

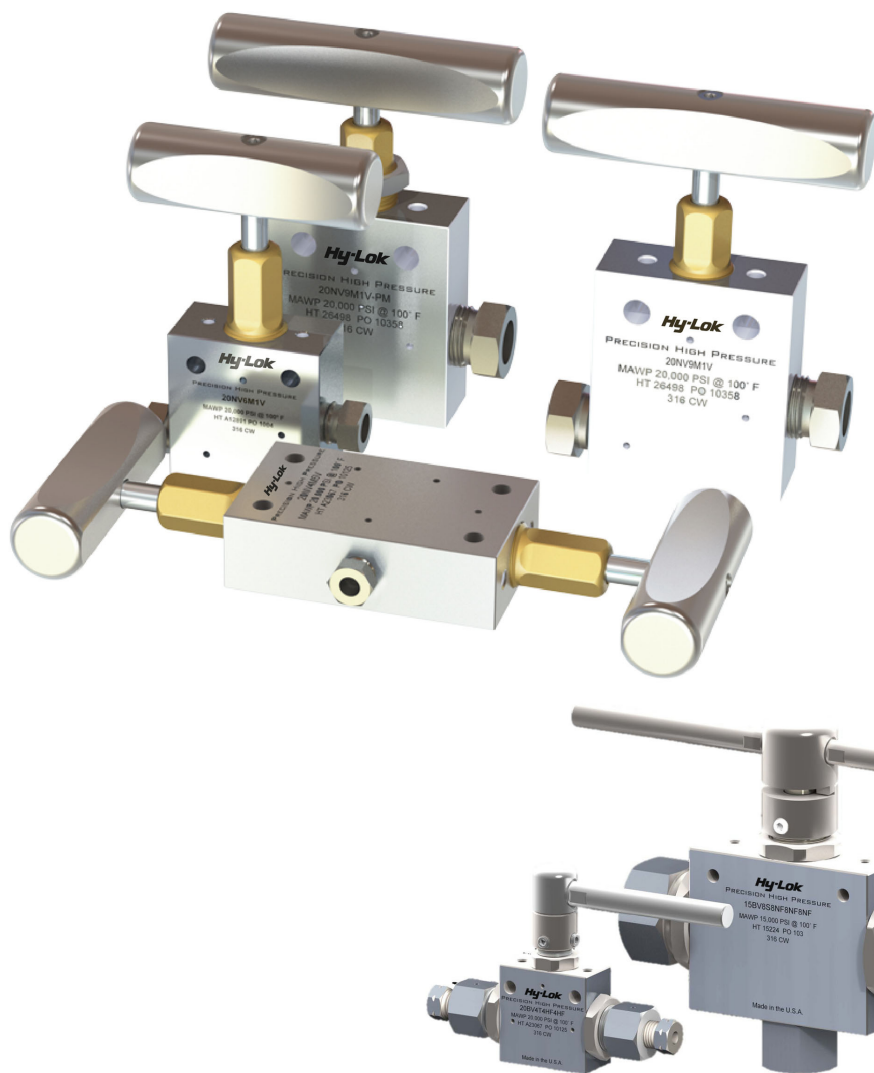


www.hy-lok.com

Catalog No. H-HPV
Jul. 2017



High Pressure Valves



HY-LOK CORPORATION

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Table of Contents

<u>Contents</u>	<u>Page</u>
NPT Valves 10,000 – 15,000 PSI	
Standard Needle Valves	1-4
Quick Open Needle Valves	5-8
Check Valves	9
Medium and High Pressure Valves 20,000 – 60,000 PSI	
Standard Needle Valves	10-16
Quick Open Needle Valves	17-23
Check Valves	24-25
Air Actuators	26-27
Ball Valves	28-33
Double Block and Bleed Valves	34
Custom Manifolds	35

NPT Needle Valves 10,000 PSI – 15,000 PSI

Specifications

- MAWP up to 15,000 PSI (1034 bar)
- Temperature Ratings: -100°F to 600°F

Features & Benefits

- Standard valve fully opens in as little as 3 1/2 turns.
- Solid stainless steel handle.
- Stainless steel captive fixing screw with stainless spring for easier handle removal. Eliminates dropped or misplaced fixing screw.
- 4-sided tapered stem for maximum handle contact. No chance of the handle slipping or loosening on stem.
- Two-piece, heavy-duty, non-rotating stem for a robust and reliable assembly.
- Bi-directional flow capability. Simplifies system designs.
- Packing gland/body thread interface consists of a preload locking internal thread form that is resistant to vibration. Eliminates the need for an external locking device.
- Double sided weep holes for easier leakage verification.
- Complete material traceability.

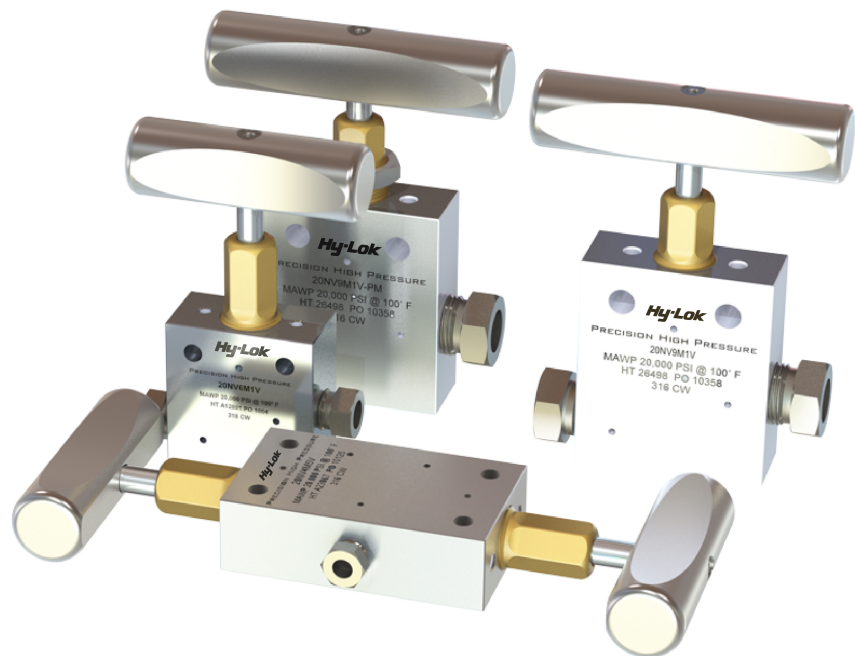
Options

- Air Actuators for Remote Valve Operation – See Page 12 or ordering information
- Can be manufactured to meet NACE MR-01-75
- Grafoil Packing for temperature up to 800°F
- Extended Stuffing Box for temperature up to 1200°F
- For Valve to be manufactured to NACE MR-01-75 add -NACE to end of part number. Pressure rating will change due to NACE, contact factory for revised pressure rating.

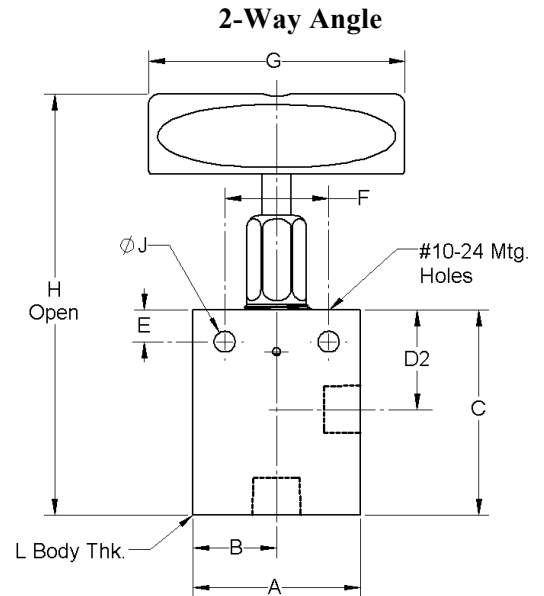
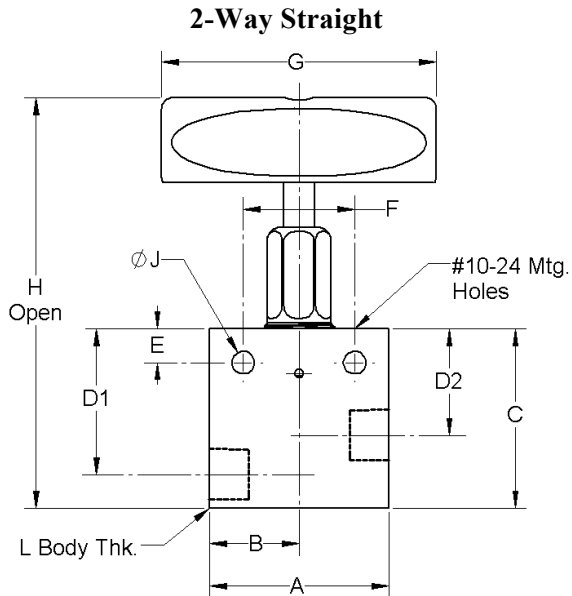
Example: 20NV6M1V-NACE

Materials

- Body - 316 cold worked stainless steel
- Packing – Glass filled Teflon
- Stem – 17-4 PH



