
2	1	Ball
3*	2	Seat
4*	1	Cover O-Ring
5	7 to 9**	Cover Screws
6	1	Cover
7	1	Stop Pin
8	1	Stem
9*	1	Thrust Ring
10*	1	Stem O-Ring
11*	1	Back-up Ring
12	1	Cam Plate
13	1	Snap Ring
14	1	Handle
15	1	Nut
16	1	Screw

\*Included in Seal Kit  
\*\* DEPENDING ON VALVE SIZE

Size	Part Number	Maximum Working Pressure	
		PSI	Bar
1/2"	CODE 61	5000 PSI	345
	CODE 62	6000 PSI	420
3/4"	CODE 61	5000 PSI	345
	CODE 62	6000 PSI	420
1"	CODE 61	5000 PSI	345
	CODE 62	6000 PSI	420
1 1/4"	CODE 61	4000 PSI	275
	CODE 62	6000 PSI	420
1 1/2"	CODE 61	3000 PSI	210
	CODE 62	6000 PSI	420
2"	CODE 61	3000 PSI	210
	CODE 62	6000 PSI	420



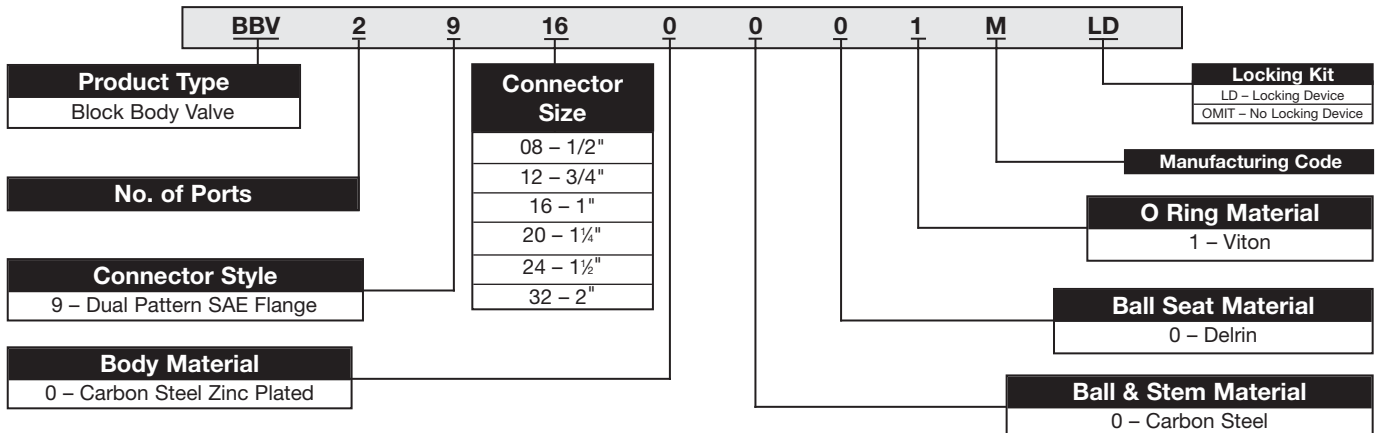
## Dimensional Information



Size	D		L		I		B		H		h		V		SW		K		a		b		a1		b1	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/2"	0.59	15	2.95	75	1.38	35	3.46	88	3.46	88	1.22	31	0.51	13	.47	12	6.3	160	0.72	18	1.59	40	0.69	18	1.50	38
3/4"	0.79	20	3.15	80	1.38	35	3.86	98	3.94	100	1.44	37	0.55	14	.55	14	6.3	160	0.94	24	2.00	51	0.87	22	1.87	48
1"	0.98	25	3.46	88	1.50	38	4.65	118	4.45	113	1.56	40	0.55	14	.55	14	6.3	160	1.03	26	2.06	52	1.09	28	2.25	57
1 1/4"	1.26	32	3.94	100	1.97	50	5.71	145	6.22	158	2.68	68	0.67	17	.67	17	11.81	300	1.25	32	2.63	67	1.19	30	2.31	59
1 1/2"	1.50	38	4.33	110	2.17	55	6.50	165	7.01	178	3.07	78	0.67	17	.67	17	11.81	300	1.44	37	3.13	80	1.40	36	2.75	70
2"	1.89	48	4.57	116	2.28	58	7.80	198	8.27	210	3.70	94	0.67	17	.67	17	11.81	300	1.75	44	3.81	97	1.69	43	3.06	78

Size	UNC Thread d	UNC Thread d1	t		t <sub>1</sub>		Weight	
			in	mm	in	mm	lb	kg
1/2"	5/16"	5/16"	0.71	18	-	-	5.50	2.50
3/4"	3/8"	3/8"	0.71	18	-	-	8.58	3.90
1"	7/16"	3/8"	0.79	20	-	-	13.20	6.00
1 1/4"	1/2"	7/16"	0.87	22	0.87	22	25.52	11.60
1 1/2"	5/8"	1/2"	0.75	19	0.94	24	35.64	16.20
2"	3/4"	1/2"	0.75	19	1.10	28	54.78	24.90

## Ordering Information



## Specification

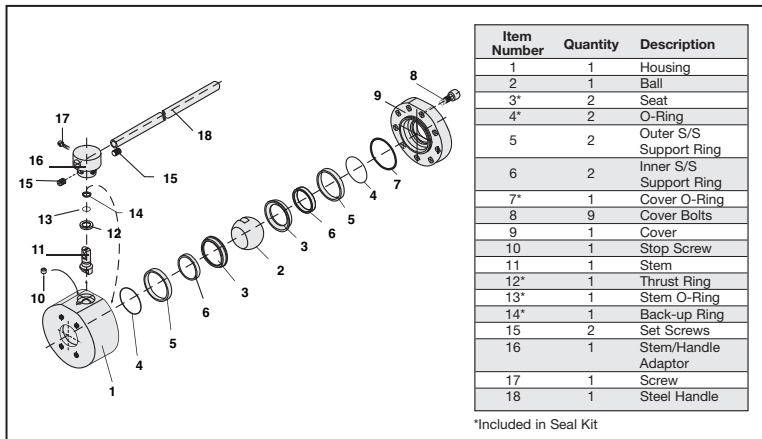
- 2½"– 5" Direct Mount SAE Code 61 Style Flange Connection
- Delrin +MoS<sub>2</sub> Ball Seats
- Viton O-Rings
- Direct Mount Eliminates Threads in Fluid Flow
- Machined Body Parts for Reduced Torque Operation.
- Pressure Range: Up to 2500 PSI\*\* (160 bar)
- Temperature Range: -30°F to 212°F (-34°C to 100°C)
- Carbon Steel Construction
- Removable, Adjustable Steel Handle
- Zinc Plated Body



## Options

- Flange Kits Available (see page A39)
- Stainless Steel
- Locking Kits
- Limit Switches
- Actuator Packages Available

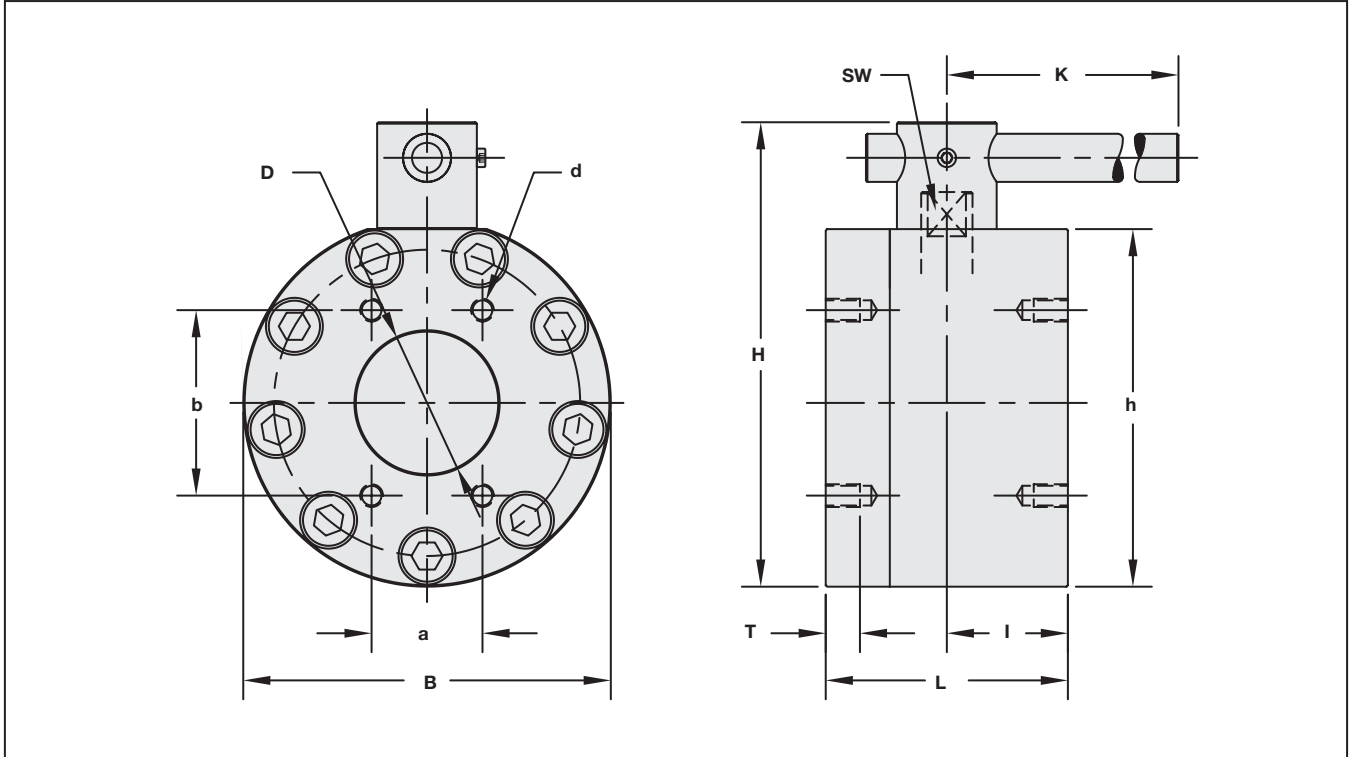
## Technical Information



\*\* Working Pressure for these valves is limited to the SAE Flange Ratings, higher pressures can be accommodated with special Flange Connectors. See "BBVF" Series on page V22.

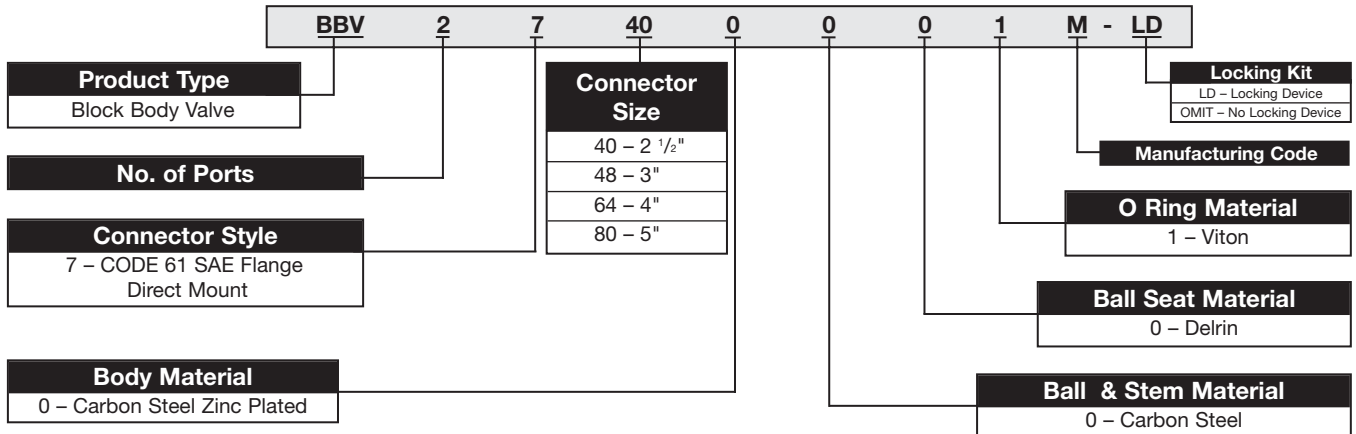
Size		Part Number	Maximum Working Pressure	
			**PSI	Bar
2½"	CODE 61	BBV27400001M	2500 PSI	170
3"	CODE 61	BBV27480001M	2000 PSI	138
4"	CODE 61	BBV27640001M	500 PSI	35
5"	CODE 61	BBV27800001M	500 PSI	35

Dimensional Information



Size	D	L	I	B	H	h	SW	K	a	b	UNC Thread d	T	Weight
	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm		in mm	lb kg
2 1/2"	2.48 63	5.91 150	2.95 75	7.80 198	10.16 258	3.70 94	0.75 19	23.62 600	2.00 51	3.50 89	1/2"	0.75 19	67.10 30.50
3"	2.99 76	5.51 140	2.76 70	8.27 210	10.91 277	3.94 100	0.75 19	23.62 600	2.44 62	4.19 106	5/8"	0.94 24	68.20 31.00
4"	3.94 100	6.69 170	3.35 85	10.16 258	12.83 326	4.80 122	0.94 24	35.43 900	3.06 78	5.13 130	5/8"	0.94 24	121.00 55.00
5"	4.65 118	8.27 210	4.13 105	11.61 295	14.84 377	5.51 140	1.42 36	35.43 900	3.63 92	6.00 152	3/4"	1.18 30	193.60 88.00

Ordering Information



### Specifications

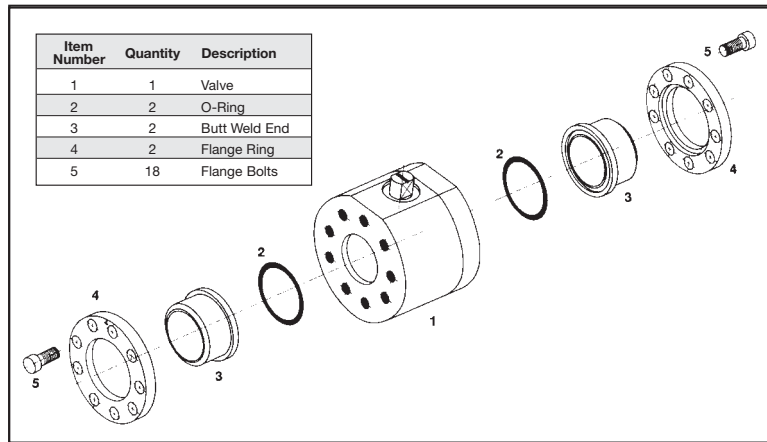
- Direct Mount, High Pressure DIN Flange Design
- 2½" – 5" with Special Flanges for up to 5000 PSI (345 bar)  
Working Pressure at a 3:1 Safety Factor
- Temperature Range: -30°F to 212°F  
(-34°C to 100°C)
- Carbon Steel Construction
- Removable, Adjustable Steel Handle
- Zinc Plated Body

### Options

- Actuator Packages Available
- Limit Switches
- Safety Lock out



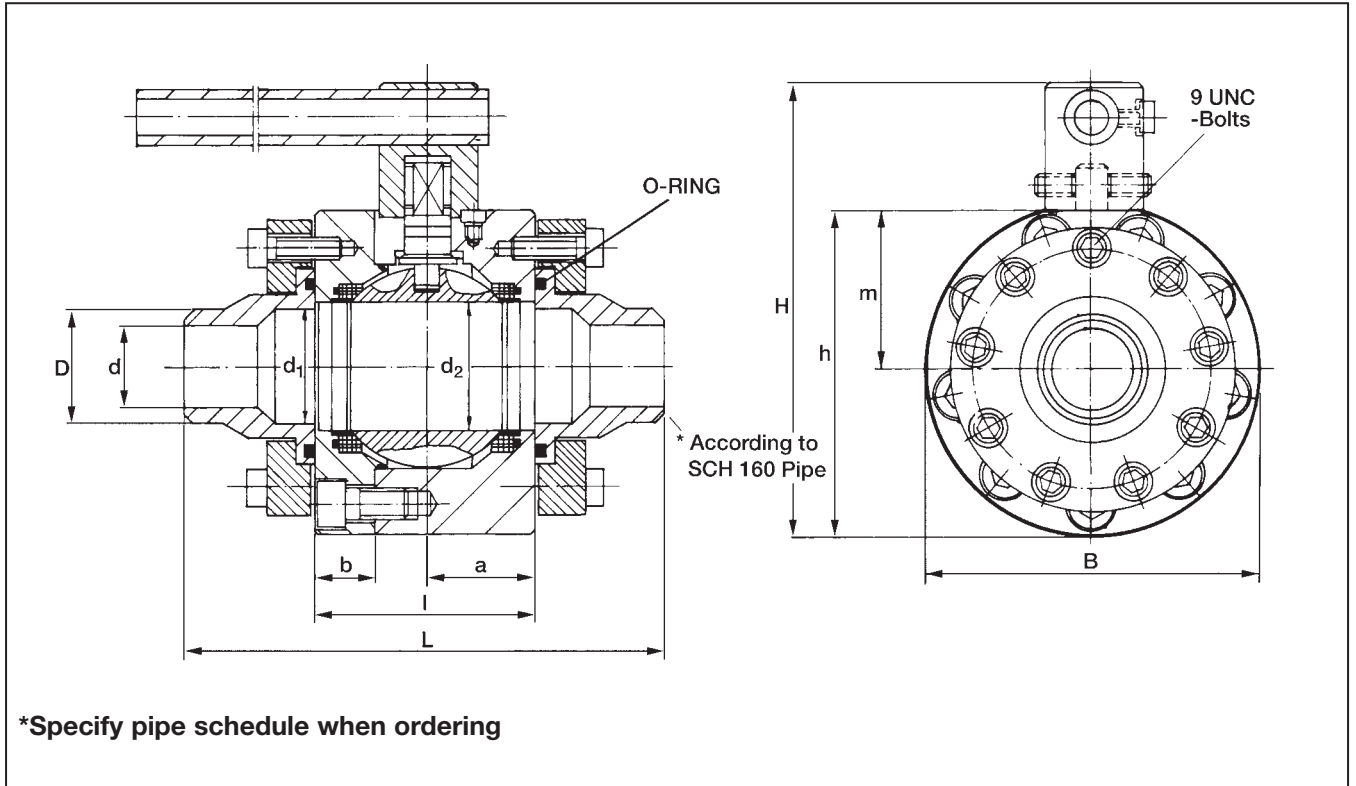
### Technical Information



Size	Part Number	Maximum Working Pressure*	
		PSI	Bar
2½"	BBVF27400001M	5000 PSI	345
3"	BBVF27480001M	5000 PSI	345
4"	BBVF27640001M	5000 PSI	345
5"	BBVF27800001M	5000 PSI	345

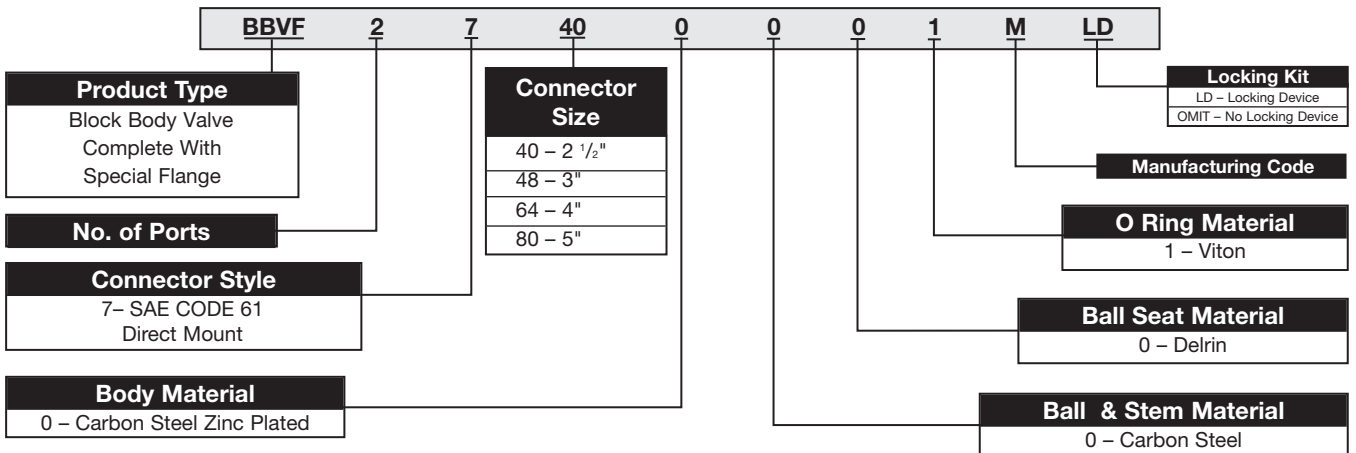
\*Note: With schedule XXS weld ends, consult factory for pressure ratings on schedule 160 weld ends.

## Dimensional Information



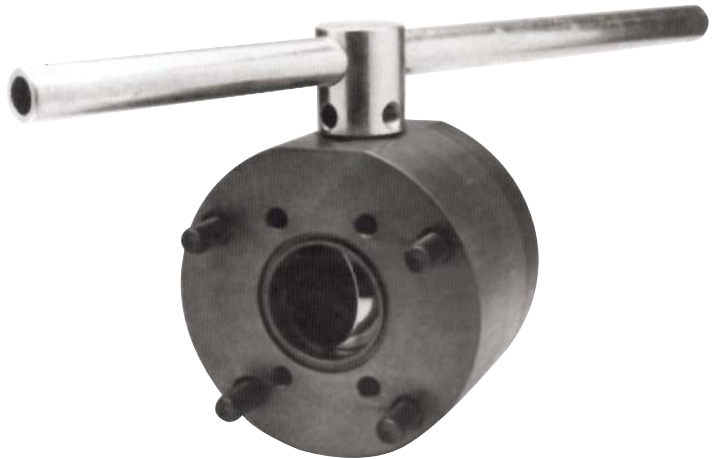
Size	D	d	d <sub>1</sub>	d <sub>2</sub>	a	b	l	L	H	h	m	B	Screw	WT
	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm		lb kg
2½"	2.87 73	2.13 54	2.37 60	2.48 63	2.95 75	1.69 43	5.91 150	9.84 250	10.16 258	7.60 193	3.70 94	7.80 198	½" x 1½"	84 38.2
3"	3.50 89	2.63 67	3.11 79	2.99 76	2.76 70	1.38 35	5.51 140	10.24 260	10.91 277	8.07 205	3.93 100	8.27 210	¾" x 1¾" (2")	94 42.7
4"	4.50 114	3.44 87	3.86 98	3.93 100	3.35 85	1.77 45	6.69 170	12.99 330	12.83 326	9.88 251	4.80 122	10.16 258	¾" x 1¾"	155 70.5
5"	5.56 141	4.31 106	4.74 120	4.64 118	4.13 105	1.89 48	8.27 210	14.57 370	14.84 377	11.31 287	5.51 140	11.61 295	¾" x 2¼"	257 116.8

## Ordering Information



## Specifications

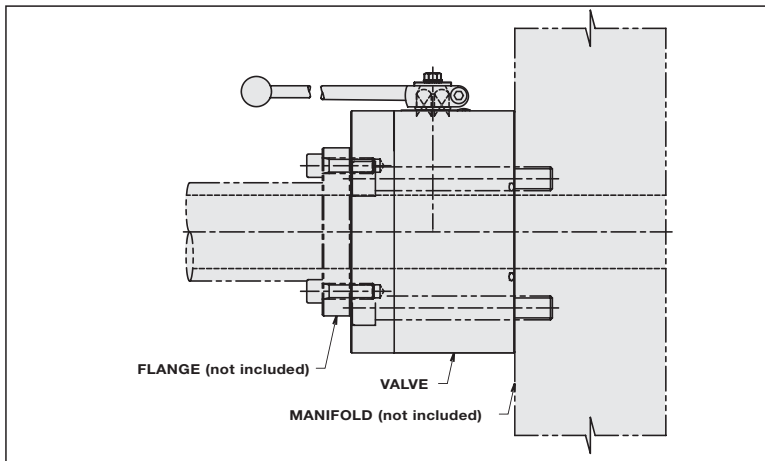
- Direct Mount Manifold Style
- ½" – 2" Standard
- 2½" – 5" Available On Request
- Pressure Range: Up to 6000 PSI (400 bar)
- Temperature Range: -30°F to 212°F (-34°C to 100°C)
- Valve Connects Directly to Manifold Block and Accepts Code 61 or Code 62 SAE Flange
- Carbon Steel Construction
- Zinc Plated Body



## Options

- Actuator Packages Available
- Limit Switches
- Safety Lock out
- Flanges Available

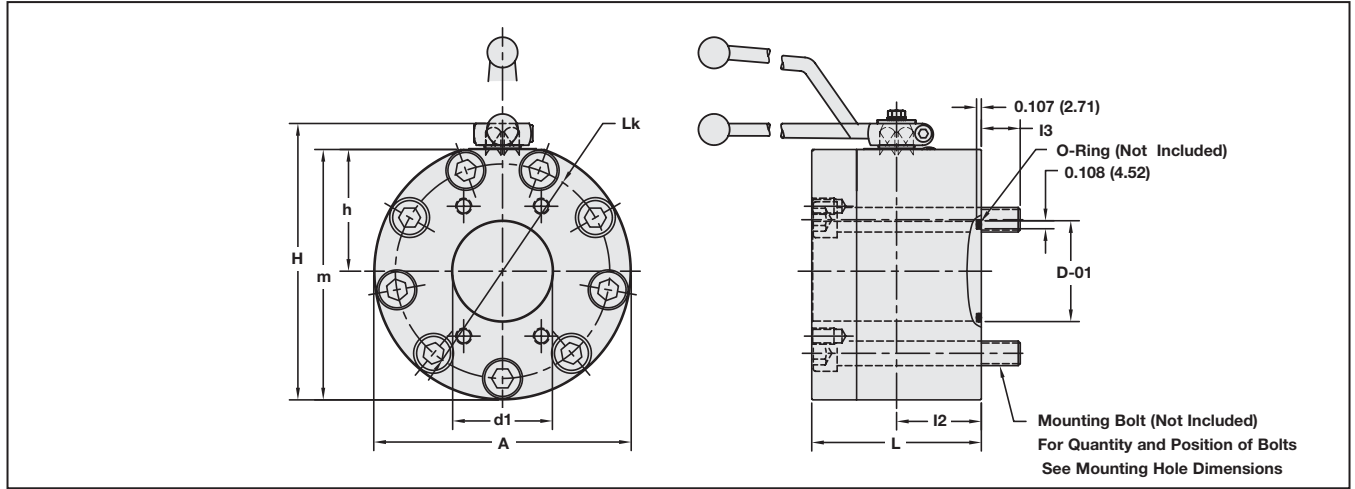
## Typical Installation



Size	SAE Flange Styles	Part Numb	Maximum Working Pressure	
			PSI	Bar
½"	CODE 61	BBVD27080001M	5000 PSI	345
	CODE 62	BBVD28080001M	6000 PSI	400
¾"	CODE 61	BBVD27120001M	5000 PSI	345
	CODE 62	BBVD28120001M	6000 PSI	400
1"	CODE 61	BBVD27160001M	5000 PSI	345
	CODE 62	BBVD28160001M	6000 PSI	400
1¼"	CODE 61	BBVD27200001M	4000 PSI	275
	CODE 62	BBVD28200001M	6000 PSI	400
1½"	CODE 61	BBVD27240001M	3000 PSI	200
	CODE 62	BBVD28240001M	6000 PSI	400
2"	CODE 61	BBVD27320001M	3000 PSI	200
	CODE 62	BBVD28320001M	6000 PSI	400



## Dimensional Information

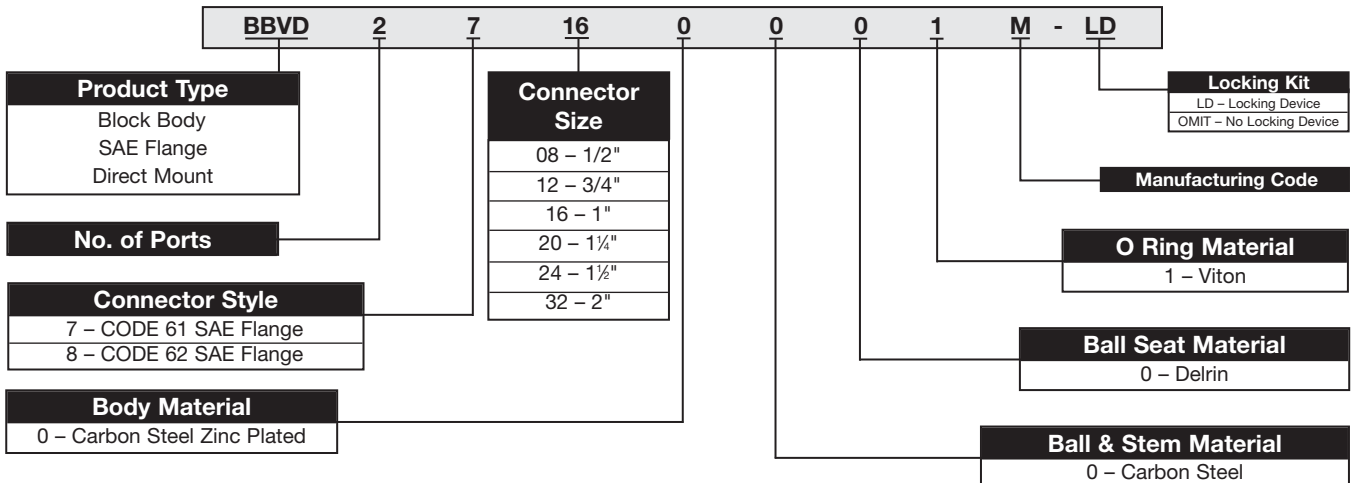


## Mounting Hole Dimensions

Pattern	Size	d <sub>1</sub>		D <sub>2</sub>	Lk		Pattern A	Pattern B
		in	mm		in	mm		
A	1/2"	0.59	14.99	1/2"	2.28	57.91		
	3/4"	0.79	20.07	1/2"	3.03	76.96		
	1"	0.98	24.89	9/16"	3.54	89.92		
B	1 1/4"	1.26	32.00	1/2"	4.57	116.08		
	1 1/2"	1.50	38.10	5/8"	5.31	134.87		
	2"	1.89	48.01	3/4"	6.50	165.10		

Size	L		I <sub>2</sub>		h		m		H		A		Lk		D <sub>01</sub>		I <sub>3</sub>		Screws	Wt	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		lb	kg
1/2"	2.95	75	1.38	35	1.22	31	2.76	70	3.27	83	3.07	78	2.28	58	1.26	32	0.59	15	1/2" x 3"	5.50	2.5
3/4"	3.75	95	1.38	35	1.44	37	3.37	86	3.94	100	3.86	98	3.03	77	1.26	32	0.59	15	1/2" x 3/4"	8.60	3.9
1"	3.46	88	1.50	38	1.56	40	3.88	99	4.45	113	4.65	118	3.54	90	1.52	39	0.59	15	9/16" x 3/2"	13.20	6.0
1 1/4"	3.94	100	1.97	50	2.68	68	5.53	140	6.22	158	5.71	145	4.57	116	1.76	45	1.18	30	1/2" x 4 1/2"	25.50	11.6
1 1/2"	4.33	110	2.17	55	3.07	78	6.32	161	7.01	178	6.50	165	5.31	135	2.13	54	1.18	30	5/8" x 4 3/4"	36.00	16.4
2"	4.57	116	2.28	58	3.70	94	7.60	193	8.27	210	7.80	198	6.50	165	2.51	64	1.18	30	3/4" x 5"	55.00	25.0

## Ordering Information



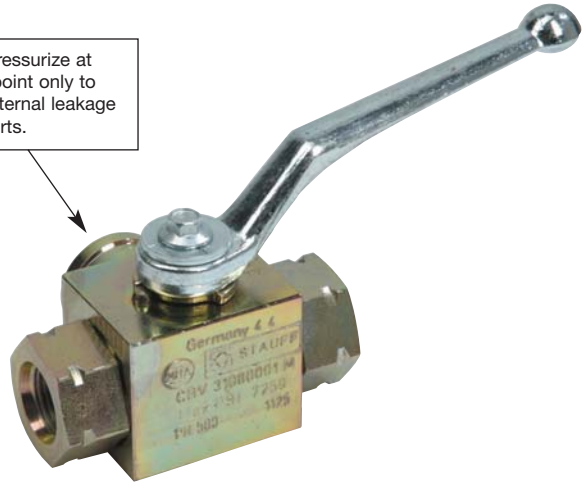
## Specifications

- Compact Diverter Style
- 1/8"– 2" NPT and SAE Connections
- Delrin +MoS<sub>2</sub> Ball Seats
- Viton "O"-Rings
- Pressure Range: Up to 7250 PSI (500 bar)
- Carbon Steel Construction
- Zinc Plated Body
- Temperature Range: -30°F to 212°F (-34°C to 100°C)

## Options

- Locking Device
- Stainless Steel
- Limit Switches
- Actuator Packages Available
- Special Seat and "O"-Ring Available for Higher Temperatures or More Aggressive Media

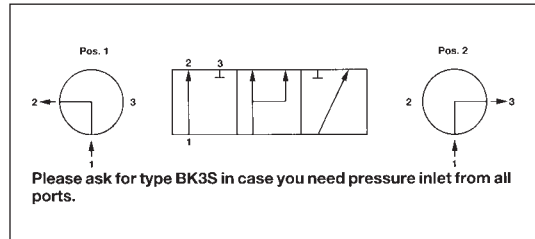
Note: Pressurize at center point only to avoid internal leakage at all ports.



## Technical Information

Item Number	Quantity	Description
1	1	Body
2	1	Stop Pin
3*	1	Stem
4*	1	Thrust Ring
5*	1	Stem O-Ring
6*	1	Stem Back Up Ring
7	1	Ball
8*	2	Ball Seat
9	1	Cam Plate
10	1	Snap Ring
11	2	Connector O-Ring
12	2	Connector
13	1	Handle
14	1	Flow Indicator
15	1	Stem Bolt

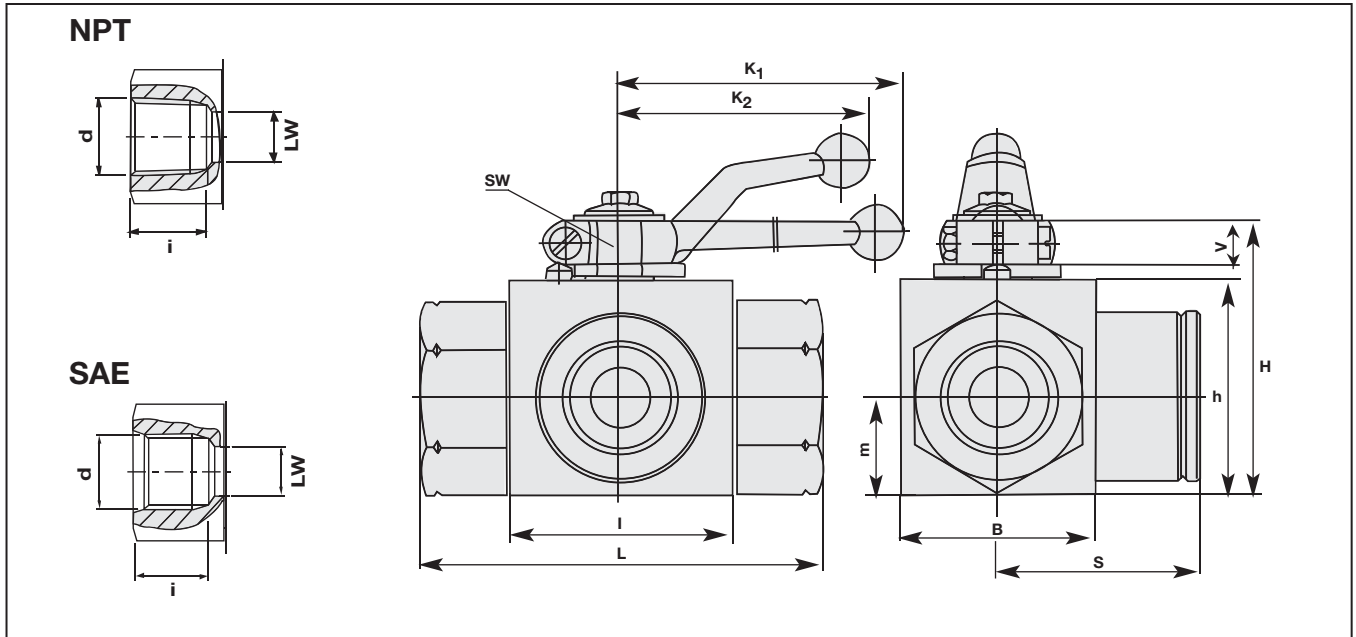
\*Included in Seal Kit



Size		Part Number	Maximum Working Pressure	
			PSI	Bar
1/8"	NPT	CBV30020001M	7250 PSI	500
	SAE	**		
1/4"	NPT	CBV30040001M	7250 PSI	500
	SAE	**		
3/8"	NPT	CBV30060001M	7250 PSI	500
	SAE	**		
1/2"	NPT	CBV30080001M	7250 PSI	500
	SAE	CBV31080001M		
3/4"	NPT	CBV30120001M	5000 PSI	345
	SAE	CBV31120001M		
1"	NPT	CBV30160001M	5000 PSI	345
	SAE	CBV31160001M		
1 1/4"	NPT	CBV30200001M	5000 PSI	345
	SAE	**		
1 1/2"	NPT	CBV30240001M	5000 PSI	345
	SAE	**		
2"	NPT	CBV30320001M	5000 PSI	345
	SAE	**		

\*\* Contact Factory for Availability

## Dimensional Information



Size	d NPT	d SAE	i NPT	i SAE	L NPT	L SAE	LW NPT	LW SAE	I	B	H	h	m	V	S	SW	K1	K2	Wt
			mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in
1/8"	1/8-27	-	13 0.51		69 2.72		6 0.24		40 1.57	29 1.14	47 1.85	33 1.30	13 0.53	11 0.43	35 1.36	9 0.35	150 5.91	115 4.53	0.66 0.3
1/4"	1/4-18	7/16-20	17 0.67	14 0.55	69 2.72	69 2.72	6 0.24	5 0.20	40 1.57	29 1.14	47 1.85	33 1.30	13 0.53	11 0.43	35 1.36	9 0.35	150 5.91	115 4.53	0.66 0.3
3/8"	3/8-18	9/16-18	18 0.69	15 0.61	78 3.07	72 2.83	10 0.39	10 0.39	43 1.69	35 1.38	52 2.05	38 1.50	18 0.69	11 0.43	36 1.42	9 0.35	150 5.91	115 4.53	0.99 0.5
1/2"	1/2-14	5/8-16	25 0.98	18 0.69	104 4.09	83 3.27	13 0.51	13 0.51	48 1.89	38 1.50	54 2.13	40 1.57	19 0.75	11 0.43	41 1.63	9 0.35	150 5.91	115 4.53	1.21 0.6
3/4"	3/4-14	1 1/16-12	23 0.91	23 0.91	102 4.02	95 3.74	20 0.79	20 0.79	62 2.44	52 2.05	75 2.95	57 2.24	24 0.96	14 0.55	48 1.87	14 0.55	200 7.87	160 6.30	3.30 1.5
1"	1-11 1/2	1 5/16-12	28 1.09	23 0.91	119 4.69	113 4.45	25 0.98	25 0.98	66 2.60	61 2.40	83 3.27	65 2.56	29 1.16	14 0.55	56 2.22	14 0.55	200 7.87	160 6.30	4.84 2.2
1 1/4"	1 1/4-11 1/2	1 5/8-12	28.19 1.11	23 0.91	120 4.72	110 4.33	32 1.26	32 1.26	81 3.19	80 3.15	101 3.98	8 3.15	35 1.36	17 0.65	60 2.36	17 0.67		300 11.81	10.00 4.5
1 1/2"	1 1/2-11 1/2	1 7/8-12	28 1.10	23 0.91	130 5.12	130 5.12	38 1.50	38 1.50	104 4.08	100 3.94	121 4.76	100 3.94	47 1.85	17 0.65	70 2.76	17 0.67		300 11.81	18.00 8.2
2"	2 1/2-11 1/2	2 1/2-12	30 1.19	23 0.91	140 5.51	140 5.51	48 1.89	48 1.89	118 4.65	116 4.57	131 5.16	110 4.33	52 2.05	17 0.65	75 2.95	17 0.67		300 11.81	22.00 10.0

## Ordering Information

**CBV 3 0 12 0 0 0 1 M - LD**

- Product Type**  
CBV - Compact Body 3 Way Diverter Valve
- No. of Ports**  
3
- Connector Style**  
0 - NPT  
1 - SAE
- Body Material**  
0 - Carbon Steel Zinc Plated  
1 - 316 Stainless Steel
- Connector Size**  
02 - 1/8"  
04 - 1/4"  
06 - 3/8"  
08 - 1/2"  
12 - 3/4"  
16 - 1"  
20 - 1 1/4"  
24 - 1 1/2"  
32 - 2"
- Locking Kit**  
LD - Locking Device  
OMIT - No Locking Device
- Manufacturing Code**  
0
- O Ring Material**  
1 - Viton
- Ball Seat Material**  
0 - Delrin
- Ball & Stem Material**  
0 - Carbon Steel  
1 - 316 Stainless Steel

## Specifications

- Multi-Way Style
- 1/8" – 1" Full Bore
- 1 1/4" – 1 1/2" Reduced Bore
- NPT Connections
- Trunnion Style Ball Hard Chromium Plated
- Pressure Range: Up to 7250 PSI (500 bar)
- Zinc Plated Body
- Pressure Loaded Seats at All Ports
- Temperature Range: -20°F to 212°F (-28°C to 100°C)

## Options

- SAE Ports Available On Request
- Special Porting Patterns Available
- Actuator Packages Available
- Locking Devices
- Limit Switches
- Special Seat and "O"-Ring Materials Available for Higher Temperatures and More Aggressive Media