Standard NPT Needle Valves 15,000 PSI



2-Way Straight

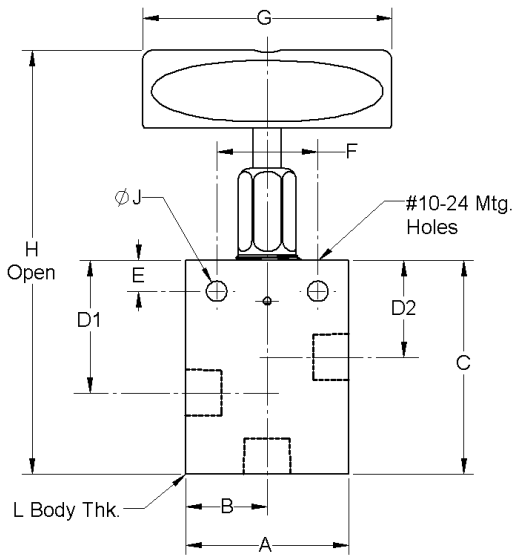
Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)										
					A	B	C	D1	D2	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NV4N1	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.63 (41.28)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	4.84 (123.0)	0.25 (6.4)	1.00 (25.4)
		3/8	15NV6N1	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	2.88 (73.2)	2.38 (60.4)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.46 (139.0)	0.34 (8.7)	1.00 (25.4)
		1/2	15NV8N1	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.00 (76.2)	2.38 (60.4)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.58 (142.0)	0.34 (8.7)	1.50 (38.1)

2-Way Angle

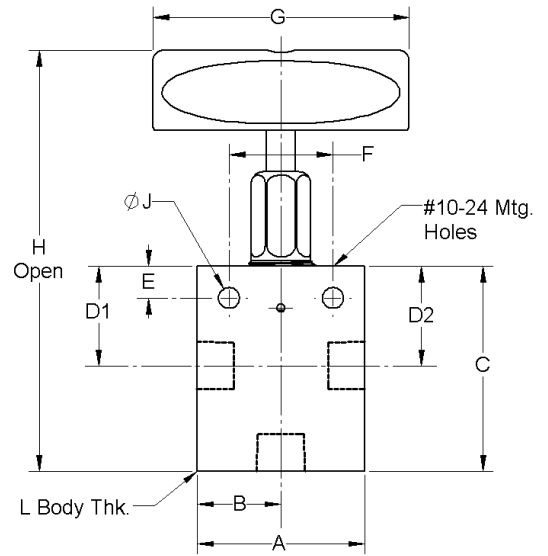
Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)									
					A	B	C	D2	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NV4N2	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	1.00 (25.4)
		3/8	15NV6N2	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.00 (25.4)
		1/2	15NV8N2	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

3-Way 2 Inlet



3-Way 2 Outlet



3-Way 2 Inlet

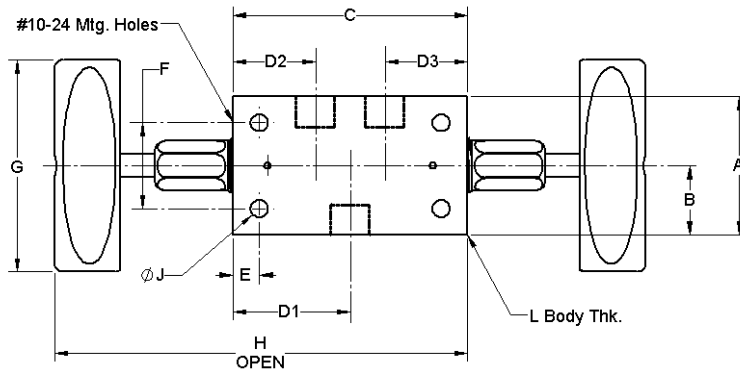
Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)										
					A	B	C	D1	D2	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NV4N3	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.46 (139.0)	0.25 (6.4)	1.00 (25.4)
		3/8	15NV6N3	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.62 (85.9)	2.38 (60.4)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	6.20 (157.5)	0.34 (8.7)	1.00 (25.4)
		1/2	15NV8N3	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.62 (85.9)	2.38 (60.4)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	6.20 (157.5)	0.34 (8.7)	1.50 (38.1)

3-Way 2 Outlet

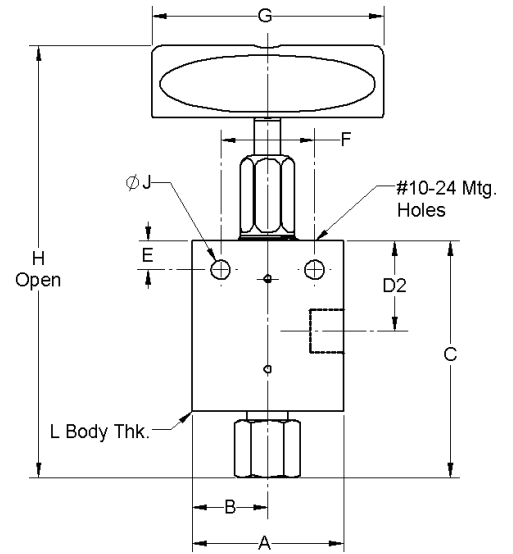
Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)									
					A	B	C	D1	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NV4N4	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	1.00 (25.4)
		3/8	15NV6N4	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.00 (25.4)
		1/2	15NV8N4	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

2-Stem Manifold



Replaceable Seat



2-Stem Manifold

Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)											
					A	B	C	D1	D2	D3	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NV4N5	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	3.38 (85.9)	1.69 (42.9)	1.19 (30.2)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	9.06 (230.1)	0.25 (6.4)	1.00 (25.4)
		3/8	15NV6N5	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	5.12 (130.0)	2.56 (65.0)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	10.28 (261.1)	0.34 (8.7)	1.00 (25.4)
		1/2	15NV8N5	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	5.12 (130.0)	2.56 (65.0)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	10.28 (261.1)	0.34 (8.7)	1.50 (38.1)

Replaceable Seat

Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)									
					A	B	C	D2	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NV4N6	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	3.30 (83.8)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	6.19 (157.2)	0.25 (6.4)	1.00 (25.4)
		3/8	15NV6N6	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	4.51 (114.6)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	7.09 (180.1)	0.34 (8.7)	1.00 (25.4)
		1/2	15NV8N6	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	4.62 (117.3)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	7.20 (182.9)	0.34 (8.7)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

Quick Open Pipe Needle Valves 15,000 PSI

Specifications

- MAWP up to 15,000 PSI (1034 bar)
- Temperature Ratings: -100°F to 600°F

Features & Benefits

- Valve is fully open in as little as 1 3/4 turns. A high pressure valve industry first!
- Stem is lifted off of the seat more than 2X faster than conventional valves, which reduces throttling and therefore increases seat life.
- Less than half the number of turns to fully open compared to competitor's valves. Less operator fatigue when opening/closing.
- Patent pending
- Solid stainless steel handle.
- Stainless steel captive fixing screw with stainless spring for easier handle removal. Eliminates dropped or misplaced fixing screw.
- 4-sided tapered stem for maximum handle contact. No chance of the handle slipping or loosening on stem.
- Two-piece, heavy-duty, non-rotating stem for a robust and reliable assembly.
- Bi-directional flow capability. Simplifies system designs.
- Packing gland/body thread interface consists of a preload locking internal thread form that is resistant to vibration. Eliminates the need for an external locking device.
- Double sided weep holes for easier leakage verification.
- Complete material traceability.

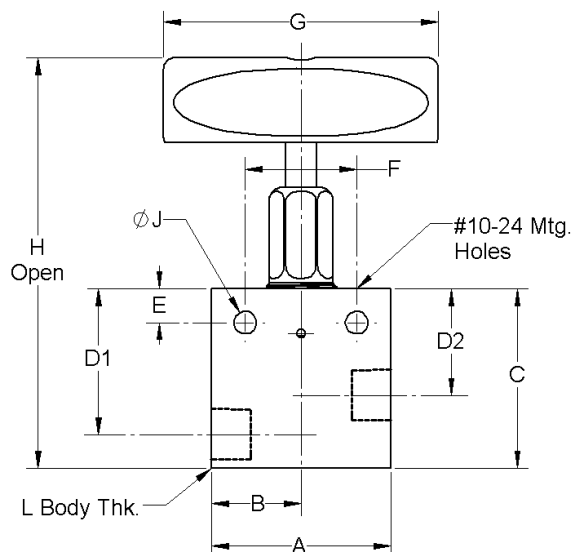
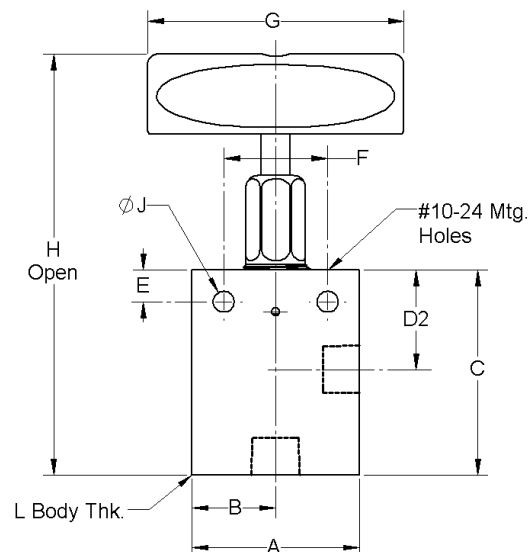
Options

- Can be manufactured to meet NACE MR-01-75
- Grafoil Packing for temperature up to 800°F
- Extended Stuffing Box for temperature up to 1200°F
- For Valve to be manufactured to NACE MR-01-75 add -NACE to end of part number. Pressure rating will change due to NACE, contact factory for revised pressure rating.