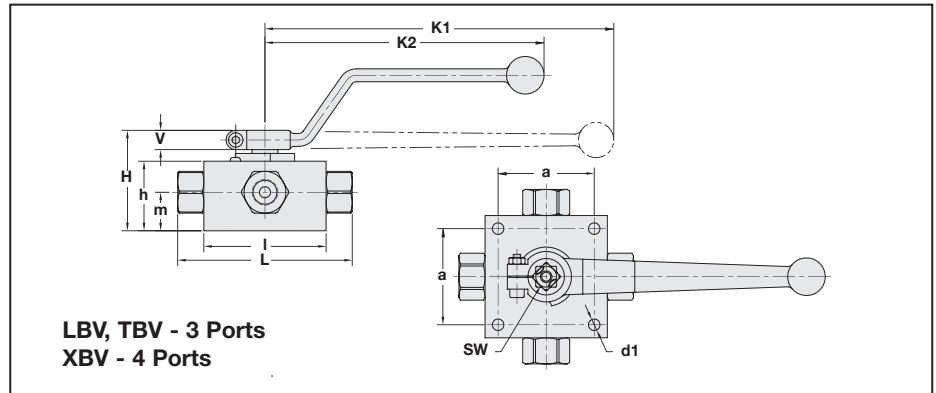
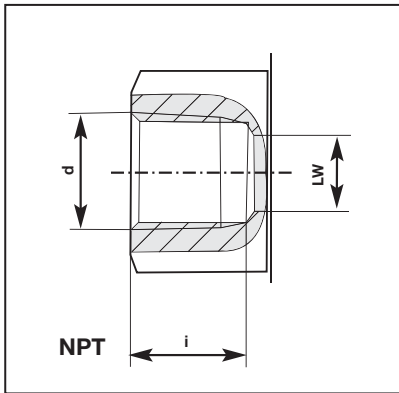
## Technical Information

Item Number	Quantity	Description
1	1	Body
2	1	Stop Pin
3*	2	Bearing
4	1	Trunnion Retainer
5*	2	Trunnion O-Ring
6*	1	Retainer O-Ring
7*	4	Ball Seat
8*	4	Seat O-Ring
9*	4	Connector O-Ring
10	1	Cam Plate
11	1	Snap Ring
12*	2	Trunnion Back Up Ring
13	4	Seat Support
14	1	Tunnion Ball
15	4	Connector
16	1	Handle
17	1	Handle Bolt

\*Included in Seal Kit

Size		Part Number	Maximum Working Pressure	
			PSI	Bar
1/4"	NPT	LBV30040001M	7250 PSI	500
		TBV30040001M		
		XBV40040001M		
3/8"	NPT	LBV30060001M	7250 PSI	500
		TBV30060001M		
		XBV40060001M		
1/2"	NPT	LBV30080001M	5800 PSI	400
		TBV30080001M		
		XBV40080001M		
3/4"	NPT	LBV30120001M	4500 PSI	310
		TBV30120001M		
		XBV40120001M		
1"	NPT	LBV30160001M	4500 PSI	310
		TBV30160001M		
		XBV40160001M		
1 1/4"	NPT	LBV30200001M	4500 PSI	310
		TBV30200001M		
		XBV40200001M		
1 1/2"	NPT	LBV30240001M	3600 PSI	250
		TBV30240001M		
		XBV40240001M		

## Dimensional Information



Size	d NPT	LW		L		l		a		H		h		m		K <sub>1</sub>		K <sub>2</sub>		V		SW		i		d <sub>1</sub>		Weight	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/4"	1/8-18	0.24	6	3.94	100	2.76	70	2.17	55	2.28	58	1.57	40	0.87	22			6.30	160	0.51	13	0.47	12	0.67	17	0.26	7	3.60	2
3/8"	3/8-18	0.31	8	4.53	115	3.15	80	2.56	65	2.68	68	1.97	50	1.06	27	7.87	200	6.30	160	0.55	14	0.55	14	0.69	18	0.26	7	5.10	2
1/2"	1/2-14	0.51	13	6.30	160	3.94	100	3.15	80	3.07	78	2.36	60	1.22	31	7.87	200	6.30	160	0.55	14	0.55	14	0.98	25	0.35	9	11.50	5
3/4"	3/4-14	0.71	18	6.46	154	4.45	113	3.35	85	3.46	88	2.64	67	1.44	37			11.81	300	0.65	17	0.67	17		0.33	8	15.15	7	
1"	1-1 1/2	0.91	23	7.32	186	4.68	119	3.35	85	4.06	103	3.23	82	1.87	48			11.81	300	0.65	17	0.67	17	1.11	28	0.33	8	19.10	9
1 1/4"	1 1/4-11 1/2	0.91	23	7.32	186	4.68	119	3.35	85	4.06	103	3.23	82	1.87	48			11.81	300	0.65	17	0.67	17	1.09	28	0.33	8	19.70	9
1 1/2"	1 1/2-11 1/2	0.91	23	7.32	186	4.68	119	3.35	85	4.06	103	3.23	82	1.87	48			11.81	300	0.65	17	0.67	17	1.10	28	0.33	8	19.90	9

## Standard Porting Patterns for Multi-Position Valves

REF NO.	VALVE STYLE	CYCLING	PORTING SYMBOLS	HYDRAULIC SCHEMATIC SYMBOLS	CROSS-OVER POSITION SYMBOLS	DESCRIPTIONS
1	3/2 - Position Valve with L bore LBV...	90°				Trunnion ball, all ports closed in cross-over position, full bore.
2	3/2 - Position Valve with T bore TBV...	90°				Trunnion ball, all ports closed in cross-over position, full bore.
3	3/3 - Position Valve with T bore and detent	2 x 90°				Trunnion ball, all ports closed in cross-over position, full bore; detent at center position is recommended.
4	4/2 - Position Valve with double L bore XBV...	90°				Trunnion ball, temporary connection of all ports in cross-over position but with full shut-off at center point; reduced bore; detent at center position is recommended.

## Ordering Information

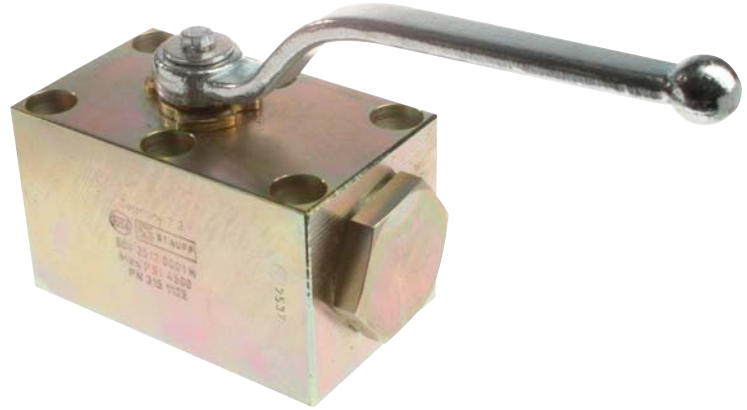
**LBV 3 0 08 0 0 0 1 M - LD**

<b>Product Type</b> LBV - 3/2 L Ported Valve TBV - 3/2 T Ported Valve XBV - 4/2 X Ported Valve	<b>Connector Size</b> 04 - 1/4" 06 - 3/8" 08 - 1/2" 12 - 3/4" 20 - 1" 24 - 1 1/2"	<b>Locking Kit</b> LD - Locking Device OMIT - No Locking Device
<b>No. of Ports</b> 3 - LBV, TBV 4 - XBV	<b>Manufacturing Code</b>	<b>O Ring Material</b> 1 - Viton
<b>Connector Style</b> 0 - NPT 1 - SAE	<b>Ball Seat Material</b> 0 - Delrin	<b>Trunnion Material</b> 0 - Chrome Plated Steel 1 - 316 Stainless Steel
<b>Body Material</b> 0 - Carbon Steel Zinc Plated 1 - 316 Stainless Steel		

VALVES

## Specifications

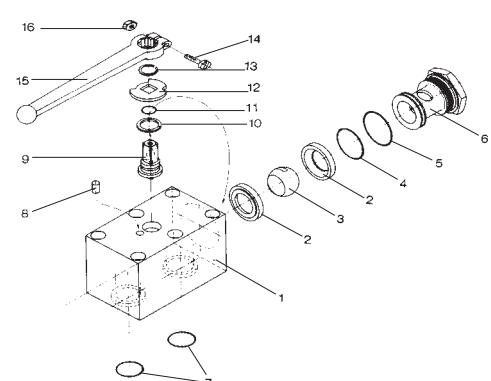
- ¼" – 2" Manifold Block Style
- Improved manifold design eliminates external piping and connectors.
- Delrin +MoS2 Ball Seat
- Viton O-Rings
- Pressure Range: Up to 7250 PSI (500 bar)
- Carbon Steel Construction
- Temperature Range: -20°F to 212°F (-29°C to 100°C)
- Six Mounting Holes, for added safety (¼" and ⅜" versions have 4 mounting holes)
- Mounting Bolts not supplied
- Zinc Plated Body



## Options

- Locking Device
- Actuator Packages Available
- Limit Switches
- Stainless Steel
- Three-way valves

## Technical Information

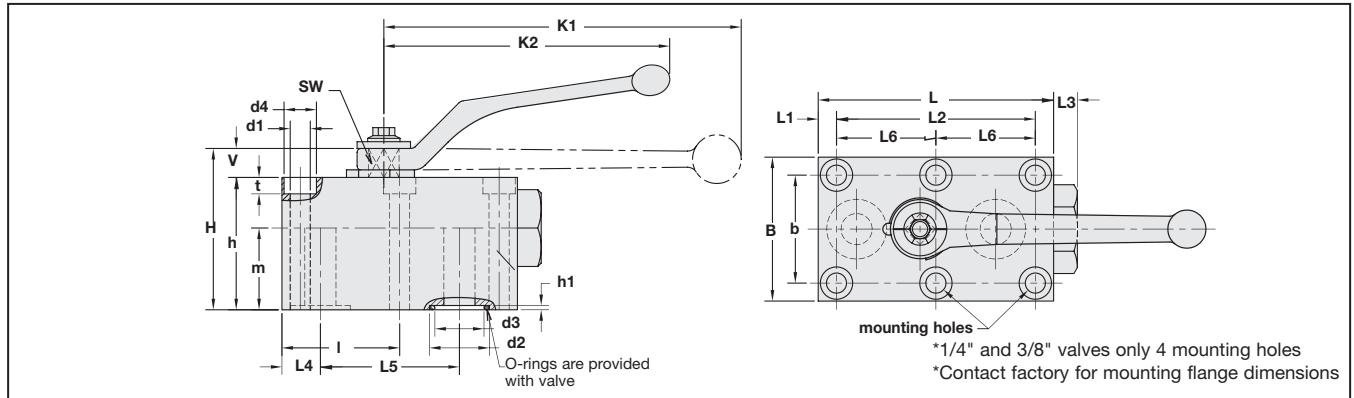


Item Number	Quantity	Description
1	1	Body
2*	1	Seats
3	2	Ball
4*	2	O-Ring
5*	2	O-Ring
6	2	Retainer Plug
7*	2	O-Ring
8	1	Stop Pin
9	1	Stem
10*	1	Thrust Ring
11	1	O-Ring
12	1	Cam Plate
13	1	Snap Ring
14	1	Clamping Screw
15	1	Handle
16	1	Clamping Nut

\*Included in Seal Kit

Size	Part Number	Maximum Working Pressure	
		PSI	Bar
¼"	BBV25040001M	7250 PSI	500
⅜"	BBV25060001M	7250 PSI	500
½"	BBV25080001M	5800 PSI	400
¾"	BBV25120001M	4500 PSI	310
1"	BBV25160001M	4500 PSI	310
1¼"	BBV25200001M	4500 PSI	310
1½"	BBV25240001M	4500 PSI	310
2"	BBV25320001M	4500 PSI	310

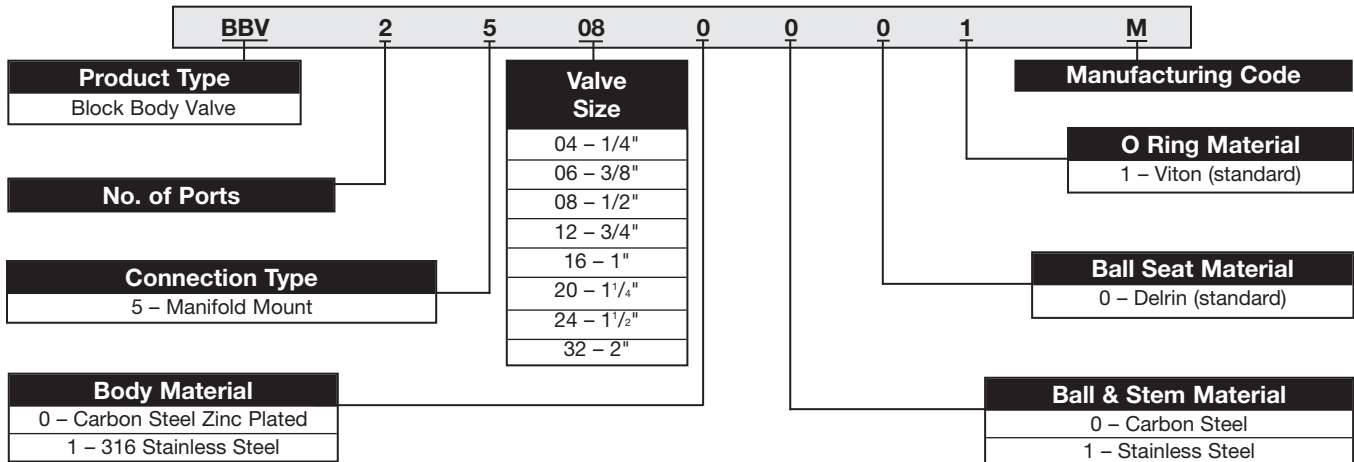
## Dimensional Information



Size	L		L <sub>1</sub>		L <sub>2</sub>		L <sub>3</sub>		L <sub>4</sub>		L <sub>5</sub>		L <sub>6</sub>		I		d <sub>1</sub>		d <sub>2</sub>		d <sub>3</sub>		d <sub>4</sub>	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/4"	2.24	57	0.33	8	1.38	35	0.24	6	0.33	8	1.38	35			1.02	26	0.26	7	0.46	12	0.24	6	0.41	10
3/8"	2.76	70	0.30	8	2.17	55	0.39	10	0.39	10	1.73	44			1.14	29	0.33	8	0.59	15	0.37	9	0.53	13
1/2"	3.86	98	0.30	8	3.27	83	0.39	10	0.63	16	2.28	58	1.63	41	1.67	42	0.33	8	0.98	25	0.51	13	0.53	13
3/4"	4.61	117	0.39	10	3.82	97	0.39	10	0.79	20	2.72	69	1.91	49	2.01	51	0.41	10	1.22	31	0.79	20	0.65	17
1"	5.31	135	0.39	10	4.53	115	0.39	10	0.94	24	3.19	81	2.26	57	2.44	62	0.41	10	1.37	35	0.98	25	0.65	17
1 1/4"	6.50	165	0.47	12	5.35	136	0.39	10	1.14	29	3.78	96	2.68	68	2.95	75	0.51	13	1.57	40	1.26	32	0.75	19
1 1/2"	7.11	181	1.12	28	4.41	112	0.65	17	1.12	28	4.41	112	2.20	56	3.33	85	0.67	17	1.88	48	1.50	38	0.98	25
2"	8.90	226	1.50	38	5.35	136	0.60	15	1.50	38	5.35	136	2.68	68	4.17	111	0.83	21	2.35	60	1.89	48	1.22	31

Size	H		h		h <sub>1</sub>		m		v		SW		K <sub>1</sub>		K <sub>2</sub>		B		b		t		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/4"	1.69	43	1.38	35	0.07	2	0.77	20	0.24	6	0.28	7			3.15	80	1.57	40	1.06	27	0.27	7	1.32	0.6
3/8"	2.32	59	1.77	45	0.07	2	0.96	24	0.43	11	0.35	9	5.91	150	4.53	115	2.17	55	1.57	40	0.33	8	2.86	1.3
1/2"	2.72	69	2.17	55	0.07	2	1.34	34	0.43	11	0.35	9	5.91	150	4.53	115	2.36	60	1.77	45	0.28	7	4.84	2.2
3/4"	3.46	88	2.76	70	0.12	3	1.48	38	0.55	14	0.55	14	7.87	200	6.30	160	2.76	70	2.01	51	0.41	10	8.58	3.9
1"	3.86	98	3.15	80	0.09	2	1.75	44	0.55	14	0.55	14	7.87	200	6.30	160	3.15	80	2.36	60	0.41	10	12.43	5.65
1 1/4"	4.76	121	3.94	100	0.08	2	2.15	55	0.65	17	0.67	17			11.81	300	3.94	100	3.07	78	0.47	12	24.42	11.1
1 1/2"	4.76	121	3.94	100	0.09	2	1.85	46	0.65	17	0.67	17			11.81	300	5.12	130	3.74	95	0.67	17	33.66	15.3
2"	5.90	150	5.07	129	0.09	2	2.80	71	0.80	20	0.67	17			11.81	300	5.91	150	4.41	112	0.85	22	48.18	21.9

## Ordering Information



Add on feature to lock or tag out valves used in pressure line in accordance with OSHA regulations.

## Factory installed Locking Kit

### Specifications

- Available for STAUFF valves up to 2" size.  
Design changes for Direct Mount SAE Valve. Pad Lock not included. Plate is stainless steel, for block body and forged body two-way valves.



Locking Kit Part #	Fits	Valve Size
LD-BBV04-08	BBV/BBVM/CBV	1/8"-1/2" with SW9 Stem
LD-BBV12-24	BBV/BBVM/CBV	3/4"-1" & 1 1/4"-1 1/2" Reduced Bore
LD-FBV20-32	FBV	1 1/4"-2"

## Field Installed Locking Kit

### Specifications

- New design for easy field installation. No welding or drilling required. This tamper resistant design is available up to 2" size. Made of Zinc plated yellow chromated carbon steel. Pad lock not included.
- Accepts Standard Lock

### Order Example

- Match stem dimension "SW" of Valve, with **bold SW** for kit number - add to valve

Kit #  
LD **SW9** FI  
LD **SW14** FI  
LD **SW17** FI

i. e., BBV20160001M/LD **SW14** FI



**ALL VALVES ARE AVAILABLE WITH LOCKING DEVICE  
CONTACT FACTORY FOR DETAILS ON VALVES NOT LISTED.**



## Seal Kit Ordering Guide for Two-Way Ball Valves Ending in ...01M (Derlin/Viton seat/seal combination)

Threaded & Split Flange End Ball Valves	Ball Valve Series	Seal Kit Part Number
1/4" NPT or SAE	BBV + BBVM + CBV	BBVS/K047101M
3/8" NPT or SAE	BBV + BBVM + CBV	BBVS/K067101M
1/2" NPT, SAE or SAE code 61 & 62 Split Flange	BBV + BBVM + CBV	BBVS/K087101M
3/4" NPT, SAE or SAE code 61 & 62 Split Flange	BBV + BBVM + CBV	BBVS/K124501M
1" & (1.1/4", 1.1/4" reduced bore) NPT, SAE or SAE only	BBV + BBVM + CBV	BBVS/K164501M
1 1/4" NPT, SAE or SAE code 61 & 62 Split Flange	FBV + CBV	BBVS/K204501M
1 1/2" NPT, SAE or SAE code 61 & 62 Split Flange	FBV + CBV	FBVS/K244501M
2" NPT, SAE or SAE code 61 & 62 Split Flange	FBV + CBV	FBVS/K324501M

Direct Mount SAE Flange Ball Valves	Ball Valve Series	Seal Kit Part Number
1/2"	BBV, BBVD	BBVS/K082801M
3/4"	BBV, BBVD	BBVS/K122801M
1"	BBV, BBVD	BBVS/K162801M
1 1/4"	BBV, BBVD	BBVS/K202801M
1 1/2"	BBV, BBVD	BBVS/K242801M
2"	BBV, BBVD	BBVS/K322801M
2 1/2"	BBV, BBVD & BBVF	BBVS/K402701M
3"	BBV, BBVD & BBVF	BBVS/K482701M
4"	BBV, BBVD & BBVF	BBVS/K642701M
5"	BBV, BBVD & BBVF	BBVS/K802701M

All seal kits include all non-ferrous component parts

## Pneumatic Actuator Packages

Most Stauff valves can be factory mounted to compact, efficient pneumatic actuators. The actuators feature simple, robust construction and are suitable for applications with high cycle requirements. The double piston design significantly reduces the overall size of the valve/actuator package.

Solenoid valves and limit switches are available.

Note: Actuators are designed for 90 degree open/close applications only, they should not be used for valve throttling.

Electric Valve Actuator Packages can also be offered for different valve styles and sizes.

Contact Stauff with requirements.



## Limit Switches

Most Stauff valves can be ordered with one or two limit switches to indicate whether the valve is in the open or closed position.

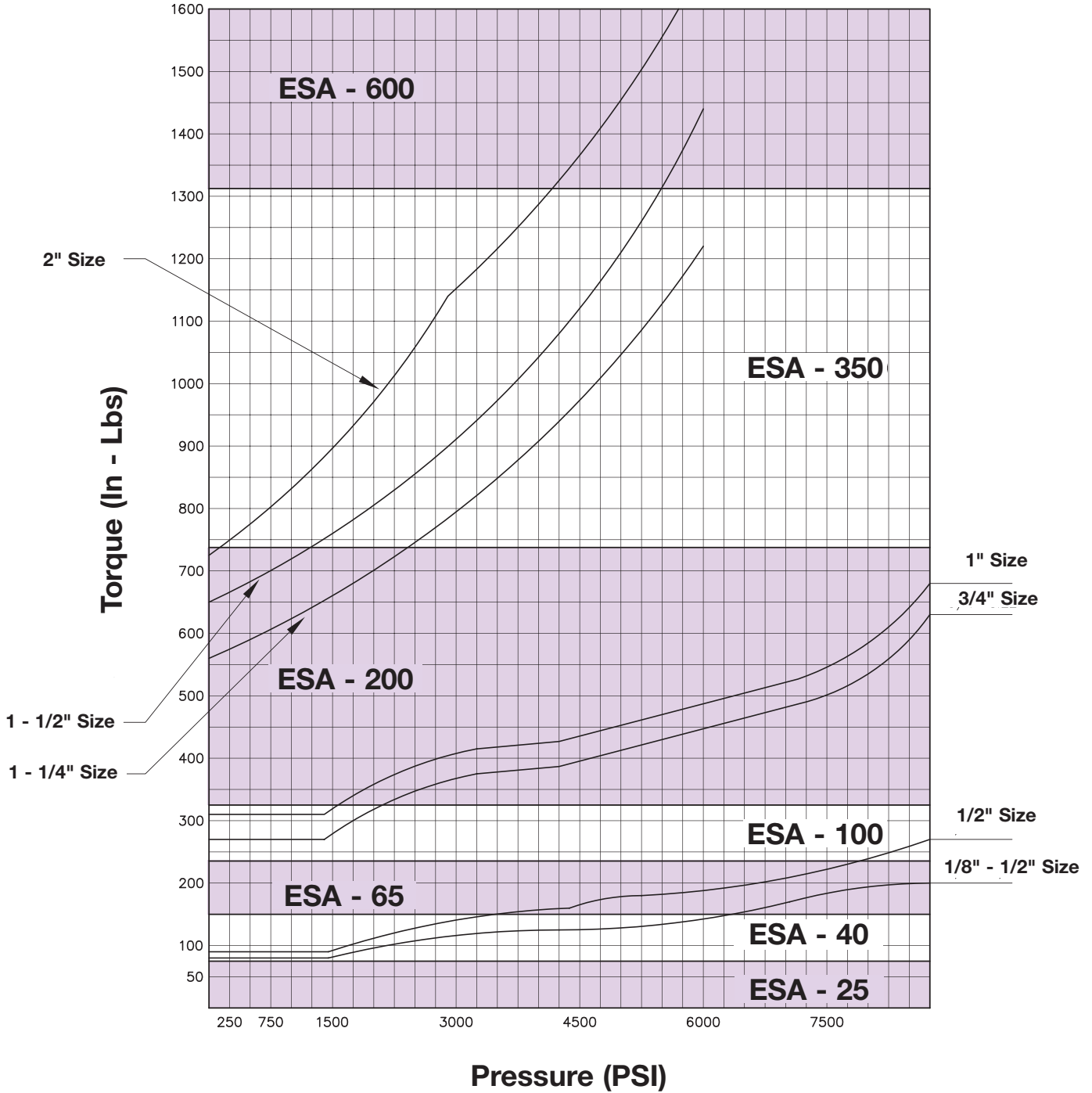
Contact Stauff with requirements.



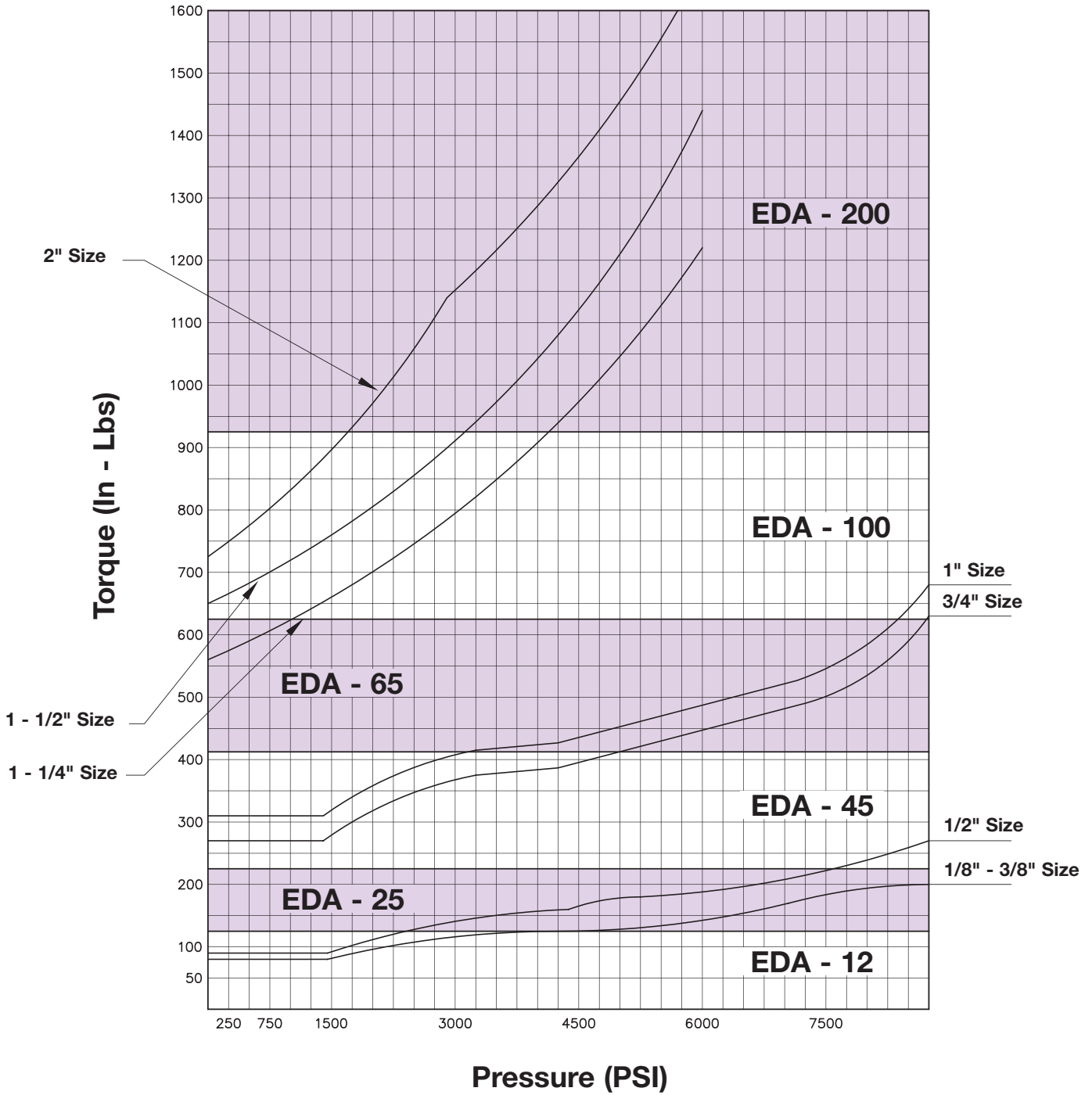


**Actuator Selection Chart - Single Acting Pneumatic Actuator**

**For Two-Way Ball Valves with Normal Hydraulic Fluid:**  
 (minimum air supply pressure is 80 PSI)



For Two-Way Ball Valves with Normal Hydraulic Fluid:  
 (minimum air supply pressure is 80 PSI)



## Specifications

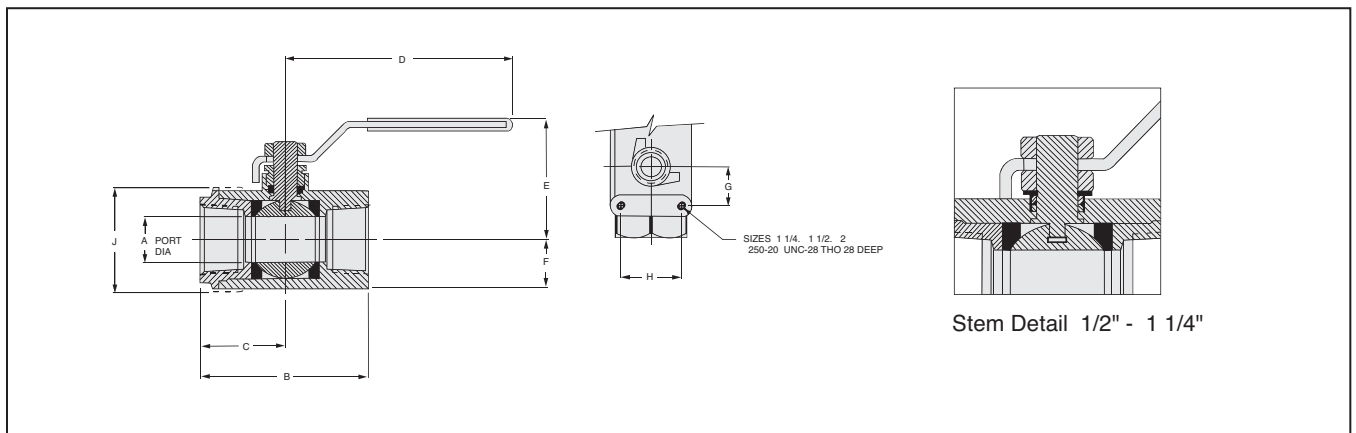
- Hex Body, Medium Pressure
- 2000 PSI (138 bar) Pressure Rating
- NPT Connections
- Zinc Phosphated, Carbon Steel Body
- Chrome Plated Carbon Steel Ball
- Delrin Seats – PTFE Seals



## Options

- Lockout Handle

## Dimensional Information



## Ordering Information

Part Number	Port A	DIA A		B		C		D		E		F		G		H		J	CV	Weight	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm			kg	lbs
2BVM 2004S	1/4" NPT	0.40	10	2.00	51	1.00	25	3.78	96	1.63	41	0.53	13	-	-	-	-	-	6	0.6	0.27
2BVM 2006S	3/8" NPT	0.40	10	2.00	51	1.00	25	3.78	96	1.63	41	0.53	13	-	-	-	-	-	12	0.6	0.27
2BVM 2008S	1/2" NPT	0.54	14	2.37	60	1.12	28	3.78	96	1.73	44	0.63	16	-	-	-	-	-	15	0.8	0.36
2BVM 2012S	3/4" NPT	0.68	17	2.90	74	1.40	36	5.10	130	2.08	53	0.81	21	-	-	-	-	-	23	1.4	0.63
2BVM 2016S	1" NPT	0.88	22	3.41	87	1.65	42	5.10	130	2.30	58	1.00	25	-	-	-	-	-	36	2.4	1.09
2BVM 2020S	1 1/4" NPT	1.00	25	3.94	100	2.00	51	6.10	155	2.76	70	1.13	29	0.94	24	1.50	38	-	44	2.7	1.22
2BVM 2024S	1 1/2" NPT	1.25	32	4.65	118	2.37	60	6.10	155	2.98	76	1.34	34	0.94	24	1.50	38	2.75	70	6.5	2.04
2BVM 2032S	2" NPT	1.50	38	4.98	127	2.57	65	8.60	218	3.54	90	1.52	39	1.03	26	2.00	51	-	114	6.1	2.77

## Lock Out Kit

Part No.
2BVM/LD04 (FITS 1/4" - 1/2")
2BVM/LD12 (FITS 3/4" - 1")
2BVM/LD20 (FITS 1 1/4" - 1 1/2")
2BVM/LD32 (FITS 2")

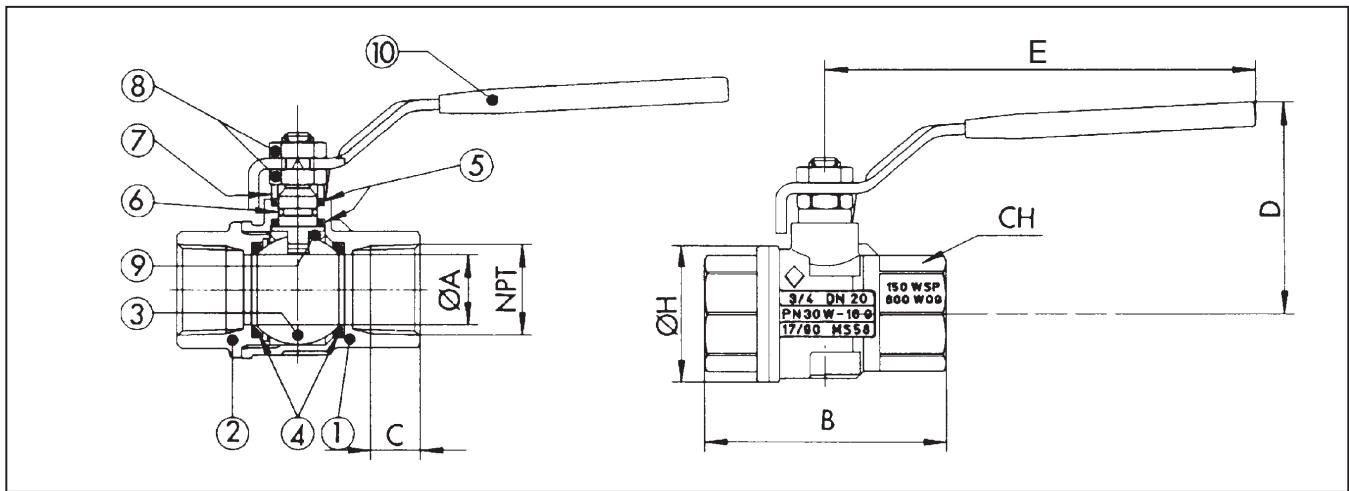
## Specifications

- Brass Hot Stamping with Chrome Plated Brass Ball ¼" to 4"
- Pressure Rating to 600 PSI (WOG) (40 bar)
- Blow Out Proof Stem
- Teflon Seats, Seals & Thrust Washer
- Temperature to 320°F (160°C)
- Metal Handle ¼" to 2"
- Aluminum Handle 2½" to 4"
- All Valves are Full Port.



## Options

- Limit Switches
- Locking Handles

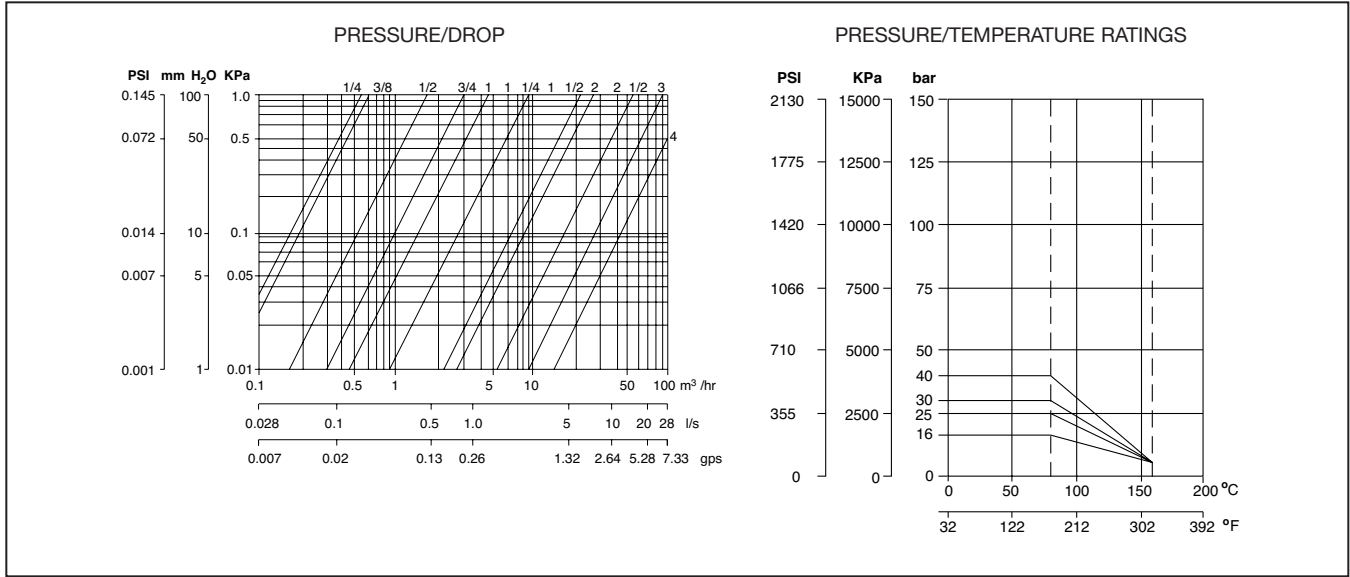


## Dimensional Information

N Pos	Part Name	Materials	N Pcs.
1	BODY	BRASS UNI 5707-65	1
2	END CONNECTION	BRASS UNI 5705-65	1
3	BALL	BRASS UNI 5705-65	1
4	SEAT MATERIAL	P.T.F.E.	2
5	STEM SEALS	P.T.F.E.	2
6	O-RING	NBR 75 Sh A	1
7	PACKING GLAND	BRASS UNI 5705-65	1
8	NUT	PLATED STEEL	2
9	STEM	BRASS UNI 5705-65	1
10	LEVER HANDLE	PLATED* STEEL	1

Part No.	Size NPT	ØA	C	B	ØH	CH	E	D	CV Factor	PSI Bar	Lbs Kg
2BVL-20 04 B	¼" in mm	0.39 10	0.39 10	2.02 51.5	0.90 23	0.78 20	3.85 98	1.75 44.5	6.29	600 40	0.30 0.14
2BVL-20 06 B	⅜" in mm	0.39 10	0.40 10	2.02 51.5	0.90 23	0.78 20	3.85 98	1.75 44.5	6.99	600 40	0.28 0.13
2BVL-20 08 B	½" in mm	0.59 15	0.53 13.6	2.44 62	1.25 32	0.98 25	3.85 98	1.88 48	19	600 40	0.41 0.19
2BVL-20 12 B	¾" in mm	0.78 20	0.55 14	2.71 69	1.53 39	1.22 31	4.80 122	2.28 58	34.42	600 40	0.67 0.31
2BVL-20 16 B	1" in mm	0.98 25	0.66 16.8	3.07 78	1.92 49	1.49 38	4.80 122	2.44 62	50.18	600 40	1.09 0.50
2BVL-20 20 B	1¼" in mm	1.25 32	0.68 17.3	3.42 87	2.32 59	1.88 48	6.02 153	3.07 78	103.7	600 40	2.01 0.92
2BVL-20 24 B	1½" in mm	1.57 40	0.68 17.3	3.89 99	2.87 73	2.12 54	6.02 153	3.34 85	268.41	600 40	3.08 1.40
2BVL-20 32 B	2" in mm	1.96 50	0.69 17.7	4.33 110	3.38 86	2.63 67	6.37 162	3.79 96.5	309.2	600 40	4.18 1.90
2BVL-20 40 B	2½" in mm	2.56 65	1.19 30.2	5.59 142	4.37 111	3.54 90	8.07 205	5.02 127.5	629	600 40	8.00 3.66
2BVL-20 48 B	3" in mm	3.15 80	1.31 33.3	6.45 164	5.35 136	4.13 105	8.07 205	5.45 138.5	1018.17	600 40	12.90 5.90
2BVL-20 64 B	4" in mm	3.94 100	1.55 39.3	7.60 193	6.35 166	5.12 130	10.23 260	6.34 161	1622	600 40	22.04 10.0

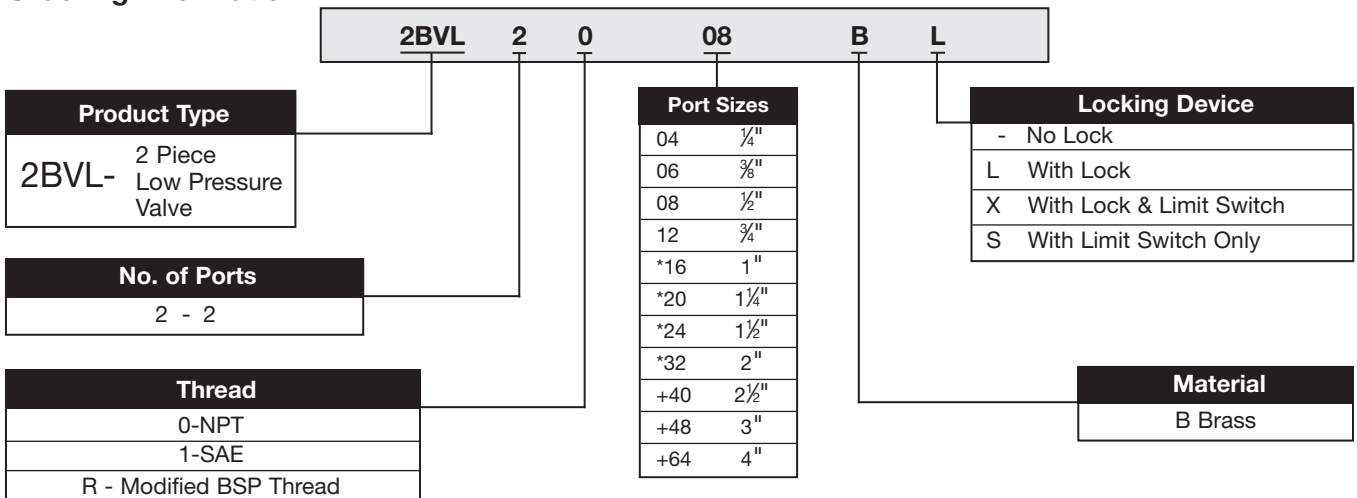
## Technical Information



Replacement Handle	*Contact Factory	R1210	R1211	R1212	R1271 2 1/2"-3" R1272 4"
	FITS 1/4", 3/8", 1/2"	FITS 3/4", 1"	FITS 1 1/4", 1 1/2"	FITS 2"	FITS 2 1/2", 3", 4"
Locking Device	BVLK-04	BVLK-12	BVLK-20	BVLK-32	BVLK-40
	FITS 1/4", 3/8", 1/2"	FITS 3/4", 1"	FITS 1 1/4", 1 1/2"	FITS 2"	FITS 2 1/2", 3", 4"

\*Order separate from valve

## Ordering Information



\* SAE Threads Available  
+ Modified BSP Available



# Low Pressure SAE Port Adaptors

## Specifications

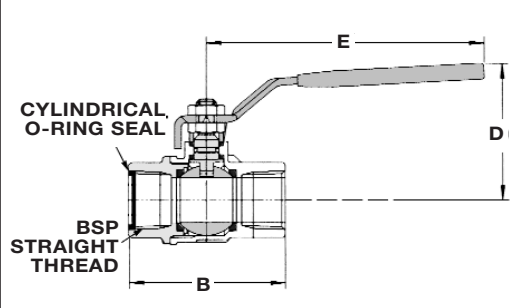
- Leak Free O-Ring Sealing to 4" with a Variety of Connection Options:
- Socket Weld
- Hose Barb (Straight 45° & 90°)
- Split Flange
- Carbon Steel Construction
- Lock Nut Design Simplifies the Positioning of Valves and Eliminates Weld Damage to Valve.
- Buna N Seals

## Options

- Viton Seals
- Step Sizes Available - Consult Factory

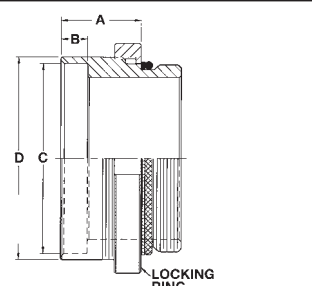


## Dimensional Information: 2½" - 4"

CYLINDRICAL O-RING SEAL BSP STRAIGHT THREAD	PART NO.	BSP SIZE			B	E	D	PSI BAR	WEIGHT
			in	mm	in	mm	in		
	2BVL-2R 40 B	2½"	in	5.59	8.07	5.02	600	8.00 lb	
			mm	142	205	127.5	40	3.66 kg	
	2BVL-2R 48 B	3"	in	6.45	8.07	5.45	600	12.90 lb	
			mm	164	205	138.5	40	5.90 kg	
	2BVL-2R 64 B	4"	in	7.60	10.23	6.34	600	22.04 lb	
			mm	193	260	161	40	10.0 kg	

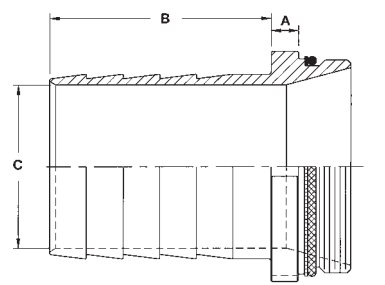
\*Note: All "O"-rings should be lubricated before assembly.