Example: 20NVQ6M1V-NACE

Materials

- Body - 316 cold worked stainless steel
- Packing – Glass filled Teflon
- Stem – 17-4 PH

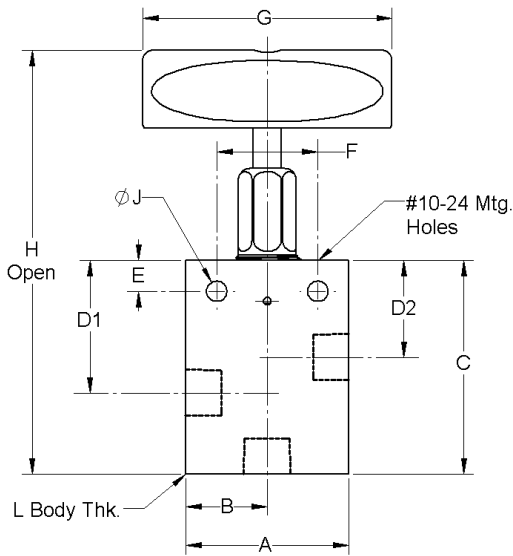
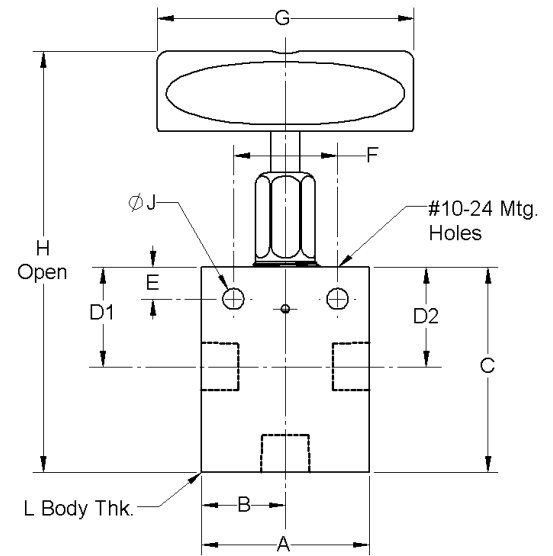
2-Way Straight**2-Way Angle****2-Way Straight**

Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)										
					A	B	C	D1	D2	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NVQ4N1	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.63 (41.28)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	4.84 (123.0)	0.25 (6.4)	1.00 (25.4)
		3/8	15NVQ6N1	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	2.88 (73.2)	2.38 (60.4)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.46 (139.0)	0.34 (8.7)	1.00 (25.4)
		1/2	15NVQ8N1	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.00 (76.2)	2.38 (60.4)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.58 (142.0)	0.34 (8.7)	1.50 (38.1)

2-Way Angle

Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)									
					A	B	C	D2	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NVQ4N2	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	1.00 (25.4)
		3/8	15NVQ6N2	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.00 (25.4)
		1/2	15NVQ8N2	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

3-Way 2 Inlet**3-Way 2 Outlet****3-Way 2 Inlet**

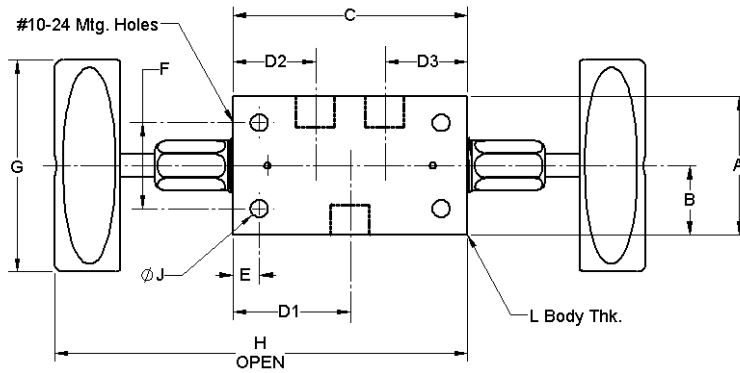
Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)										
					A	B	C	D1	D2	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NVQ4N3	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.46 (139.0)	0.25 (6.4)	1.00 (25.4)
		3/8	15NVQ6N3	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.62 (85.9)	2.38 (60.4)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	6.20 (157.5)	0.34 (8.7)	1.00 (25.4)
		1/2	15NVQ8N3	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.62 (85.9)	2.38 (60.4)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	6.20 (157.5)	0.34 (8.7)	1.50 (38.1)

3-Way 2 Outlet

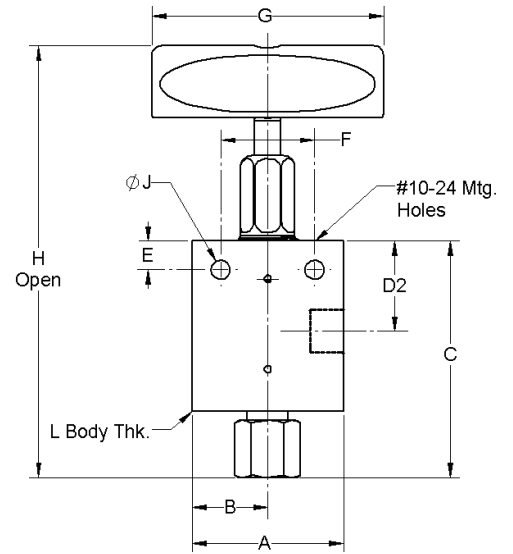
Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)									
					A	B	C	D1	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NVQ4N4	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	1.00 (25.4)
		3/8	15NVQ6N4	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.00 (25.4)
		1/2	15NVQ8N4	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

2-Stem Manifold



Replaceable Seat



2-Stem Manifold

Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)											
					A	B	C	D1	D2	D3	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NVQ4N5	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	3.38 (85.9)	1.69 (42.9)	1.19 (30.2)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	9.06 (230.1)	0.25 (6.4)	1.00 (25.4)
		3/8	15NVQ6N5	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	5.12 (130.0)	2.56 (65.0)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	10.28 (261.1)	0.34 (8.7)	1.00 (25.4)
		1/2	15NVQ8N5	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	5.12 (130.0)	2.56 (65.0)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	10.28 (261.1)	0.34 (8.7)	1.50 (38.1)

Replaceable Seat

Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)									
					A	B	C	D2	E	F	G	H	J	L
15,000 PSI	Female NPT	1/4	15NVQ4N6	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	3.30 (83.8)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	6.19 (157.2)	0.25 (6.4)	1.00 (25.4)
		3/8	15NVQ6N6	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	4.51 (114.6)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	7.09 (180.1)	0.34 (8.7)	1.00 (25.4)
		1/2	15NVQ8N6	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	4.62 (117.3)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	7.20 (182.9)	0.34 (8.7)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

NPT Check Valves 10,000 – 15,000 PSI

Specifications

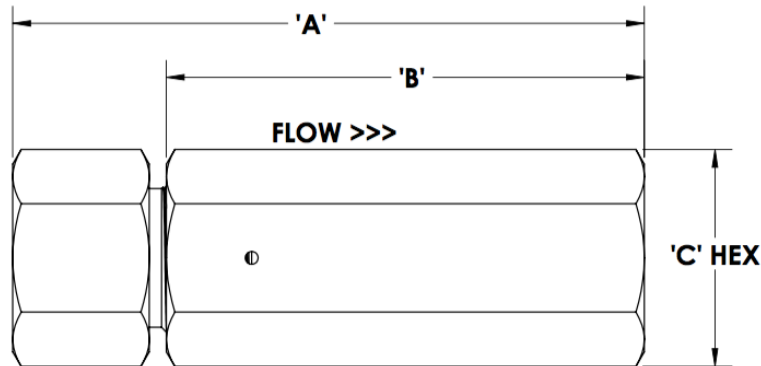
- MAWP up to 15,000 PSI (1034 bar)
- Temperature Ratings
 - Metal Seat: -420°F to 1200°F (-251°C to 648°C)
 - Soft Seat: -65°F to 250°F (-54°C to 121°C)
- Nominal Cracking Pressure: 15 PSI (1 bar)
- PEEK is standard material of soft seat
- NPT Check valves come standard with female end connections

Features

- Prevents reverse flow which may cause damage to a pressure system
- Metal cone ring option offers metal-to-metal seat for high temperature applications
- Standard PEEK seat for optimum performance
- Complete material traceability
- Can be manufactured to meet NACE MR-01-75

Materials

- 316 cold worked stainless steel is standard



Pressure Rating	Connection Type	End Connection Size in.	Metal Seat	Soft Seat	Orifice in. (mm)	Dimension in. (mm)		
						A	B	C
15,000 PSI	Female NPT	1/4	15CV4NFM	15CV4NFS	0.188 (4.78)	3.20 (81.3)	2.50 (63.5)	1.00 (25.4)
		3/8	15CV6NFM	15CV6NFS	0.219 (5.56)	3.56 (90.4)	2.66 (66.0)	1.13 (28.7)
		1/2	15CV8NFM	15CV8NFS	0.359 (9.12)	4.63 (117.6)	3.50 (88.9)	1.38 (35.1)
10,000 PSI		3/4	10CV12NFM	10CV12NFS	0.516 (13.11)	5.63 (143.00)	4.38 (111.25)	1.75 (44.45)
		1	10CV16NFM	10CV16NFS	0.688 (17.48)	7.00 (177.8)	5.25 (133.35)	2.13 (54.10)

Dimensions, in inches (millimeters), are for reference only and are subject to change

Medium and High Pressure Needle Valves 20,000 – 60,000 PSI

Specifications

- MAWP up to 60,000 PSI (4136 bar)
- Temperature Ratings: -100°F to 600°F

Features & Benefits

- Standard valve fully opens in as little as 3 1/2 turns.
- Solid stainless steel handle.
- Stainless steel captive fixing screw with stainless spring for easier handle removal. Eliminates dropped or misplaced fixing screw.
- 4-sided tapered stem for maximum handle contact. No chance of the handle slipping or loosening on stem.
- Two-piece, heavy-duty, non-rotating stem for a robust and reliable assembly.
- Bi-directional flow capability. Simplifies system designs.
- Packing gland/body thread interface consists of a preload locking internal thread form that is resistant to vibration. Eliminates the need for an external locking device.
- Double sided weep holes for easier leakage verification.
- Complete material traceability.