SWA - SWIVEL SOCKET WELD ADAPTOR						
Part no.	Port	Thread	A	B	C	D
SWA - 16LR	1"	1½"-12UN-2B	0.88"	0.25"	1.33"	1.63"
SWA - 20LR	1½"	1½"-12UN-2B	0.88"	0.25"	1.67"	2.00"
SWA - 24LR	1½"	1½"-12UN-2B	0.88"	0.25"	1.91"	2.25"
SWA - 32LR	2"	2½"-12UN-2B	1.00"	0.25"	2.39"	2.75"
SWA - 40LR	2½"	2½"-11BSP	1.50"	0.50"	2.89"	3.25"
SWA - 48LR	3"	3"-11BSP	1.50"	0.50"	3.51"	3.75"
SWA - 64LR	4"	4"-11BSP	1.50"	0.50"	4.51"	4.75"

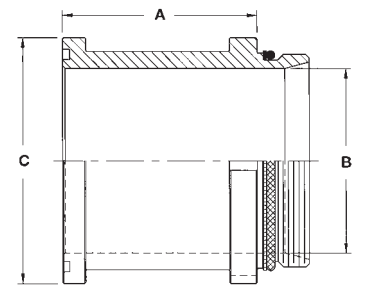


\*Note: Remove "O" ring before welding, valve should not be installed before welding adaptor.

HA - SAE TO HOSE BARB ADAPTOR					
Part no.	Port	Thread	A	B	C
HA-16	1"	1½"-12UN-2B	0.375"	1.37"	0.84"
HA-20	1½"	1½"-12UN-2B	0.40"	1.90"	1.06"
HA-24	1½"	1½"-12UN-2B	0.40"	1.94"	1.25"
HA-32	2"	2½"-12UN-2B	0.41"	2.43"	1.70"
HA-40	2½"	2½"-11BSP	0.45"	3.09"	2.15"
HA-48	3"	3"-11BSP	0.45"	3.62"	2.65"
HA-64	4"	4"-11BSP	0.45"	4.90"	3.65"

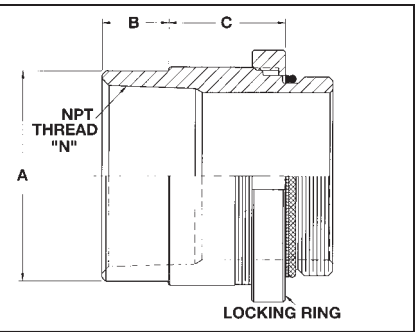


SAS - SAE TO SPLIT FLANGE (CODE 61) ADAPTOR					
Part no.	Port	Thread	A	B	C
SAS-16	1"	1½"-12UN-2B	2.40"	1.00"	1.75"
SAS-20	1½"	1½"-12UN-2B	2.72"	1.25"	2.00"
SAS-24	1½"	1½"-12UN-2B	2.72"	1.50"	2.375"
SAS-32	2"	2½"-12UN-2B	2.97"	2.00"	2.812"
SAS-40	2½"	2½"-11BSP	3.18"	2.50"	3.312"
SAS-48	3"	3"-11BSP	3.18"	3.00"	4.00"
SAS-64	4"	4"-11BSP	3.44"	4.00"	5.00"

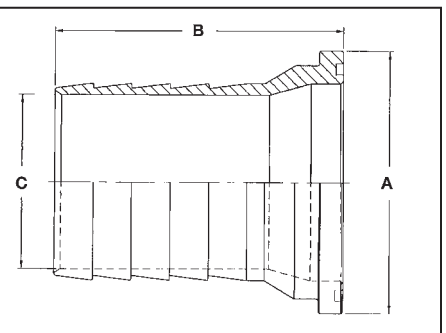




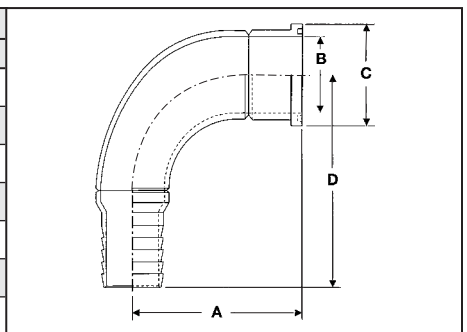
SNN - SAE SWIVEL TO NPT FEMALE ADAPTOR					
Part no.	Port	Thread	A	B	C
SNN-16	1"	1 $\frac{5}{8}$ "-12UN-2B	1.63"	0.88"	1.50"
SNN-20	1 $\frac{1}{4}$ "	1 $\frac{5}{8}$ "-12UN-2B	1.88"	0.88"	1.56"
SNN-24	1 $\frac{1}{2}$ "	1 $\frac{5}{8}$ "-12UN-2B	2.25"	0.88"	1.56"
SNN-32	2"	2 $\frac{1}{2}$ "-12UN-2B	2.75"	0.88"	1.75"
SNN-40	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "-11BSP	3.13"	1.00"	1.75"
SNN-48	3"	3"-11BSP	3.88"	1.00"	1.75"
SNN-64	4"	4"-11BSP	4.88"	1.00"	1.75"



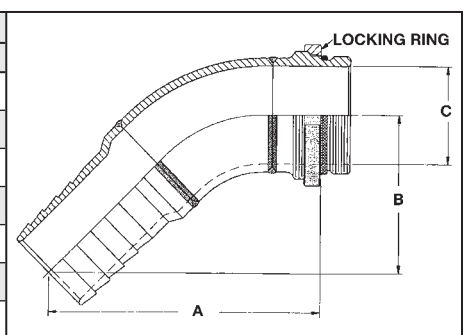
HAS - SPLIT FLANGE TO HOSE BARB ADAPTOR					
Part no.	Port	Thread	A	B	C
HAS-16	1"	CODE 61	1.75"	2.63"	0.84"
HAS-20	1 $\frac{1}{4}$ "	CODE 61	2.00"	3.00"	1.06"
HAS-24	1 $\frac{1}{2}$ "	CODE 61	2.38"	3.00"	1.25"
HAS-32	2"	CODE 61	2.81"	3.25"	1.70"
HAS-40	2 $\frac{1}{2}$ "	CODE 61	3.31"	4.00"	2.15"
HAS-48	3"	CODE 61	4.00"	4.50"	2.65"
HAS-64	4"	CODE 61	5.00"	5.00"	3.65"



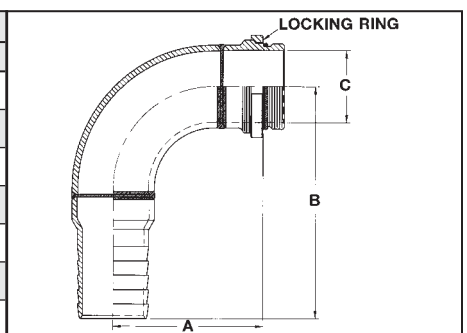
HAS 90° - SPLIT FLANGE TO HOSE BARB ELBOW 90° ADAPTOR					
Part no.	Port	A	B	C	D
HAS 90-16	1"	2.75"	1.00"	1.75"	3.63"
HAS 90-20	1 $\frac{1}{4}$ "	3.25"	1.25"	2.00"	4.63"
HAS 90-24	1 $\frac{1}{2}$ "	3.50"	1.50"	2.38"	5.00"
HAS 90-32	2"	4.25"	2.00"	2.81"	6.25"
HAS 90-40	2 $\frac{1}{2}$ "	5.50"	0.5"	3.31"	7.88"
HAS 90-48	3"	6.38"	3.00"	4.00"	9.00"
HAS 90-64	4"	8.00"	4.00"	5.00"	11.38"



HA 45° - SAE SWIVEL TO HOSE BARB ELBOW 45° ADAPTOR					
Part no.	Port	Thread	A	B	C
HA 45-16	1"	1 $\frac{5}{8}$ "-12UN-2B	3.50"	2.00"	1.00"
HA 45-20	1 $\frac{1}{4}$ "	1 $\frac{5}{8}$ "-12UN-2B	4.25"	2.50"	1.25"
HA 45-24	1 $\frac{1}{2}$ "	1 $\frac{5}{8}$ "-12UN-2B	4.38"	2.50"	1.50"
HA 45-32	2"	2 $\frac{1}{2}$ "-12UN-2B	5.38"	3.13"	2.00"
HA 45-40	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "-11BSP	7.00"	4.00"	2.50"
HA 45-48	3"	3"-11BSP	8.00"	4.64"	3.00"
HA 45-64	4"	4"-11BSP	9.50"	5.50"	4.00"



HA 90° - SAE SWIVEL TO HOSE BARB ELBOW 90° ADAPTOR					
Part no.	Port	Thread	A	B	C
HA 90-16	1"	1 $\frac{5}{8}$ "-12UN-2B	2.38"	3.63"	1.00"
HA 90-20	1 $\frac{1}{4}$ "	1 $\frac{5}{8}$ "-12UN-2B	2.75"	4.50"	1.25"
HA 90-24	1 $\frac{1}{2}$ "	1 $\frac{5}{8}$ "-12UN-2B	3.13"	5.00"	1.50"
HA 90-32	2"	2 $\frac{1}{2}$ "-12UN-2B	4.00"	6.25"	2.00"
HA 90-40	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "-11BSP	5.25"	8.06"	2.50"
HA 90-48	3"	3"-11BSP	6.00"	9.06"	3.00"
HA 90-64	4"	4"-11BSP	7.75"	11.38"	4.00"

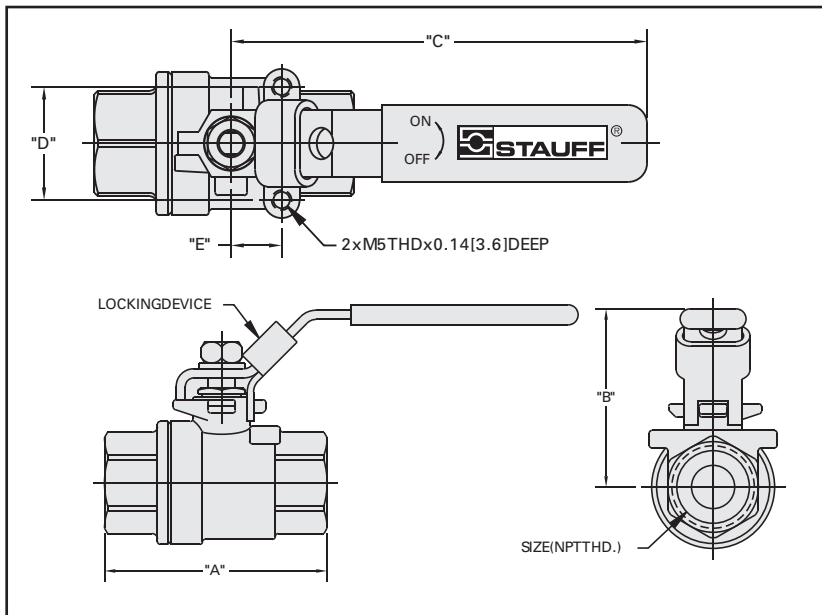


## Specifications

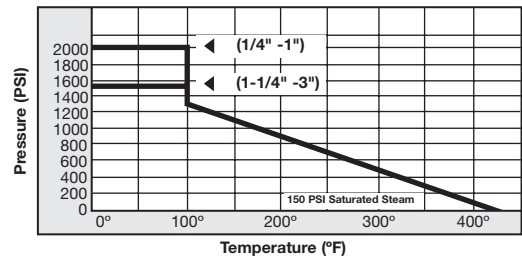
- 2-Piece Body 316 Stainless Steel
- Full Port
- Screwed End
- Blowout-Proof Stem
- Adjustable Packing Nut
- Locking Level Handle
- Actuator Mounting Pad
- 2000 PSI (138 bar) WOG (See Chart)
- Threads to ANSI B2.1
- Size Range 1/4" to 3" NPT



## Dimensional Information



## Pressure / Temp. Rating



Inch (mm)

Stauff #	Size (NPT)	A	B	C	D	E
2BVM20041144C/LD	1/4" NPT	2.17 (55,0)	1.89 (48,0)	4.72 (120,0)	1.12 (28,5)	0.50 (12,7)
2BVM20061144C/LD	3/8" NPT	2.17 (55,0)	1.89 (48,0)	4.72 (120,0)	1.12 (28,5)	0.50 (12,7)
2BVM20081144C/LD	1/2" NPT	2.40 (61,0)	1.93 (49,0)	4.72 (120,0)	1.12 (28,5)	0.50 (12,7)
2BVM20121144C/LD	3/4" NPT	3.15 (80,0)	2.17 (55,0)	5.12 (130,0)	1.38 (35,0)	0.87 (22,1)
2BVM20161144C/LD	1" NPT	3.50 (89,0)	2.72 (69,0)	6.10 (155,0)	1.38 (35,0)	0.87 (22,1)
2BVM20201144C/LD	1-1/4" NPT	3.78 (96,0)	3.03 (77,0)	6.10 (155,0)	1.50 (38,0)	0.93 (23,6)
2BVM20241144C/LD	1-1/2" NPT	4.61 (117,0)	3.31 (84,0)	7.28 (185,0)	1.50 (38,0)	0.93 (23,6)
2BVM20321144C/LD	2" NPT	5.51 (140,0)	3.66 (93,0)	7.28 (185,0)	1.50 (38,0)	0.93 (23,6)
2BVM20401144C/LD	2-1/2" NPT	6.50 (165,0)	5.43 (138,0)	9.84 (250,0)	2.17 (55,0)	1.38 (35,0)
2BVM20481144C/LD	3" NPT	7.56 (192,0)	6.10 (155,0)	11.02 (280,0)	2.17 (55,0)	1.38 (35,0)

Note - Designs and materials are subject to change without notice.

## Specifications

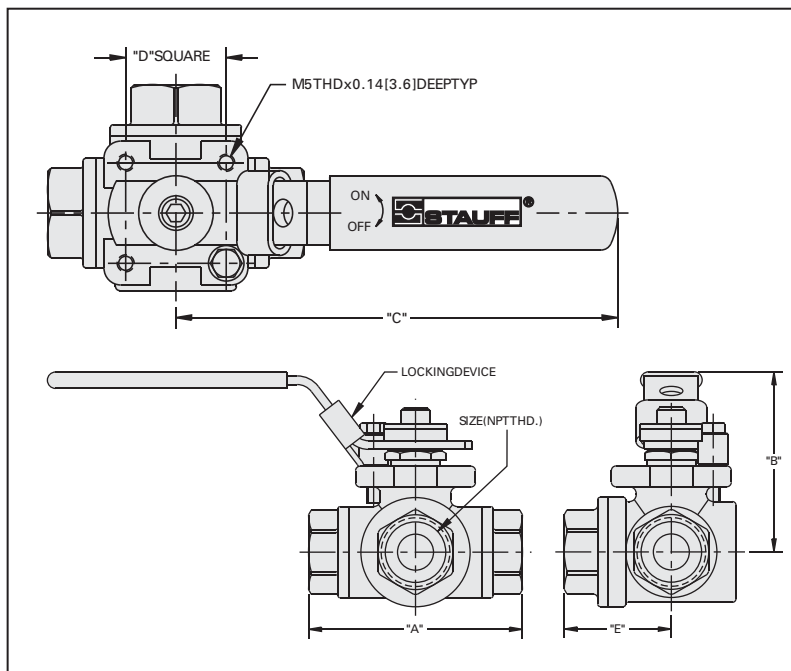
- 2 Piece Stainless Body, Diverter Style
- "L" Bore
- Adjustable Rotary Stem Seals provide long term, leak-free operation.
- Mounting Pad allows easy and accurate mounting of actuators and position indicating devices.
- Blowout-Proof Stem Design
- Body Test Pressure: 1500 PSIG (100 bar) Hydrostatic
- Valve Design allows 360° rotation; positive position location is available at 90° increments by the valve locking device.
- Working Pressure 1000 PSI (69 bar) WOG (See Chart)
- Temperature Range: -60° to 450° F
- End Types: Threaded NPT



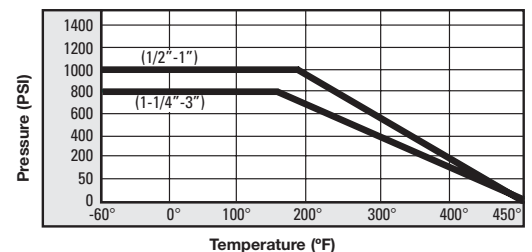
## Options

- Also Available in "T" Bore

## Dimensional Information



## Pressure/Temp. Rating



Inch (mm)

Stauff #	Size (NPT)	A	B	C	D	E
2BVM30081144C/LD	1/2" NPT	2.36 (60,0)	2.20 (56,0)	3.78 (96,0)	1.13 (28,7)	1.50 (38,1)
2BVM30121144C/LD	3/4" NPT	2.91 (74,0)	2.52 (64,0)	4.92 (125,0)	1.38 (35,0)	1.72 (43,7)
2BVM30161144C/LD	1" NPT	3.23 (82,0)	2.60 (66,0)	4.92 (125,0)	1.38 (35,0)	1.98 (50,3)
2BVM30241144C/LD	1-1/2" NPT	4.49 (114,0)	3.27 (83,0)	5.71 (145,0)	1.50 (38,1)	2.52 (64,0)
2BVM30321144C/LD	2" NPT	5.59 (142,0)	3.46 (88,0)	8.07 (205,0)	1.50 (38,1)	2.97 (75,4)

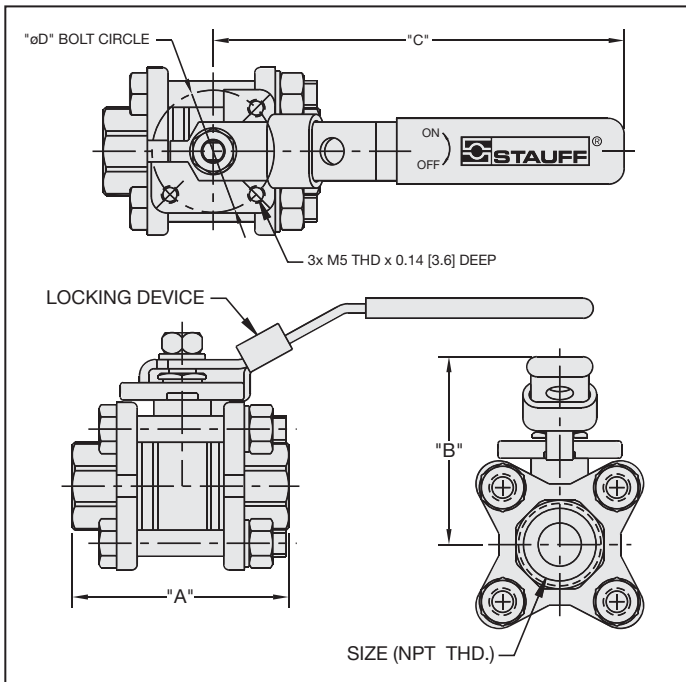
Note - Designs and materials are subject to change without notice.