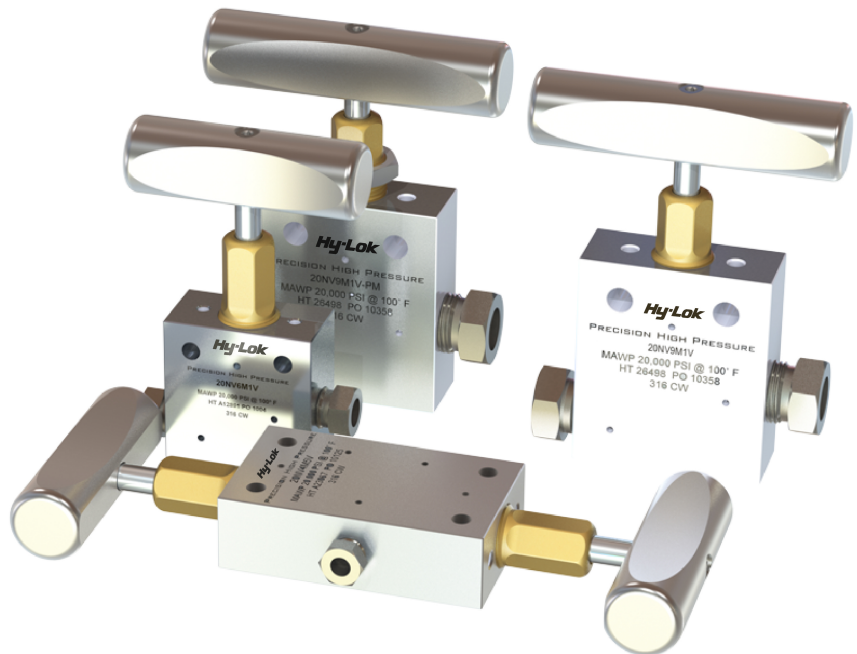
Options

- Air Actuators for Remote Valve Operation – See Page 12 or ordering information
- Can be manufactured to meet NACE MR-01-75
- Grafoil Packing for temperature up to 800°F
- Extended Stuffing Box for temperature up to 1200°F
- For Valve to be manufactured to NACE MR-01-75 add -NACE to end of part number. Pressure rating will change due to NACE, contact factory for revised pressure rating.

Example: 20NV6M1V-NACE

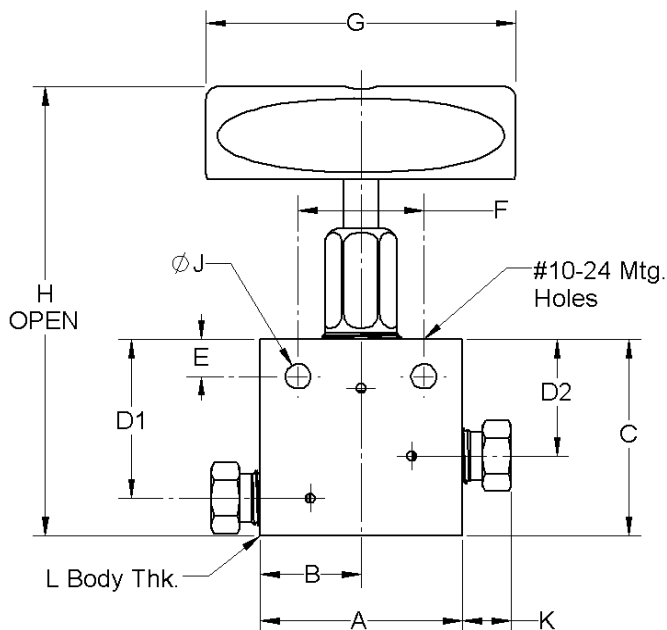
Materials

- Body - 316 cold worked stainless steel
- Packing – Glass filled Teflon
- Stem – 17-4 PH



Standard Needle Valves

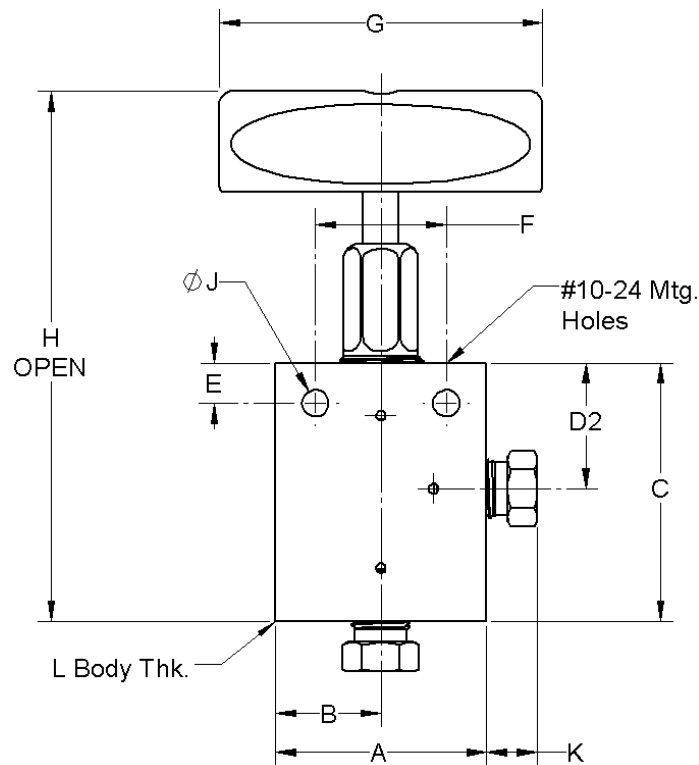
2-Way Straight



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)											
					A	B	C	D1	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NV4M1	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	4.84 (123.0)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NV6M1	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	4.84 (123.0)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NV9M1	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	2.88 (73.2)	2.38 (60.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.46 (138.7)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NV4H1	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.50 (38.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.74 (120.4)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NV6H1	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.50 (38.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.74 (120.4)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NV9H1	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	2.44 (62.0)	1.56 (39.6)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.18 (131.6)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NV4H1	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.12 (53.8)	1.69 (42.9)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.89 (124.2)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NV6H1	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.25 (57.2)	1.69 (42.9)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.02 (127.5)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NV9H1	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	2.50 (63.5)	1.75 (44.5)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.27 (133.9)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

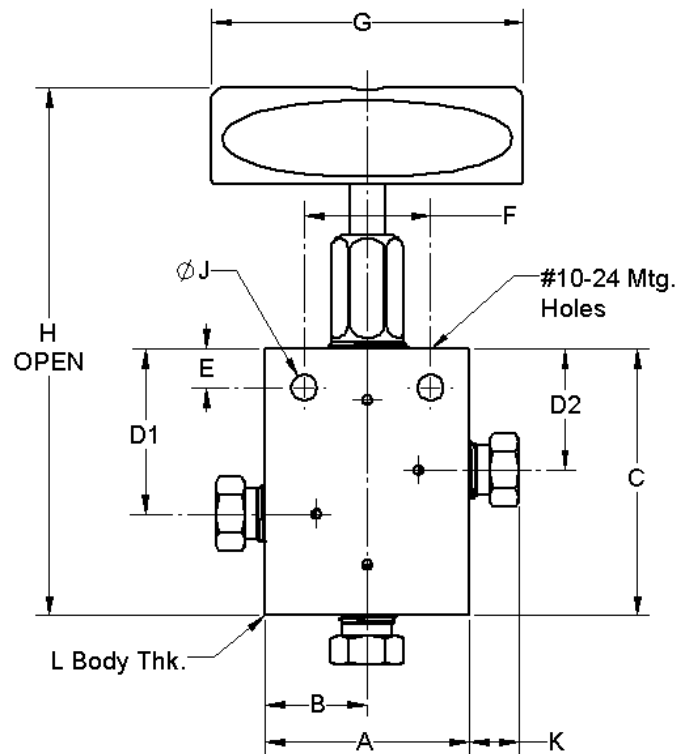
2-Way Angle



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)										
					A	B	C	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NV4M2	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NV6M2	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NV9M2	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (151.4)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NV4H2	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.74 (120.4)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NV6H2	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.12 (53.8)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.86 (123.4)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NV9H2	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	2.44 (62.0)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.18 (131.6)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NV4H2	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.38 (60.5)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.15 (130.8)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NV6H2	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.39 (136.9)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NV9H2	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	2.81 (71.4)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.58 (141.7)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