## Specifications

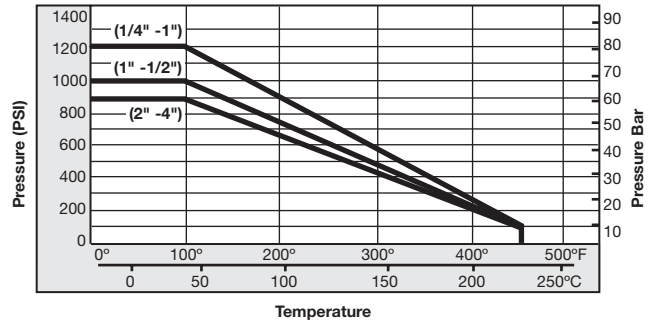
- 3-Piece Body - Tie-Rod Design
- ISO 5211 Standard Actuator Mounting Pad
- Full Port
- Blowout-Proof Stem
- Adjustable Packing Nut
- Locking Handle
- Readily Adapts to Automation
- Floating Ball
- Working Pressure -1000 PSI (69 bar) WOG (See Chart)
- Threads to ANSI B2.1
- Size Range 1/2" to 3"
- Repair Kits in Stock



## Dimensional Information



## Pressure / Temp. Rating



Inch (mm)

Stauff #	Size (NPT)	A	B	C	D
3BVM20081144C/LD	1/2" NPT	2.76 (70,0)	2.13 (54,0)	5.12 (130,0)	1.42 (36,0)
3BVM20121144C/LD	3/4" NPT	3.35 (85,0)	2.32 (59,0)	5.12 (130,0)	1.65 (42,0)
3BVM20161144C/LD	1" NPT	3.74 (95,0)	2.95 (75,0)	6.10 (155,0)	1.65 (42,0)
3BVM20201144C/LD	1-1/4" NPT	4.33 (110,0)	3.15 (80,0)	6.10 (155,0)	1.97 (50,0)
3BVM20241144C/LD	1-1/2" NPT	5.12 (130,0)	3.35 (85,0)	7.28 (185,0)	2.76 (70,0)
3BVM20321144C/LD	2" NPT	5.91 (150,0)	3.74 (95,0)	7.68 (195,0)	2.76 (70,0)
3BVM20481144C/LD	3" NPT	8.35 (212,0)	5.24 (133,0)	9.84 (250,0)	4.02 (102,0)

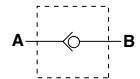
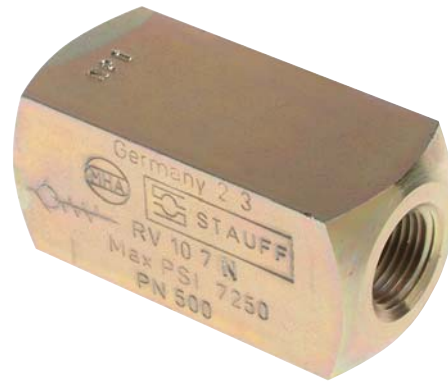
Note - Designs and materials are subject to change without notice.

## Specifications

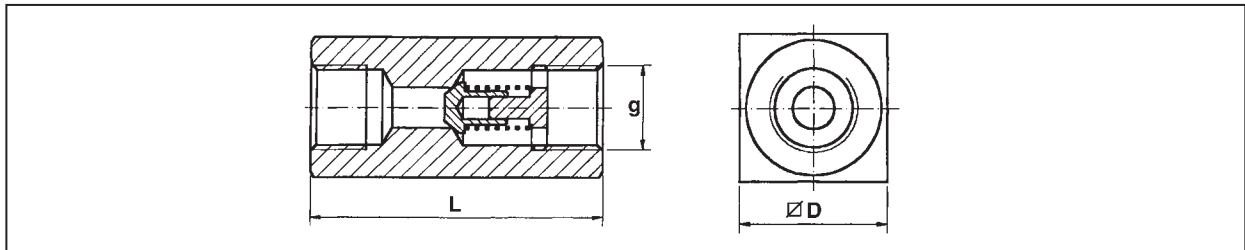
- Sizes to 2"
- Carbon Steel Body, Zinc Plated
- Working Pressure to 7250 PSI (500 bar)
- Metal to Metal Seat

## Options

- NPT or SAE
- Two Spring Cracking Pressures - 7 PSI (0.5 bar) or 65 PSI (4.5 bar)
- Special Spring Cracking Pressures Available On Request

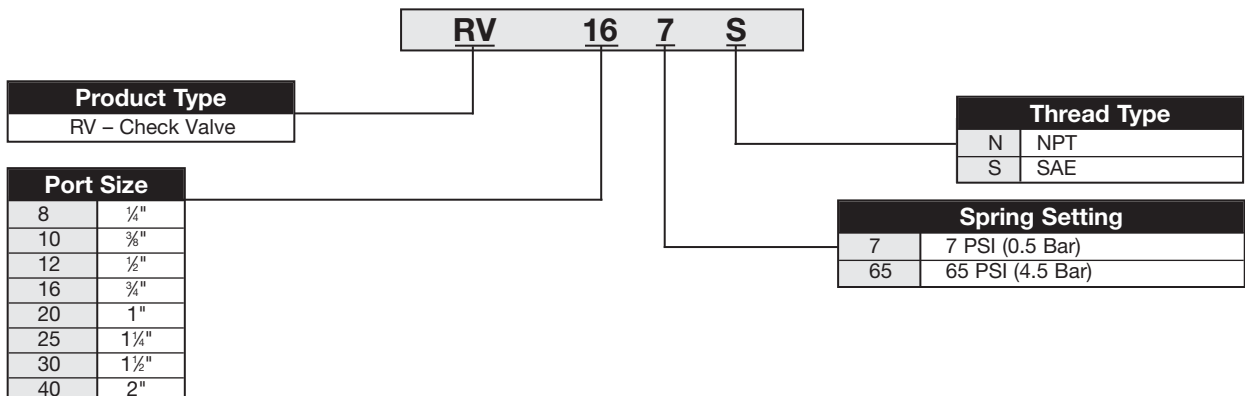


## Dimensional Information



Nominal Size	DN		Port G		Operating Pressure		D		L		Weight	
	mm	in	NPT	SAE	Bar	PSI	mm	in	mm	in	kg	lbs
RV8	8	0.31	1/4"NPT	7/16"-20	500	7250	25	.98	55	2.17	0.2	0.44
RV10	10	0.39	3/8"NPT	9/16"-18	500	7250	30	1.18	65	2.56	0.4	0.88
RV12	12	0.47	1/2"NPT	3/4"-16	500	7250	35	1.38	73	2.87	0.7	1.54
RV16	16	0.63	3/4"NPT	1 1/16"-12	500	7250	45	1.77	88	3.46	1.2	2.64
RV20	20	0.79	1"NPT	1 5/16"-12	500	7250	50	1.97	127	5.00	2	4.4
RV25	25	0.98	1 1/4"NPT	1 5/8"-12	400	5800	60	2.36	143	5.63	3.3	7.26
RV30	30	1.18	1 1/2"NPT	1 7/8"-12	315	4500	70	2.75	143	5.63	4.2	9.24
RV40	40	1.57	2"NPT	2 1/2"-12	315	4500	90	3.54	165	6.49	7.2	15.84

## Ordering Information

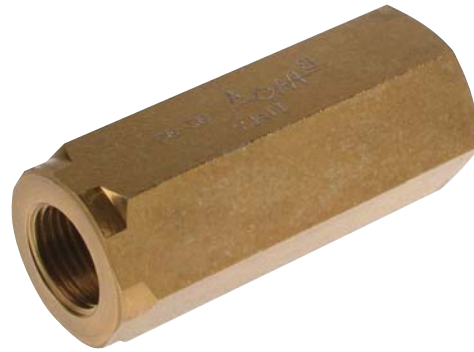


### Specifications

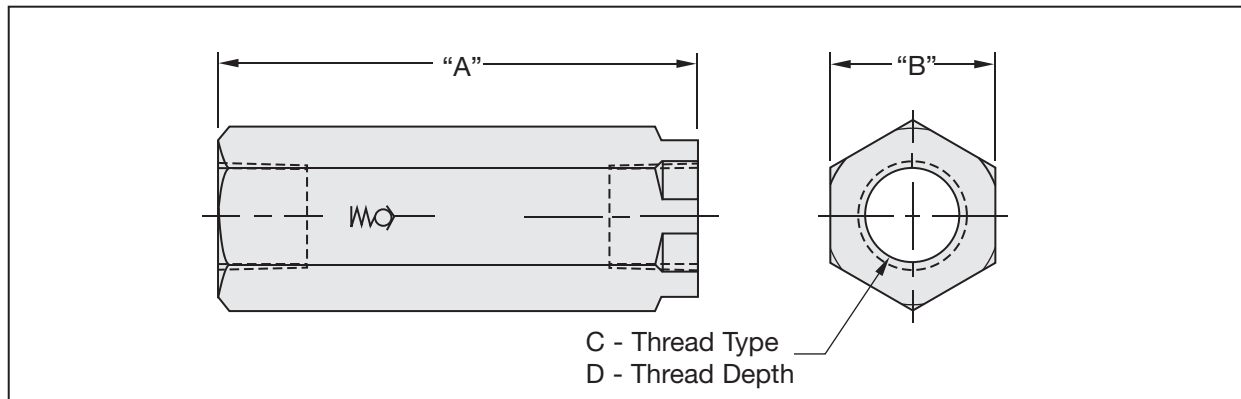
- Sizes to 3/4" NPT
- Carbon Steel Body, Zinc Plated
- Working Pressure to 5000 PSI (350 bar)
- Metal to Metal Seat

### Options

- Field replaceable springs available with 30 PSI or 60 PSI settings

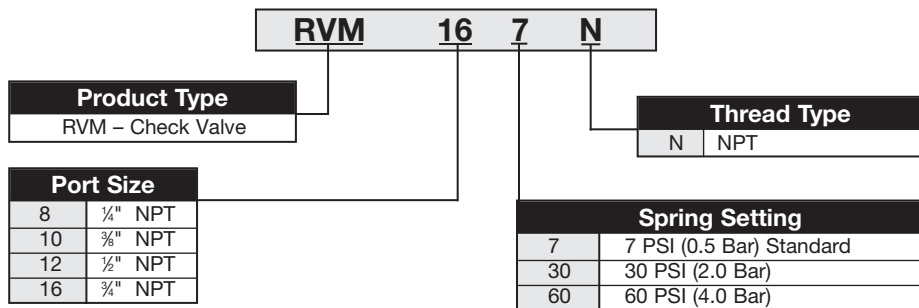


### Dimensional Information



Part Number	A - Length		B - Width		C - Port Diameter	D - Thread Depth		Operating Pressure		Weight	
	mm	in	mm	in	NPT	mm	in	Bar	PSI	kg	lbs
RVM8-7N	63.0	<b>2.48</b>	22	<b>0.87</b>	1/4" NPT	12.5	<b>0.49</b>	350	<b>5000</b>	0.2	<b>0.44</b>
RVM10-7N	69.0	<b>2.71</b>	27	<b>1.06</b>	3/8" NPT	12.5	<b>0.49</b>	350	<b>5000</b>	0.4	<b>0.88</b>
RVM12-7N	80.5	<b>3.17</b>	32	<b>1.26</b>	1/2" NPT	15.5	<b>0.61</b>	350	<b>5000</b>	0.7	<b>1.54</b>
RVM16-7N	99.5	<b>3.92</b>	36	<b>1.42</b>	3/4" NPT	17.0	<b>0.67</b>	350	<b>5000</b>	1.2	<b>2.64</b>

### Ordering Information



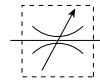
REPLACEMENT SPRINGS	
Part #	Description
RVM-8-30	30 PSI Spring
RVM-8-60	60 PSI Spring
RVM-10-30	30 PSI Spring
RVM-10-60	60 PSI Spring
RVM-12-30	30 PSI Spring
RVM-12-60	60 PSI Spring
RVM-16-30	30 PSI Spring
RVM-16-60	60 PSI Spring

## Specifications

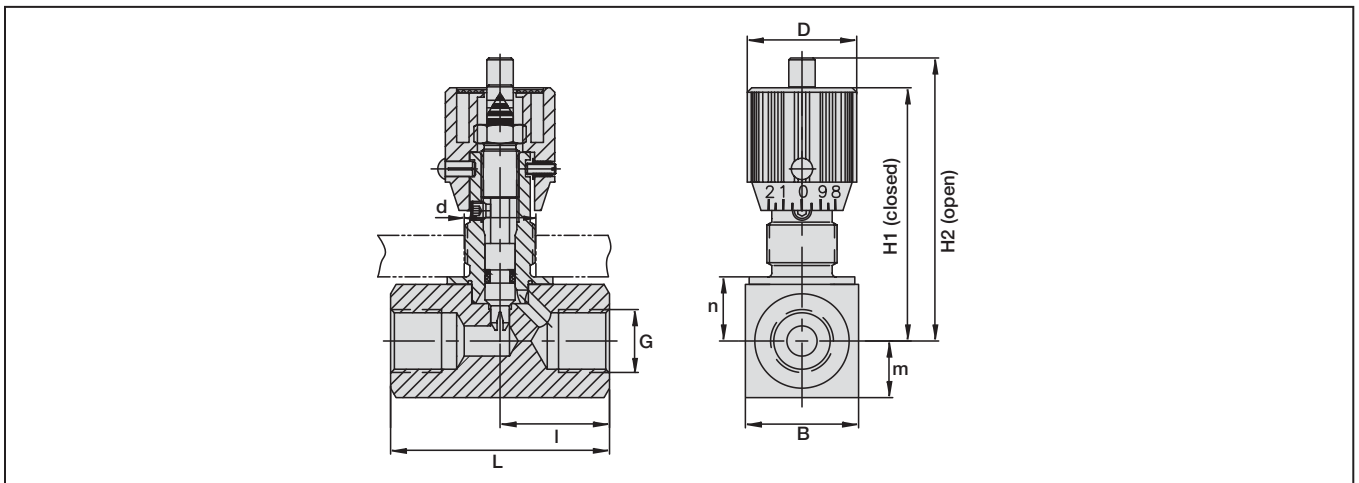
- Sizes to 1½"
- Carbon Steel Body, Zinc Plated
- Viton "O"-Ring
- Temperature Range 14°F – 212°F (-10°C – 100°C)
- Working Pressure to 5000 PSI (350 bar)
- Graduated Knob and Color Coded Spindle To Accurately Control Flow
- Set-Screw Located On Side Of Knob To Lock Valve In Position

## Options

- NPT or SAE Threaded Connection
- Panel Mounting Kit Available (See Page V56)
- Special Seals Available On Request



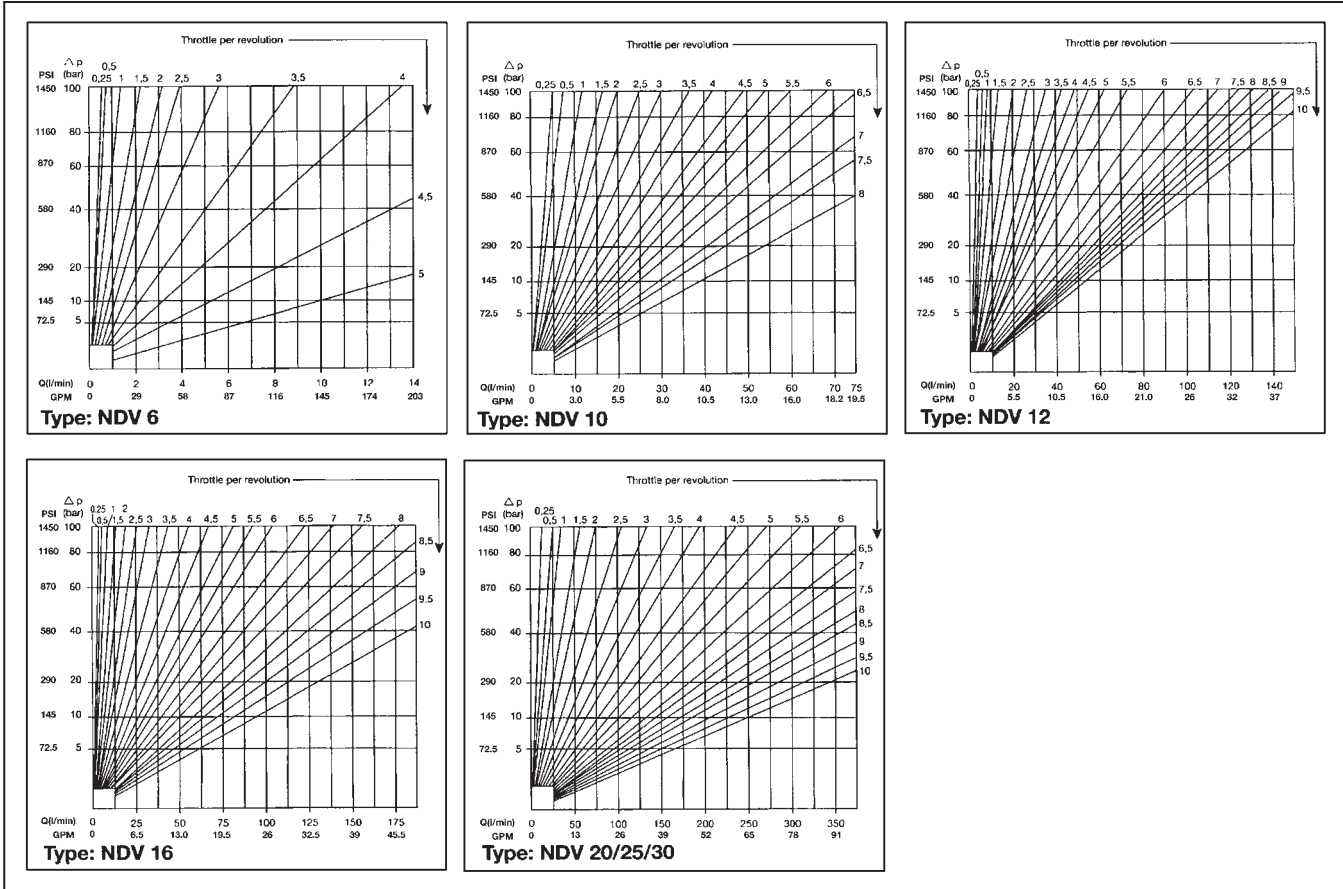
## Dimensional Information



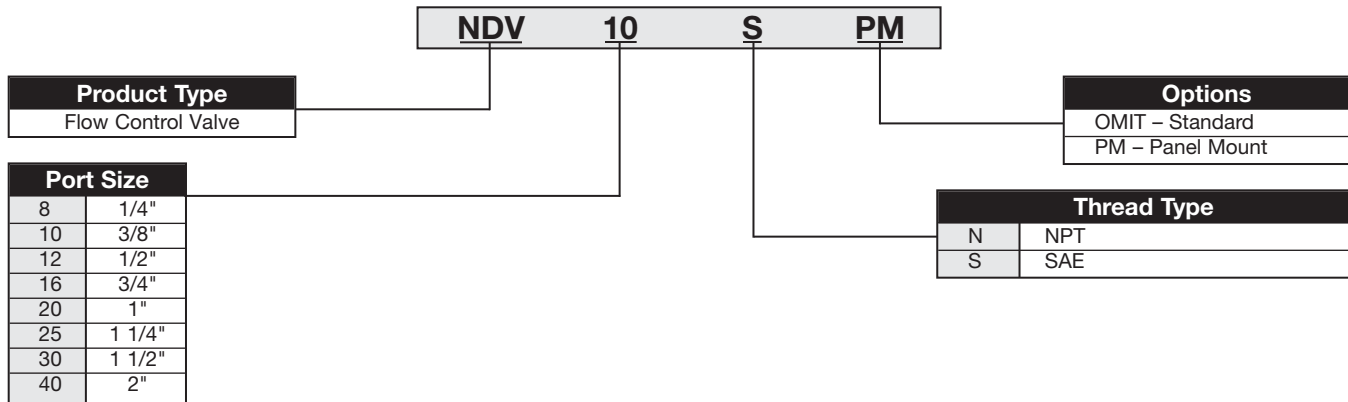
Nominal Size	DN		Port G		Operating Pressure		H2 Open		H1 Closed		m		n		B		I		L		D		d		Weight	
	mm	in	NPT	SAE	BAR	PSI	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
NDV8	8	0.31	¼" NPT	¼"-20	350	5000	71	2.80	65	2.56	12,5	0.49	14,5	0.57	25	0.98	33,5	0.94	55	1.89	29	1.14	19	0.75	0.25	0.55
NDV10	10	0.39	⅜" NPT	⅜"-18	350	5000	75	2.95	68	2.68	15	0.59	17	0.67	30	1.18	41	1.14	65	2.28	29	1.14	19	0.75	0.40	0.88
NDV12	12	0.47	½" NPT	½"-16	350	5000	92	3.62	82	3.23	17,5	0.69	21	0.83	35	1.38	44	1.34	73	2.68	38	1.50	23	0.91	0.70	1.54
NDV16	16	0.63	¾" NPT	1½"-12	350	5000	106	4.17	96	3.78	22,5	0.89	26	1.02	45	1.77	57	1.54	88	3.07	38	1.50	23	0.91	1.20	2.64
NDV20	20	0.79	1" NPT	1½"-12	350	5000	149	5.87	132	5.20	25	0.98	30	1.18	50	1.97	77	2.13	127	4.25	55	2.17	38	1.50	2.10	4.62
NDV25	25	0.98	1¼" NPT	1½"-12	350	5000	154	6.06	137	5.39	30	1.18	35	1.38	60	2.36	93	3.66	143	5.62	55	2.17	38	1.50	2.80	6.16
NDV30	30	1.18	1½" NPT	1½"-12	350	5000	159	6.26	142	5.59	35	1.38	40	1.57	70	2.75	91	3.58	143	5.62	55	2.17	38	1.50	3.50	7.70