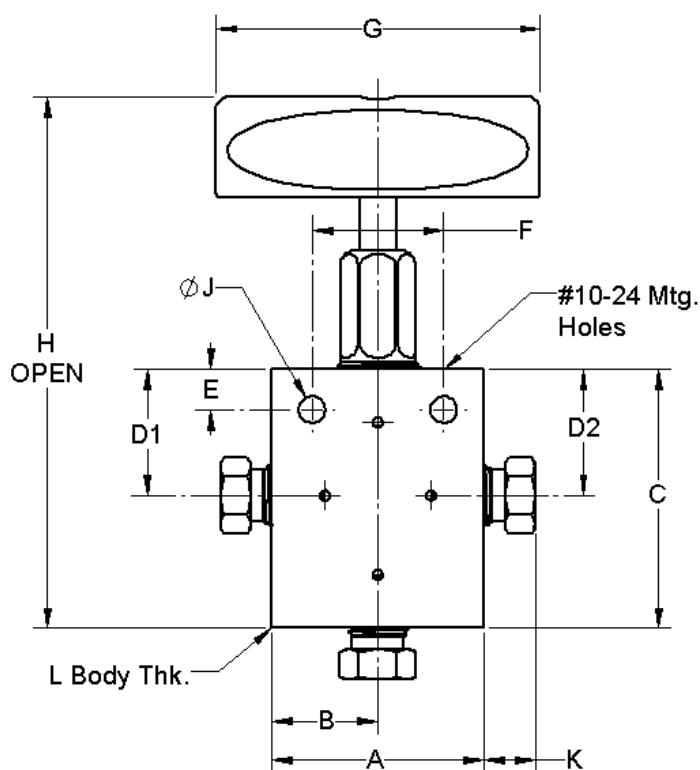
3-Way 2 Inlet



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)											
					A	B	C	D1	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NV4M3	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.46 (138.7)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NV6M3	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.46 (138.7)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NV9M3	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.63 (92.2)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	6.21 (157.7)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NV4H3	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	2.12 (53.8)	1.50 (38.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.86 (123.4)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NV6H3	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.50 (63.5)	1.50 (38.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.24 (133.1)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NV9H3	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	2.88 (73.2)	1.56 (39.6)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.62 (142.7)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NV4H3	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.38 (60.5)	1.69 (42.9)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.15 (130.8)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NV6H3	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.75 (69.9)	1.69 (42.9)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.52 (140.2)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NV9H3	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	3.03 (77.0)	1.75 (44.5)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.82 (147.8)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

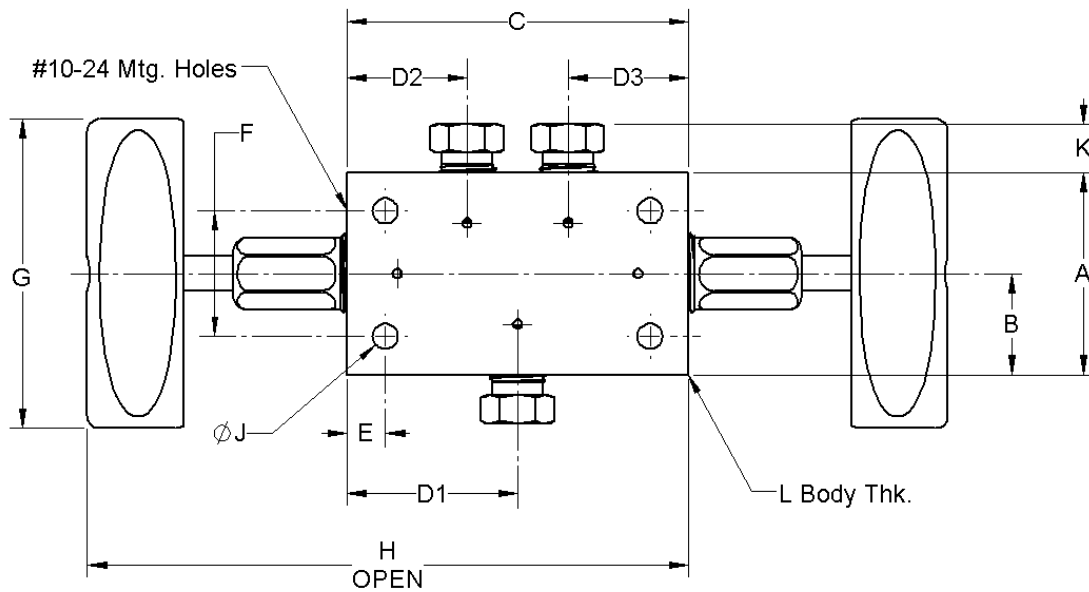
3-Way 2 Outlet



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)											
					A	B	C	D1	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NV4M4	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NV6M4	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NV9M4	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (151.4)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NV4H4	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.12 (28.5)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.74 (120.4)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NV6H4	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.12 (53.8)	1.12 (28.5)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.86 (123.4)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NV9H4	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	2.44 (62.0)	1.12 (28.5)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.18 (131.6)	0.28 (7.1)	1.00 (25.4)	1.00 (25.4)
60,000 PSI	High Pressure Cone & Thread	1/4	60NV4H4	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.38 (60.5)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.15 (130.8)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NV6H4	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.39 (136.9)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NV9H4	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	2.81 (71.4)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.50 (38.1)	3.00 (76.2)	5.58 (141.7)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

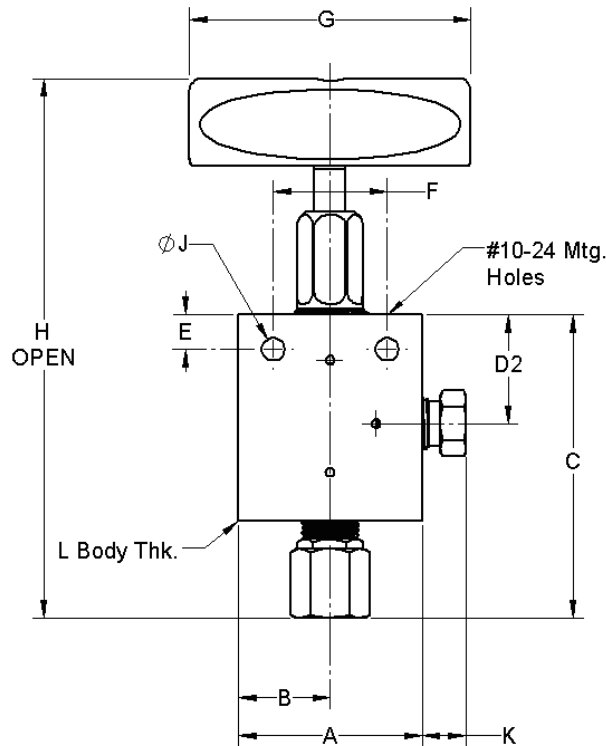
2-Stem Manifold



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)												
					A	B	C	D1	D2	D3	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NV4M5	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	3.38 (85.9)	1.69 (42.9)	1.19 (30.2)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	9.06 (230.1)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NV6M5	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	3.38 (85.9)	2.56 (65.0)	1.75 (44.5)	1.75 (44.5)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	9.06 (230.1)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NV9M5	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	5.12 (130.0)	2.56 (65.0)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	10.28 (261.1)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NV4H5	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	3.06 (77.7)	1.53 (38.9)	1.12 (28.4)	1.12 (28.4)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	8.54 (216.9)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NV6H5	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	3.25 (82.6)	1.62 (41.2)	1.12 (28.4)	1.12 (28.4)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	8.73 (221.7)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NV9H5	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	3.75 (95.3)	1.88 (47.8)	1.12 (28.4)	1.12 (28.4)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	9.23 (234.4)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NV4H5	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	3.44 (87.4)	1.72 (43.7)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	8.98 (228.1)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NV6H5	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	3.75 (95.3)	1.88 (47.8)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	9.29 (236.0)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NV9H5	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	4.12 (104.7)	2.06 (52.3)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	9.66 (245.4)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

Replaceable Seat



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)										
					A	B	C	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NV4M6	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	3.30 (83.8)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	6.04 (153.4)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NV6M6	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	3.30 (83.8)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	6.04 (153.4)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NV9M6	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	4.63 (117.6)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	7.21 (183.1)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NV4H6	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	3.12 (79.2)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.83 (148.1)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NV6H6	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	3.39 (86.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.09 (154.7)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NV9H6	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	3.82 (97.0)	1.19 (30.2)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.52 (165.6)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NV4H6	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	3.45 (87.6)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.19 (157.2)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NV6H6	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	3.75 (95.25)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.49 (164.8)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NV9H6	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	4.00 (101.6)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.74 (171.2)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

Quick Open Needle Valves 20,000 – 60,000 PSI

Specifications

- MAWP up to 60,000 PSI (4136 bar)
- Temperature Ratings: -100°F to 600°F

Features & Benefits

- Valve is fully open in as little as 1 3/4 turns. A high pressure valve industry first!
- Stem is lifted off of the seat more than 2X faster than conventional valves, which reduces throttling and therefore increases seat life.
- Less than half the number of turns to fully open compared to competitor's valves. Less operator fatigue when opening/closing.
- Patent pending
- Solid stainless steel handle.
- Stainless steel captive fixing screw with stainless spring for easier handle removal. Eliminates dropped or misplaced fixing screw.
- 4-sided tapered stem for maximum handle contact. No chance of the handle slipping or loosening on stem.
- Two-piece, heavy-duty, non-rotating stem for a robust and reliable assembly.
- Bi-directional flow capability. Simplifies system designs.
- Packing gland/body thread interface consists of a preload locking internal thread form that is resistant to vibration. Eliminates the need for an external locking device.
- Double sided weep holes for easier leakage verification.
- Complete material traceability.