## Technical Information

### Pressure Drop/Flow Information



## Ordering Information



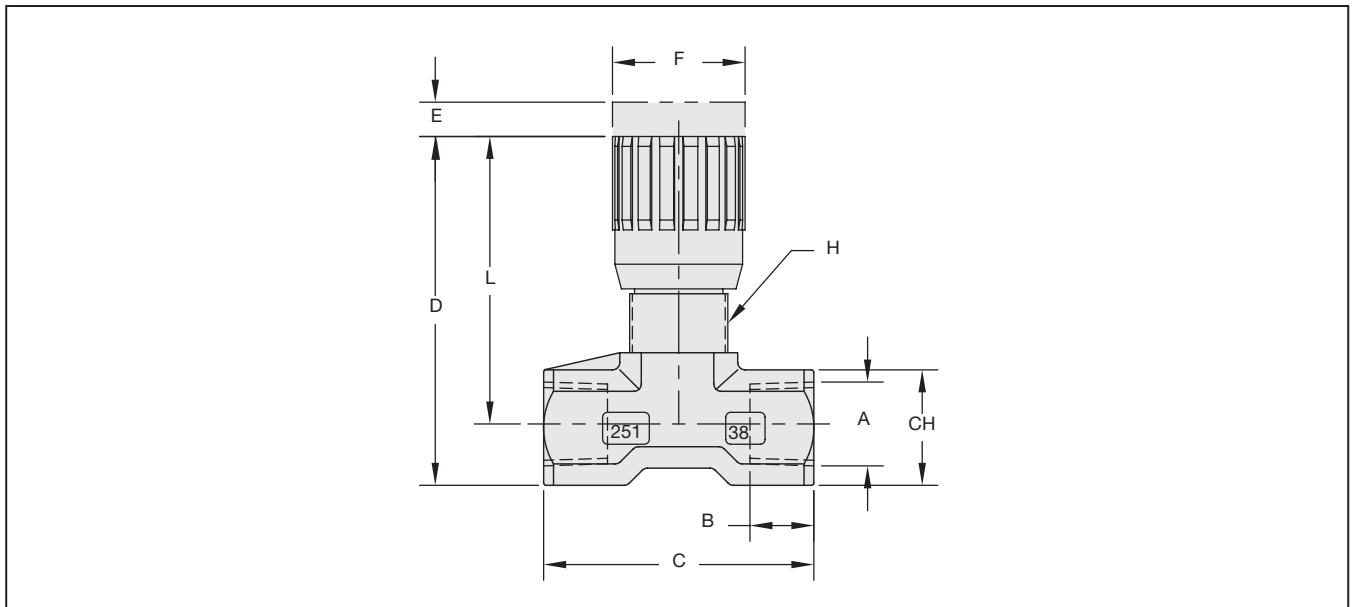
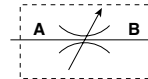


## Specifications

- Sizes to 1/4", 3/8" and 1/2" NPT, SAE
- Working Pressure 5000 PSI (350 bar)
- Nickel Plated Carbon Steel Body, Stainless Steel Needle
- Flow Setting Can Be Locked With Handle Set Screw
- Stem Seal-Buna with PTFE Back Up Ring
- Temperature range: -30°F to 250°F (-34°C to 121°C)

## Options

- VITON Seals
- Panel Mount Lock Nut (See Page V56)
- BSP Ports Available



## Dimensions

Part Number	Thread A	B		C		D		E		F		Thread H	L		Square CH		Weight	
		mm	in	mm	in	mm	in	mm	in	mm	in		mm	in	mm	in	kg	lbs
NVH-8N	1/4" NPT	12		46		61		4,5		22		M17X1	52,5		17		0.12	
NVH-8S	1/4" SAE		0.47		1.81		2.40		0.18		0.87			2.07		0.67		0.26
NVH-10N	3/8" NPT	13		55		74		7		27		M20X1	63		22		0.23	
NVH-10S	3/8" SAE		0.51		2.17		2.91		0.28		1.06			2.48		0.97		0.51
NVH-12N	1/2" NPT	16.70		82		85.5		10		33		M25X1,5	72		27		0.45	
NVH-12S	1/2" SAE		0.63		2.76		3.37		0.39		1.30			2.83		1.06		1.0

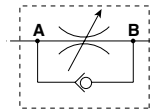
## Specifications

- Sizes to 2"
- Carbon Steel Body, Zinc Plated
- 7 PSI Standard Spring Setting
- Viton O-Ring
- Temperature Range: 14°F – 212°F (-10°C – 100°C)
- Working Pressure to 5000 PSI (350 bar)
- Graduated Knob and Color Coded Spindle To Accurately Control Flow
- Set-Screw Located On Side Of Knob To Lock Valve In Position

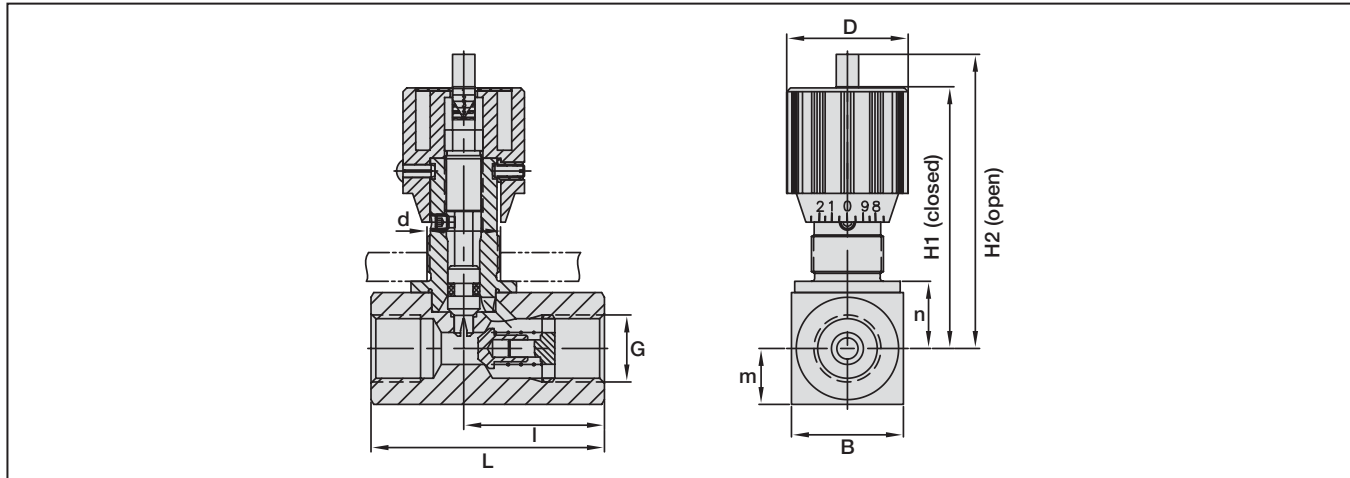


## Options

- NPT or SAE Threaded Connection
- Panel Mounting Kit Available (See Page V56)
- Special Seals Available Upon Request
- Special Spring Settings Upon Request



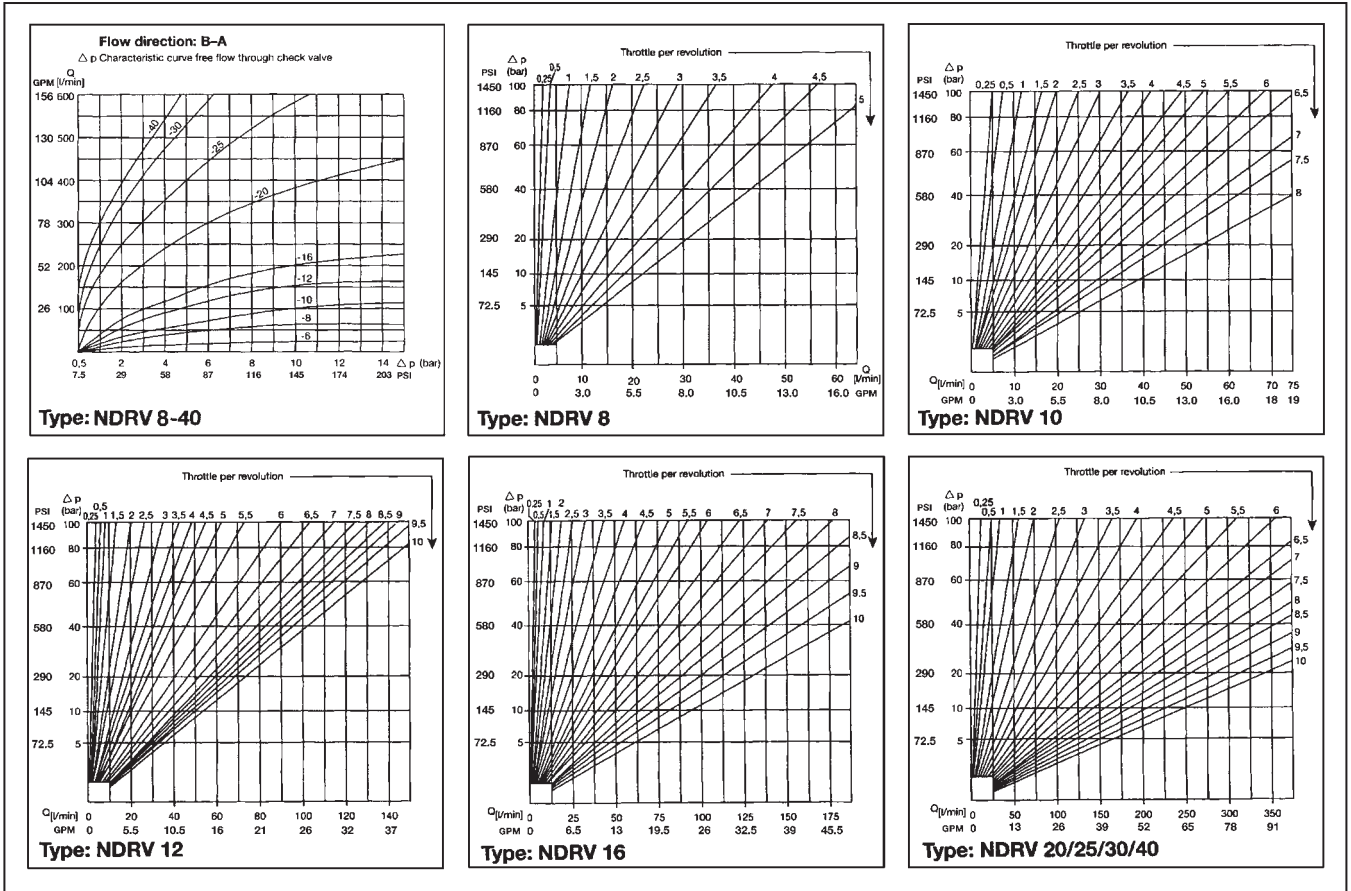
## Dimensional Information



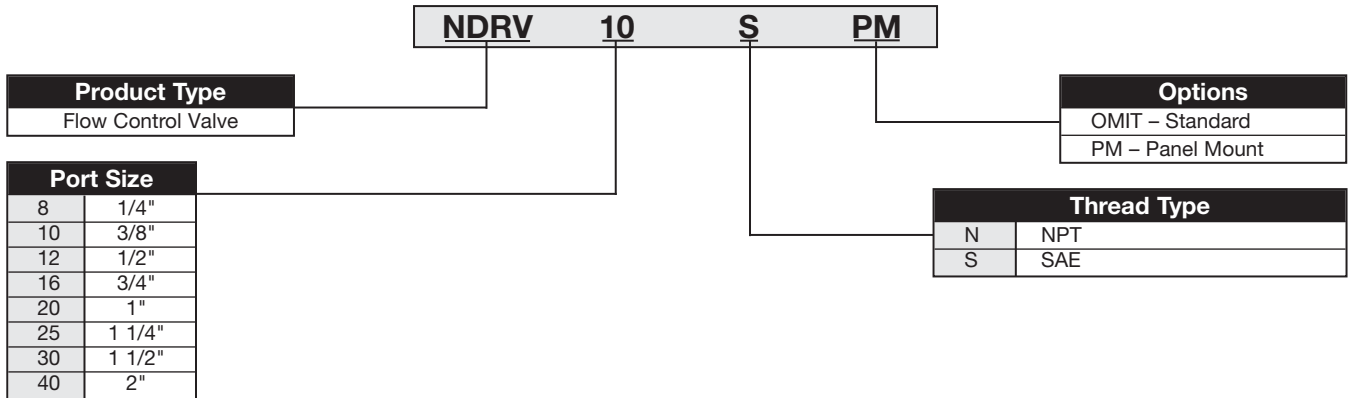
Nominal Size	DN		Port G		Operating Pressure		H2 Open		H1 Closed		m		n		B		I		L		D		d		Weight	
	mm	in	NPT	SAE	BAR	PSI	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
NDRV8	8	0.31	¼" NPT	¼"-20	350	5000	71	2.80	65	2.56	12,5	0.49	14,5	0.57	25	0.98	33,5	0.94	55	1.89	29	1.14	19	0.75	0.30	0.66
NDRV10	10	0.39	¼" NPT	¼"-18	350	5000	75	2.95	68	2.68	15	0.59	17	0.67	30	1.18	41	1.14	65	2.28	29	1.14	19	0.75	0.45	0.99
NDRV12	12	0.47	½" NPT	½"-16	350	5000	92	3.62	82	3.23	17,5	0.69	21	0.83	35	1.38	44	1.34	73	2.68	38	1.50	23	0.91	0.80	1.76
NDRV16	16	0.63	¾" NPT	1½"-12	350	5000	106	4.17	96	3.78	22,5	0.89	26	1.02	45	1.77	57	1.54	88	3.07	38	1.50	23	0.91	1.30	2.86
NDRV20	20	0.79	1" NPT	1½"-12	350	5000	149	5.87	132	5.20	25	0.98	30	1.18	50	1.97	77	2.13	127	4.25	55	2.17	38	1.50	2.40	5.28
NDRV25	25	0.98	1½" NPT	1½"-12	350	5000	154	6.06	137	5.39	30	1.18	35	1.38	60	2.36	93	3.66	143	5.62	55	2.17	38	1.50	3.50	7.7
NDRV30	30	1.18	1½" NPT	1½"-12	350	5000	159	6.26	142	5.59	35	1.38	40	1.57	70	2.75	91	3.58	143	5.62	55	2.17	38	1.50	4.60	10.12
NDRV40	40	1.57	2" NPT	2½"-12	350	5000	169	6.65	152	5.98	40	1.57	50	1.97	90	3.55	111	4.37	165	6.50	55	2.17	38	1.50	7.70	16.94

## Technical Information

### Pressure Drop/Flow Information



### Ordering Information

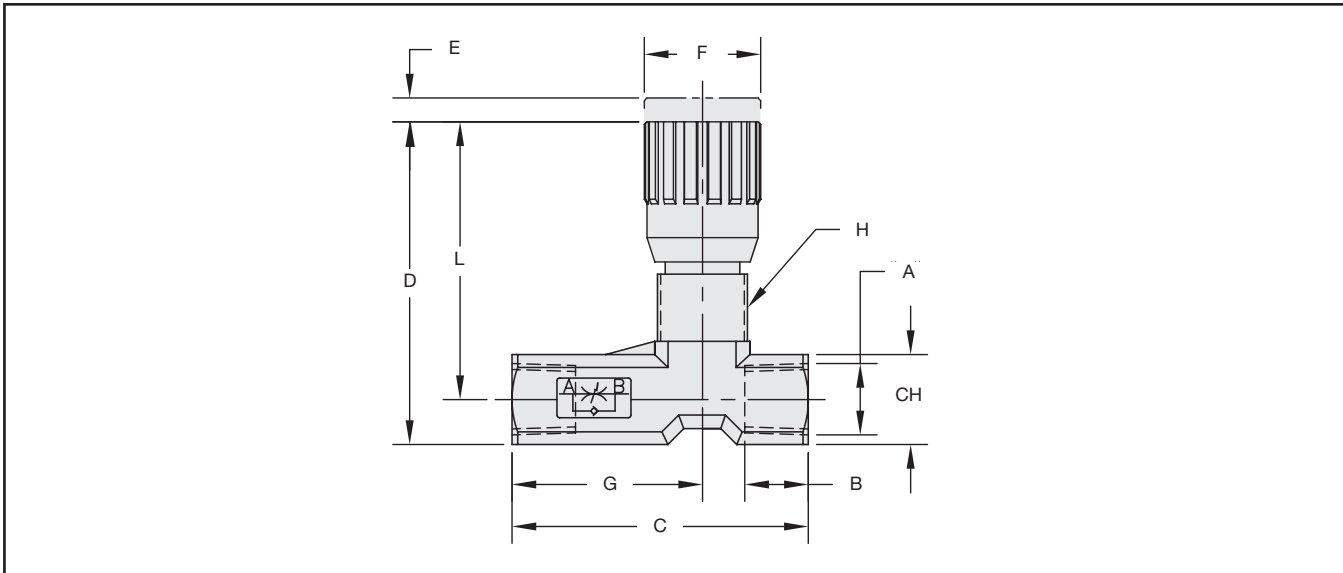
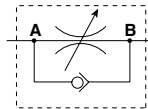


## Specifications

- Sizes to 1/4", 3/8" and 1/2"
- NPT or SAE Threads
- Working Pressure 5000 PSI (350 bar)
- Nickel Plated Carbon Steel Body, Stainless Steel Needle
- Flow Setting Can Be Locked With Handle Set Screw
- Stem Seal-Buna With PTFE Back Up Ring
- Temperature range: -30°F to 250°F (-34°C to 121°C)

## Options

- VITON Seals
- Panel Mount Lock Nut (See Page V56)
- BSP Ports Available



## Dimensions

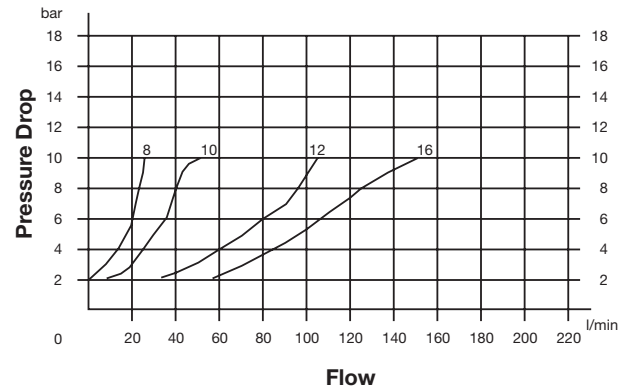
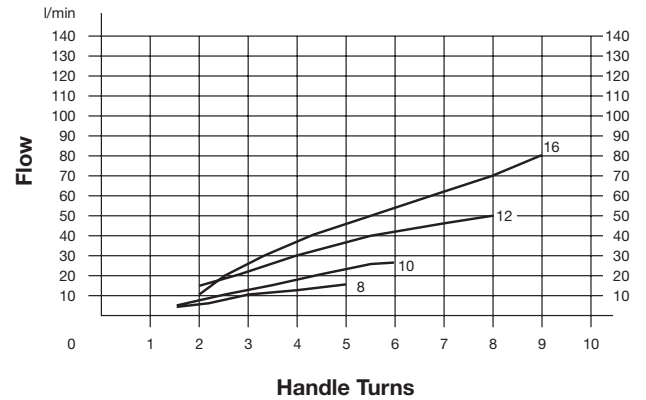
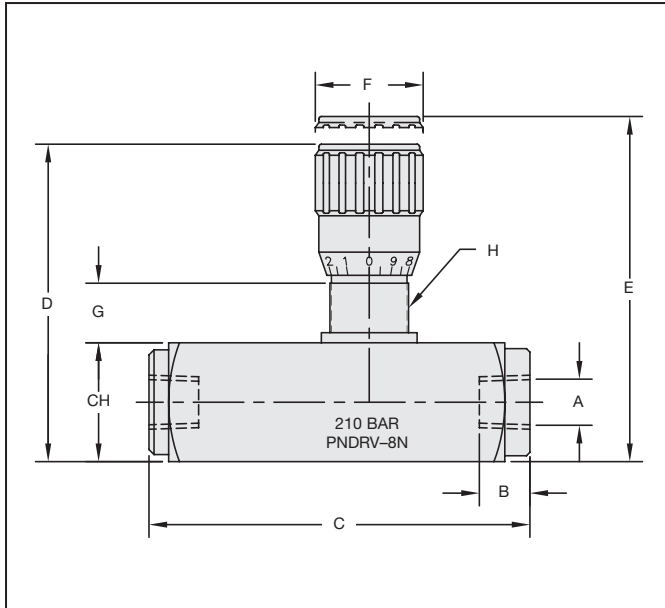
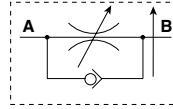
Part Number	Thread A	B		C		D		E		F		G	H	L		CH		Weight	
		mm	in	mm	in	mm	in	mm	in	mm	in			mm	in	mm	in	kg	lbs
FCH-8N	1/4" NPT	12		56		61		4,5		22		36	M17X1	52,5		17		0.14	
FCH-8S	1/4" SAE		0.47		2.20		2.40		0.18		0.87		1.42		2.07		0.67		0.31
FCH-10N	3/8" NPT	13		64,5		74		7		27		41,5	M20X1	63		22		0.26	
FCH-10S	3/8" SAE		0.51		2.54		2.91		0.28		1.06		1.63		2.48		0.97		0.57
FCH-12N	1/2" NPT	16		87		85,5		10		33		57	M25X1,5	72		27		0.49	
FCH-12S	1/2" SAE		0.63		3.42		3.37		0.39		1.30		2.24		2.83		1.06		1.08