Options

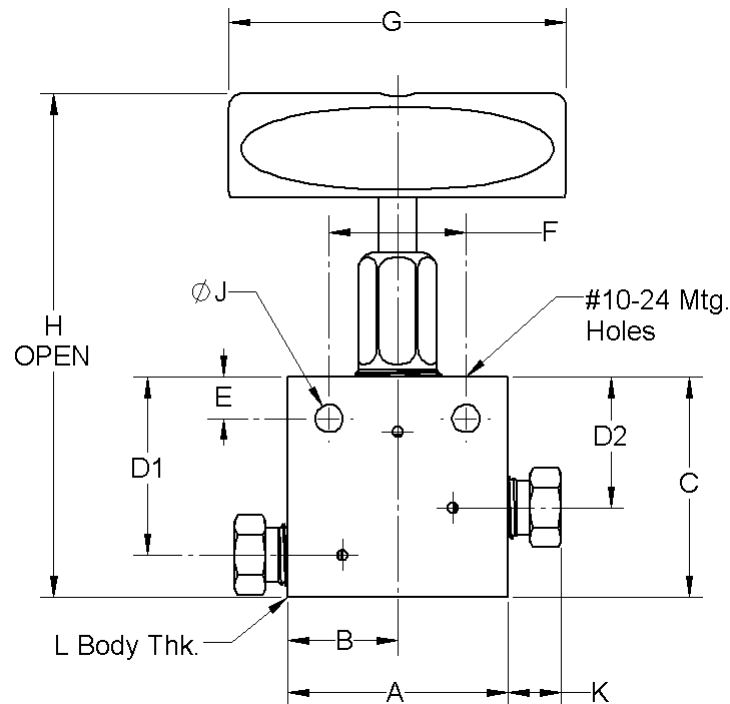
- Can be manufactured to meet NACE MR-01-75
- Grafoil Packing for temperature up to 800°F
- Extended Stuffing Box for temperature up to 1200°F
- For Valve to be manufactured to NACE MR-01-75 add -NACE to end of part number. Pressure rating will change due to NACE, contact factory for revised pressure rating.

Example: 20NVQ6M1V-NACE

Materials

- Body - 316 cold worked stainless steel
- Packing – Glass filled Teflon
- Stem – 17-4 PH

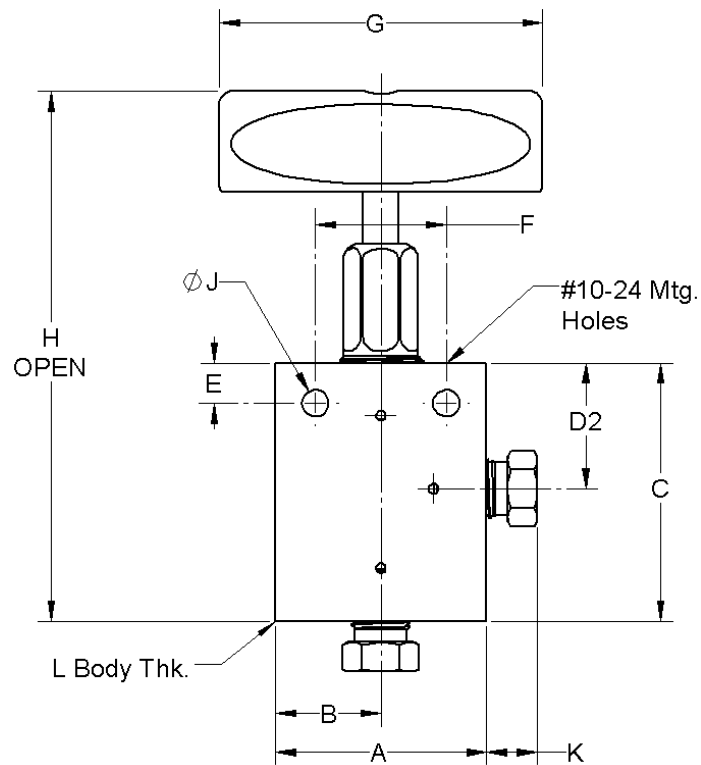
2-Way Straight



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)											
					A	B	C	D1	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NVQ4M1	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	4.84 (123.0)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NVQ6M1	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	4.84 (123.0)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NVQ9M1	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	2.88 (73.2)	2.38 (60.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.46 (138.7)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NVQ4H1	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.50 (38.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.74 (120.4)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NVQ6H1	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.50 (38.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.74 (120.4)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NVQ9H1	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	2.44 (62.0)	1.56 (39.6)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.18 (131.6)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NVQ4H1	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.12 (53.8)	1.69 (42.9)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.89 (124.2)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NVQ6H1	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.25 (57.2)	1.69 (42.9)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.02 (127.5)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NVQ9H1	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	2.50 (63.5)	1.75 (44.5)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.27 (133.9)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

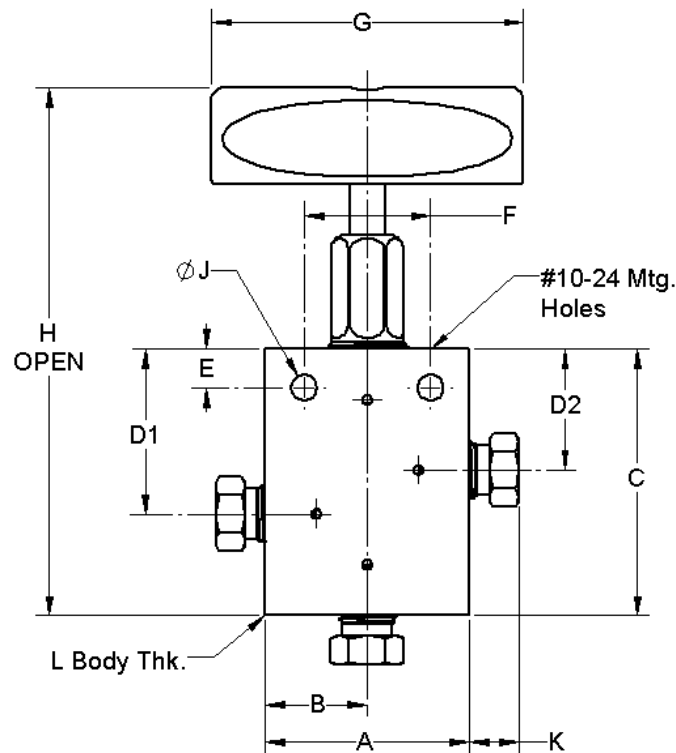
2-Way Angle



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)										
					A	B	C	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NVQ4M2	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NVQ6M2	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NVQ9M2	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (151.4)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NVQ4H2	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.74 (120.4)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NVQ6H2	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.12 (53.8)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.86 (123.4)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NVQ9H2	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	2.44 (62.0)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.18 (131.6)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NVQ4H2	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.38 (60.5)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.15 (130.8)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NVQ6H2	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.39 (136.9)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NVQ9H2	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	2.81 (71.4)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.58 (141.7)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

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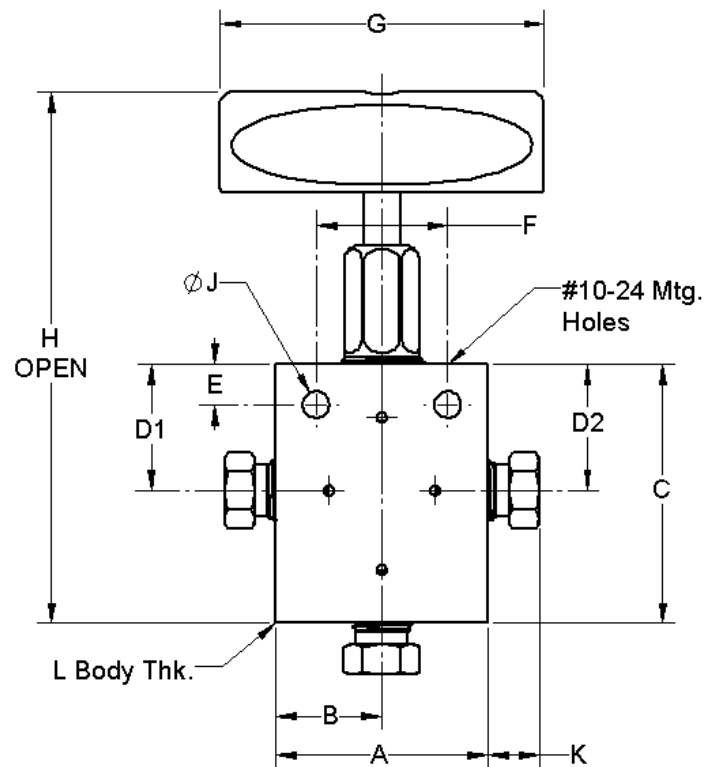
3-Way 2 Inlet



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)											
					A	B	C	D1	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NVQ4M3	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.46 (138.7)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NVQ6M3	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.63 (41.3)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.46 (138.7)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NVQ9M3	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.63 (92.2)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	6.21 (157.7)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NVQ4H3	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	2.12 (53.8)	1.50 (38.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.86 (123.4)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NVQ6H3	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.50 (63.5)	1.50 (38.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.24 (133.1)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NVQ9H3	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	2.88 (73.2)	1.56 (39.6)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.62 (142.7)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NVQ4H3	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.38 (60.5)	1.69 (42.9)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.15 (130.8)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NVQ6H3	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.75 (69.9)	1.69 (42.9)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.52 (140.2)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NVQ9H3	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	3.03 (77.0)	1.75 (44.5)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.82 (147.8)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

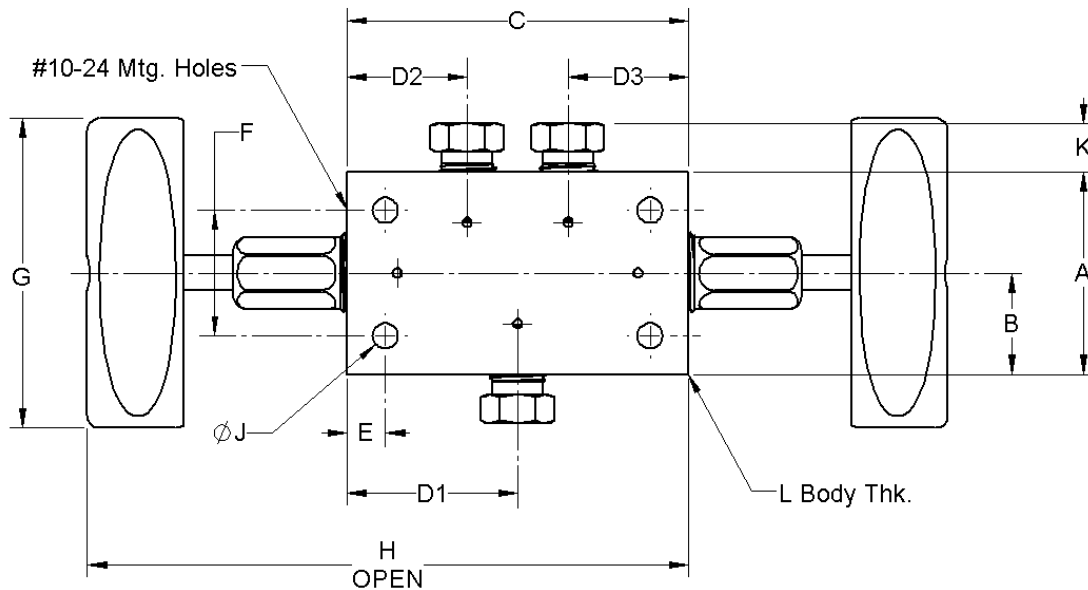
3-Way 2 Outlet



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)											
					A	B	C	D1	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NVQ4M4	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NVQ6M4	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NVQ9M4	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (151.4)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NVQ4H4	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.12 (28.5)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.74 (120.4)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NVQ6H4	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	2.12 (53.8)	1.12 (28.5)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	4.86 (123.4)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NVQ9H4	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	2.44 (62.0)	1.12 (28.5)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.18 (131.6)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NVQ4H4	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.38 (60.5)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.15 (130.8)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NVQ6H4	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	2.62 (66.5)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.39 (136.9)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NVQ9H4	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	2.81 (71.4)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.50 (38.1)	3.00 (76.2)	5.58 (141.7)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

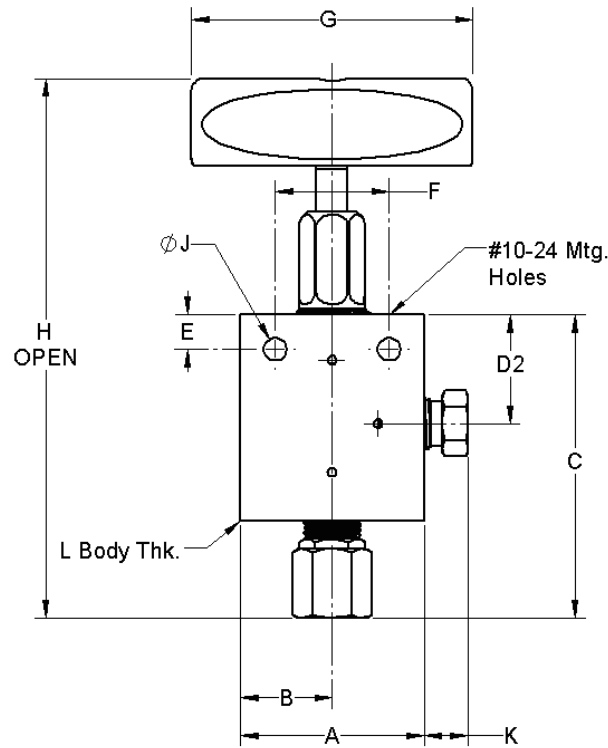
2-Stem Manifold



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)												
					A	B	C	D1	D2	D3	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NVQ4M5	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	3.38 (85.9)	1.69 (42.9)	1.19 (30.2)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	9.06 (230.1)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NVQ6M5	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	3.38 (85.9)	2.56 (65.0)	1.75 (44.5)	1.75 (44.5)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	9.06 (230.1)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NVQ9M5	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	5.12 (130.0)	2.56 (65.0)	1.75 (44.5)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	10.28 (261.1)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NVQ4H5	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	3.06 (77.7)	1.53 (38.9)	1.12 (28.4)	1.12 (28.4)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	8.54 (216.9)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NVQ6H5	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	3.25 (82.6)	1.62 (41.2)	1.12 (28.4)	1.12 (28.4)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	8.73 (221.7)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NVQ9H5	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	3.75 (95.3)	1.88 (47.8)	1.12 (28.4)	1.12 (28.4)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	9.23 (234.4)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NVQ4H5	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	3.44 (87.4)	1.72 (43.7)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	8.98 (228.1)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NVQ6H5	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	3.75 (95.3)	1.88 (47.8)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	9.29 (236.0)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NVQ9H5	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	4.12 (104.7)	2.06 (52.3)	1.31 (33.3)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	9.66 (245.4)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

Replaceable Seat



Pressure Rating	Connection Type	End Connection Size in.	Part Number	Orifice in. (mm)	Dimensions, in. (mm)										
					A	B	C	D2	E	F	G	H	J	K	L
20,000 PSI	Medium Pressure Cone & Thread	1/4	20NVQ4M6	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	3.30 (83.8)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	6.04 (153.4)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)
		3/8	20NVQ6M6	0.20 (5.1)	2.00 (50.8)	1.00 (25.4)	3.30 (83.8)	1.19 (30.2)	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	6.04 (153.4)	0.25 (6.4)	0.48 (12.2)	1.00 (25.4)
		9/16	20NVQ9M6	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	4.63 (117.6)	1.75 (44.5)	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	7.21 (183.1)	0.34 (8.7)	0.68 (17.3)	1.00 (25.4)
30,000 PSI	High Pressure Cone & Thread	1/4	30NVQ4H6	0.093 (2.4)	2.00 (50.8)	1.00 (25.4)	3.12 (79.2)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	5.83 (148.1)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	30NVQ6H6	0.125 (3.2)	2.00 (50.8)	1.00 (25.4)	3.39 (86.1)	1.12 (28.5)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.09 (154.7)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	30NVQ9H6	0.125 (3.2)	2.62 (66.5)	1.31 (33.3)	3.82 (97.0)	1.19 (30.2)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.52 (165.6)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)
60,000 PSI	High Pressure Cone & Thread	1/4	60NVQ4H6	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	3.45 (87.6)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.19 (157.2)	0.28 (7.1)	0.59 (15.0)	1.00 (25.4)
		3/8	60NVQ6H6	0.062 (1.6)	2.00 (50.8)	1.00 (25.4)	3.75 (95.25)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.49 (164.8)	0.28 (7.1)	0.72 (18.3)	1.00 (25.4)
		9/16	60NVQ9H6	0.012 (0.03)	2.62 (66.5)	1.31 (33.3)	4.00 (101.6)	1.31 (33.3)	0.38 (9.7)	1.38 (35.0)	3.00 (76.2)	6.74 (171.2)	0.28 (7.1)	1.00 (25.4)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change

Medium and High Pressure Check Valves 20,000 – 60,000 PSI

Specifications

- MAWP up to 60,000 PSI (4136 bar)
- Temperature Ratings
 - Metal Seat: -420°F to 1200°F (-251°C to 648°C)
 - Soft Seat: -65°F to 250°F (-54°C to 121°C)
- Nominal Cracking Pressure: 15 PSI (1 bar)
- PEEK is standard material of soft seat
- NPT Check valves come standard with female end connections

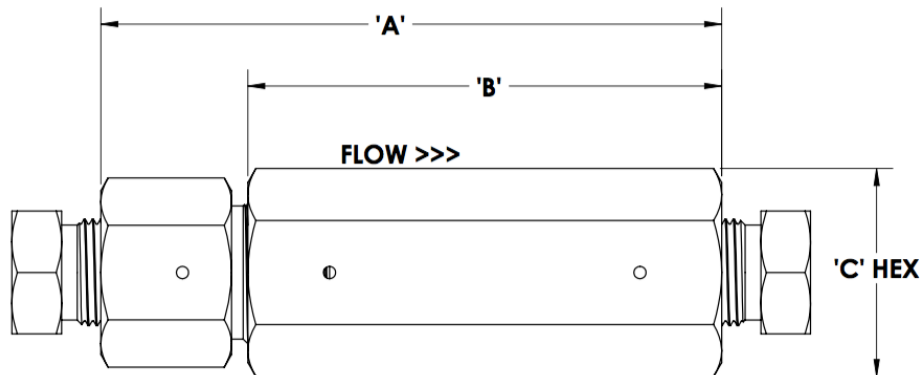
Features

- Prevents reverse flow which may cause damage to a pressure system
- Metal cone ring option offers metal-to-metal seat for high temperature applications
- Standard PEEK seat for optimum performance
- Complete material traceability
- Can be manufactured to meet NACE MR-01-75