## Specifications

- Sizes to 1/4", 3/8", 1/2" and 3/4" NPT
- Working Pressure 3000 PSI (200 bar)
- Carbon Steel Body, Stainless Steel Internal Components
- Stem Seal-Buna With PTFE Back Up Ring
- Temperature range: -30°F to 250°F (-34°C to 121°C)

## Options

- VITON Seals
- Panel Mount Lock Nut (See Page V56)



## Dimensions

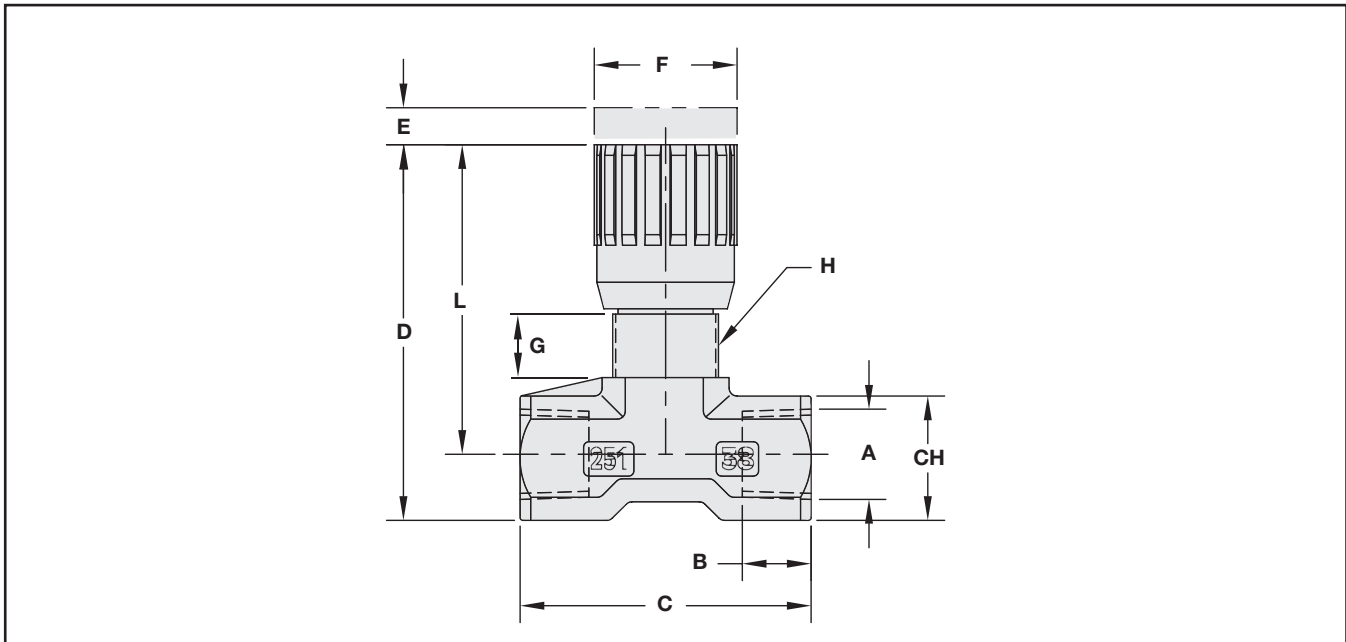
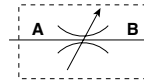
Part Number	Thread A	B		C		D		E		F		G		Thread H	CH		Weight	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		in	mm	lb	kg
PNDRV-8N PNDRV-8S	1/4" NPT SAE-4	0.49	12,5	3.70	94	3.21	81,5	3.48	88,5	1.06	27	0.59	15	M20X1 M20X1	1.18	30	1.28	0.58
PNDRV-10N PNDRV-10S	3/8" NPT SAE-6	0.51	13	4.35	110,5	3.72	94,5	4.06	103	1.30	33	0.67	17	M25X1,5 M25X1,5	1.38	35	2.07	0.94
PNDRV-12N PNDRV-12S	1/2" NPT SAE-8	0.61	15,5	5.39	137	4.41	112	4.80	122	1.50	38	0.71	18	M20X1,5	1.77	45	4.03	1.83
PNDRV-16N PNDRV-16S	3/4" NPT SAE-12	0.67	17	6.42	163	5.43	138	5.91	150	1.85	47	0.94	24	M40X1,5 M40X1,5	2.17	55	7.37	3.35

### Specifications

- Sizes to 1/4", 3/8" and 1/2" NPT, SAE, and BSP
- Working Pressure 3000 PSI (200 bar)
- Nickel Plated Brass Body, Stainless Steel Needle
- Flow Setting Can Be Locked With Handle Set Screw
- Stem Seal-Buna with PTFE Back Up Ring
- Temperature range: -30°F to 250°F (-34°C to 121°C)

### Options

- VITON Seals
- Panel Mount Lock Nut (See Page V56)



### Dimensions

Part Number	Thread A	B		C		D		E		F		G		H	L		CH		Weight	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in		mm	in	mm	in	kg	lb
NVM-8B	1/4" BSP	12	/	46	/	57	/	4,5	/	22	/	11,5	/	M17X1	11	/	17	/	0.12	/
NVM-8N	1/4" NPT																			
NVM-8S	-4 SAE	0.47		1.81		2.24		0.18		0.87		0.45			0.43		0.67		0.26	
NVM-10B	3/8" BSP	13	/	55	/	69	/	7	/	27	/	12,5	/	M20X1	15	/	22	/	0.23	/
NVM-10N	3/8" NPT																			
NVM-10S	-6 SAE	0.51		2.17		2.72		0.28		1.06		0.49			0.59		0.97		0.51	
NVM-12B	1/2" BSP	16	/	70	/	82	/	10	/	33	/	13	/	M25X1,5	19	/	27	/	0.45	/
NVM-12N	1/2" NPT																			
NVM-12S	-8 SAE	0.63		2.76		3.23		0.39		1.30		0.51			0.75		1.06		1.0	

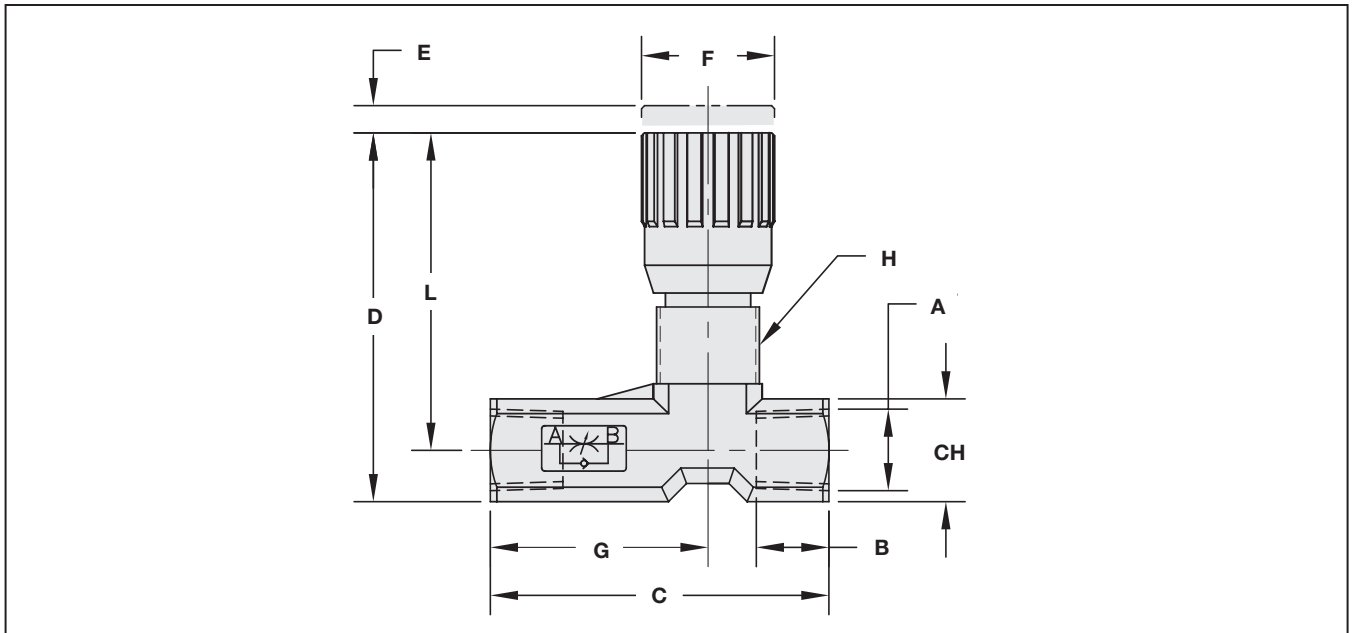
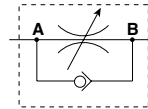
\* Consult factory for delivery on SAE, BSP Threads.

## Specifications

- Sizes to 1/4", 3/8" and 1/2"
- NPT or BSP Threads
- Working Pressure 3000 PSI (200 bar)
- Nickel Plated Brass Body, Stainless Steel Needle
- Flow Setting Can Be Locked With Handle Set Screw
- Stem Seal-Buna With PTFE Back Up Ring
- Temperature range: -30°F to 250°F (-34°C to 121°C)

## Options

- VITON Seals
- Panel Mount Lock Nut (See Page V56)



## Dimensions

Part Number	Thread A	B		C		D		E		F		G		H	L		CH		Weight		
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in		mm	in	mm	in	kg	lb	
FCM-8N	1/4" NPT	12		56		57		4,5		22		11,5		M17X1	11		17		0.14		
FCM-8B	1/4" BSP																				
FCM-8S	-4 SAE		0.47		2.20		2.24		0.18		0.87		0.45				0.43		0.67		0.31
FCM-10N	3/8" NPT	13		64,5		69		7		27		12,5		M20X1	15		22		0.26		
FCM-10B	3/8" BSP																				
FCM-10S	-6 SAE		0.51		2.54		2.72		0.28		1.06		0.49				0.59		0.97		0.57
FCM-12N	1/2" NPT	16		87		82		10		33		13		M25X1,5	19		27		0.49		
FCM-12B	1/2" BSP																				
FCM-12S	-8 SAE		0.63		3.42		3.23		0.39		1.30		0.51				0.75		1.06		1.08

\* Consult factory for delivery on SAE, BSP Threads.

Size	Valve Part Number	Thread Size	Part Number
1/4"	NDV+NDRV8	PG11	PMK-8-10-M
3/8"	NDV+NDRV10	PG11	PMK-8-10-M
1/2"	NDV+NDRV12	PG16	PMK-12-16-M
3/4"	NDV+NDRV16	PG16	PMK-12-16-M
1"	NDV+NDRV20	PG29	PMK-20-40-M
1-1/4"	NDV+NDRV25	PG29	PMK-20-40-M
1-1/2"	NDV+NDRV30	PG29	PMK-20-40-M
2"	NDV+NDRV40	PG29	PMK-20-40-M
1/4"	FCM, FCH & NVM, NVH - 8	M17X1.0	PMK-8-T
3/8"	FCM, FCH & NVM, NVH - 10	M20X1.0	PMK-810-T
1/2"	FCM, FCH & NVM, NVH - 12	M25X1.5	PMK-1012-T
1/4"	PNDRV 8N+S	M20X1.0	PMK-810-T
3/8"	PNDRV 10N+12S	M25X1.5	PMK-1012-T
1/2"	PNDRV 12N	M30X1.0	PMK-1212-T
3/4"	PNDRV 16N-S	M50X1.5	PMK-1616-T



## Specifications

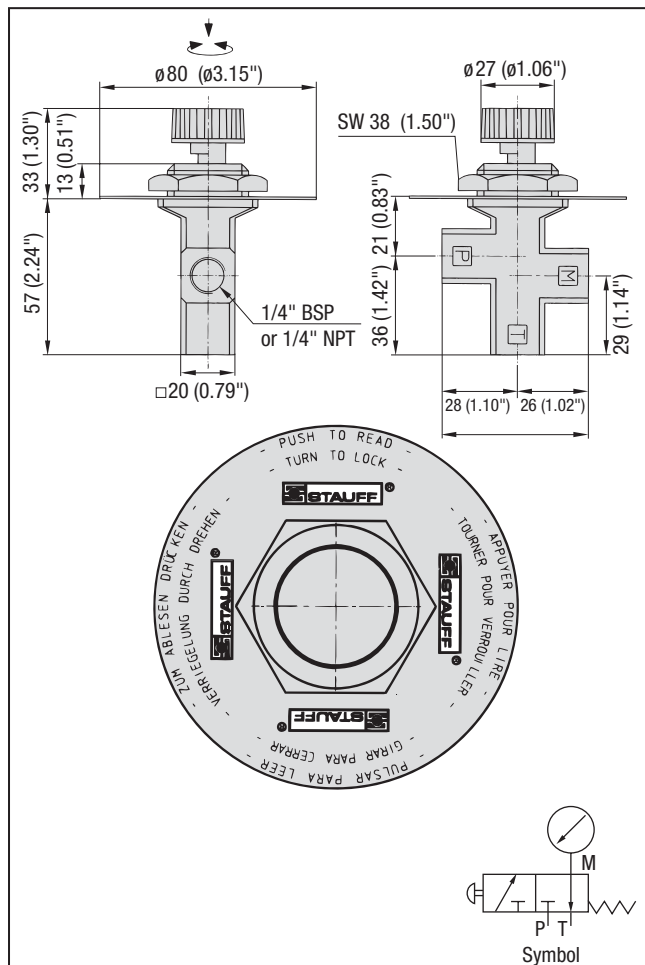
- Working Pressure 5800 PSI (390 bar)
- VITON Seals
- NPT, BSP & SAE Ports
- Temperature range:  
Style S1 and M     -30°F – 240°F  
                                  (-22°C – 115°C)
- Protects Gauges From Pressure Surges
- Steel Body
- Tank Drain Port

## Options

- Single Station – S1 Series
- Multi Station – M Series



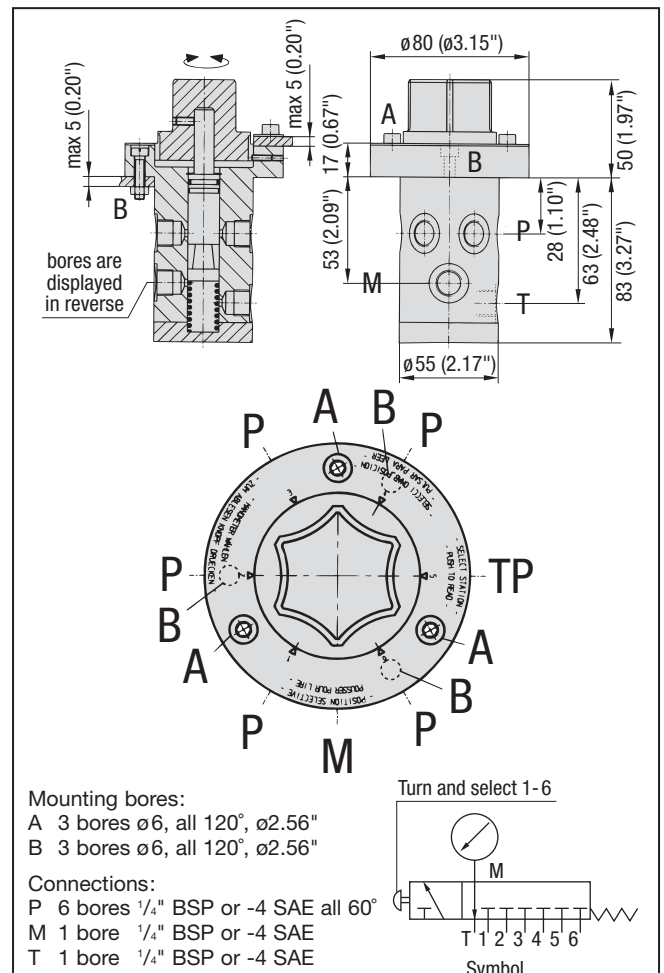
## Single Station Dimensions



Single station gauge isolator valve

Part Number	Connection
SWS-B04-S1	1/4" BSP
SWS-N04-S1	1/4" NPT (Standard)

## 6 Station Dimensions



Multi station gauge isolator valve

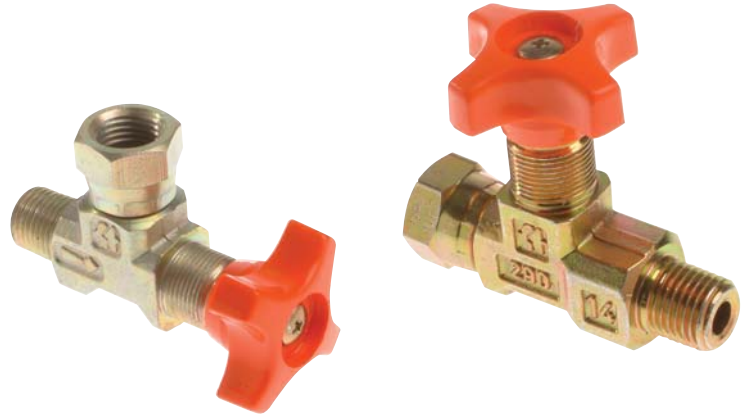
Part Number	Connection
SWS-B04-M	1/4" BSP
SWS-U04-M	-4 SAE (Standard)

## Specifications

- Sizes 1/4" NPT
- Working Pressure 6000 PSI (400 bar)
- Nickel Plated brass Body
- Stem Seal-Buna With PTFE Back Up Ring

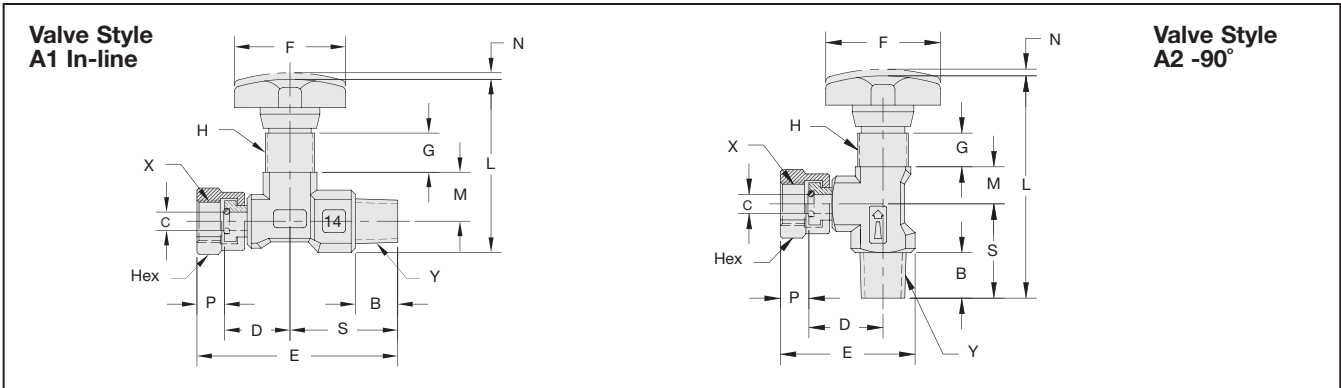
## Options

- In line or 90° Style
- NPT/SAE Version
- Panel Mount Lock Nut



## Dimensions

Thread	Valve Style	Port Female X	Port Male Y	B		C		D		E		F		G		H	L		M		N		P		S		Hex		Weight		
				mm	in	mm	in	mm	in	mm	in	mm	in	mm	in		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg
S04	A1	1/4" NPT FEMALE	1/4" SAE MALE	13	5,6	20	61,5	34	12	M15X1	53	15	2	8,5	33	18	0,13														
N04		1/4" NPT	1/4" NPT																												
B04		1/4" BSP	1/4" BSP	0,51	0,22	0,78	2,42	1,34	0,47		2,09	0,59	0,08	0,33	1,30	0,71	0,28														
B04	A2	1/4" BSP	1/4" BSP	13,5	5,6	22	40	34	10	M15X1	66	11	2	8,5	28	18	0,11														
N04		1/4" NPT	1/4" NPT	0,53	0,22	0,87	1,57	1,34	0,39		2,60	0,43	0,08	0,33	1,10	0,71	0,23														



## Ordering Information

**SWS N04 A1**

**Product Type**  
SWS-Gauge Isolator Valve

Thread Type	
N04	1/4" NPT Female - 1/4" NPT Male
S04	1/4" NPT Female - 1/4" SAE Male
B04	1/4" BSP Female - 1/4" BSP Male

\* Consult factory for delivery on BSP Threads.

Valve Style	
A1	In-line
A2	90° Version

NOTE: S04 only available in in-line version