Materials

- 316 cold worked stainless steel is standard

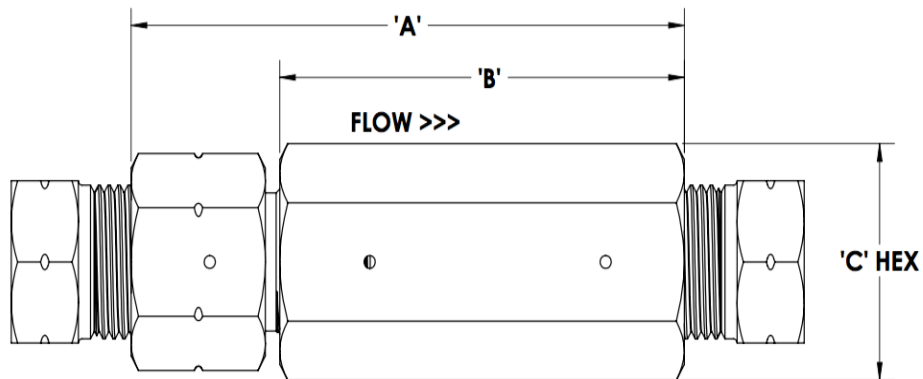
Medium Pressure 20,000 PSI



Pressure Rating	Connection Type	End Connection Size in.	Metal Seat	Soft Seat	Orifice in. (mm)	Dimension in. (mm)		
						A	B	C
20,000 PSI	Medium Pressure Cone & Thread	1/4	20CV4MFM	20CV4MFS	0.125 (3.18)	3.07 (78.0)	2.50 (63.5)	1.00 (25.4)
		3/8	20CV6MFM	20CV6MFS	0.219 (5.56)	3.48 (88.4)	2.66 (66.0)	1.13 (28.7)
		9/16	20CV9MFM	20CV9MFS	0.359 (9.12)	4.76 (120.9)	3.50 (88.9)	1.38 (35.1)
		3/4	20CV12MFM	20CV12MFS	0.516 (13.11)	5.63 (143.00)	4.38 (111.25)	1.75 (44.45)
		1	20CV16MFM	20CV16MFS	0.688 (17.48)	7.00 (177.8)	5.25 (133.35)	2.13 (54.10)

Dimensions, in inches (millimeters), are for reference only and are subject to change

High Pressure 60,000 PSI



Pressure Rating	Connection Type	End Connection Size in.	Metal Seat	Soft Seat	Orifice in. (mm)	Dimension in. (mm)		
						A	B	C
60,000 PSI	High Pressure Cone & Thread	1/4	60CV4HFM	60CV4HFS	0.094 (2.39)	3.26 (82.8)	2.50 (63.5)	1.25 (31.8)
		3/8	60CV6HFM	60CV6HFS	0.125 (3.18)	3.75 (95.25)	2.75 (69.9)	1.25 (31.8)
		9/16	60CV9HFM	60CV9HFS	0.188 (4.78)	4.63 (117.6)	3.38 (85.9)	1.50 (38.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

Note: Larger sizes available by request

Air Actuators for Needle Valves

Air Actuators for Remote Valve Operation

Types:

- Normally Closed – Air is required to open the valve
- Normally Open – Air is required to close the valve
- Double Action – Open or close the valve using air pressure

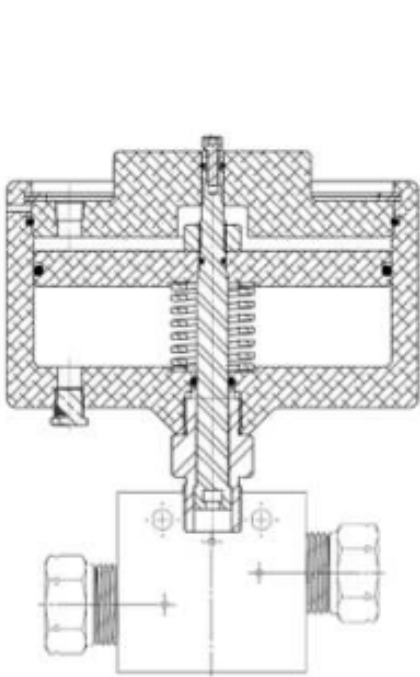
Ordering Information:

Normally Closed (Air-to-Open): -NC5

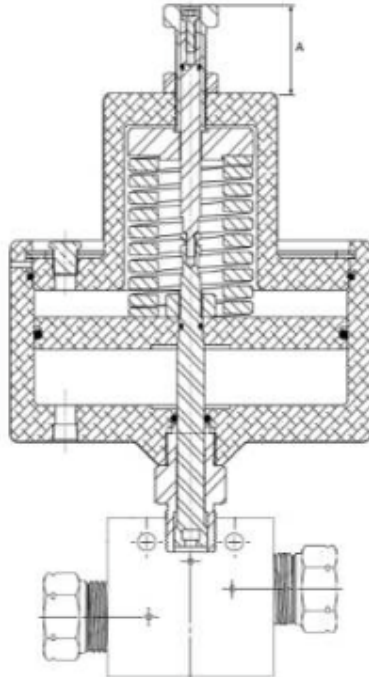
Normally Open (Air-to-Close): -NO5

Double Acting: -DA5

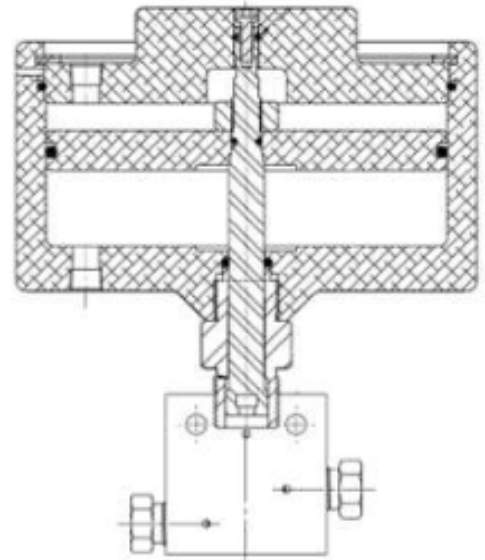
Example: 30NV6H1V becomes 30NV6H1V-NO5



Normally Open (Air-to-Close)



Normally Closed (Air-to-Open)



Double Acting

Actuator Settings:

VALVE TYPE	Air Actuator Type					
	NC5 (Air-to-Open)		NO5 (Air-to-Close)		DAS (Double Acting)	
	AIR PRESSURE TO FULL TRAVEL (PSI)	MAWP PSI @ 100° F.	AIR PRESSURE TO FULL TRAVEL (PSI)	MAWP PSI @ 100° F.	AIR PRESSURE TO FULL TRAVEL (PSI)	MAWP PSI @ 100° F.
15NV4N	80	15,000	65	15,000	50	15,000
15NV6N	100	15,000	100	15,000	95	15,000
15NV8N	100	14,000	100	15,000	95	15,000
20NV4M	80	20,000	65	20,000	50	20,000
20NV6M	80	20,000	65	20,000	50	20,000
20NV9M	100	14,000	100	17,000	95	20,000
30NV4H	85	30,000	70	30,000	55	30,000
30NV6H	85	30,000	70	30,000	55	30,000
30NV9H	85	30,000	70	30,000	55	30,000
60NV4H	100	60,000	95	60,000	75	60,000
60NV6H	100	60,000	95	60,000	75	60,000
60NV9H	100	60,000	95	60,000	75	60,000



Ball Valves

Specifications

- MAWP up to 20,000 PSI (1380 bar)
- Temperature Ratings: -20°F to 400°F
- Port Sizes: 3/16", 1/4", 3/8" or 1/2"
- Flow Patterns: 2-way, 3-way Switching, 3-way Diverting

Connection Types

- NPT
- MP and HP Cone & Threaded

Features & Benefits

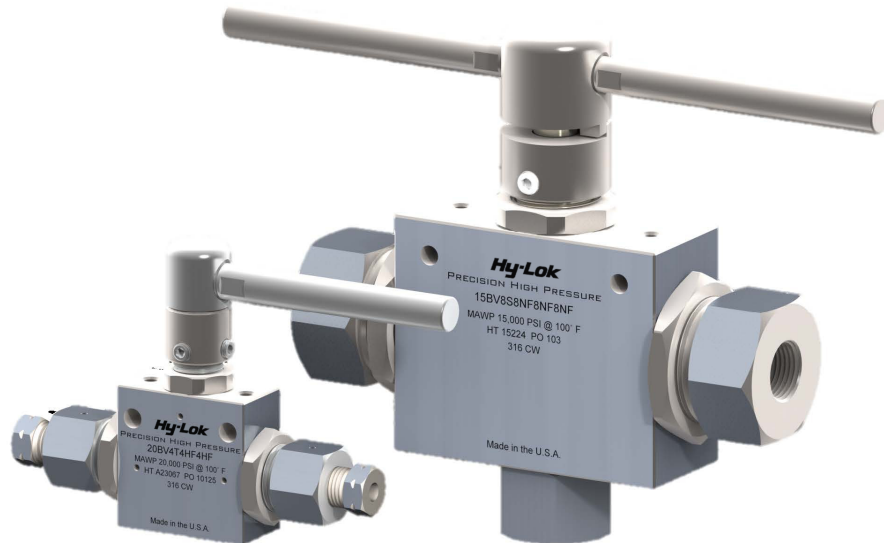
- Bi directional trunnion style for optimal performance
- Three standard mounting options

Materials

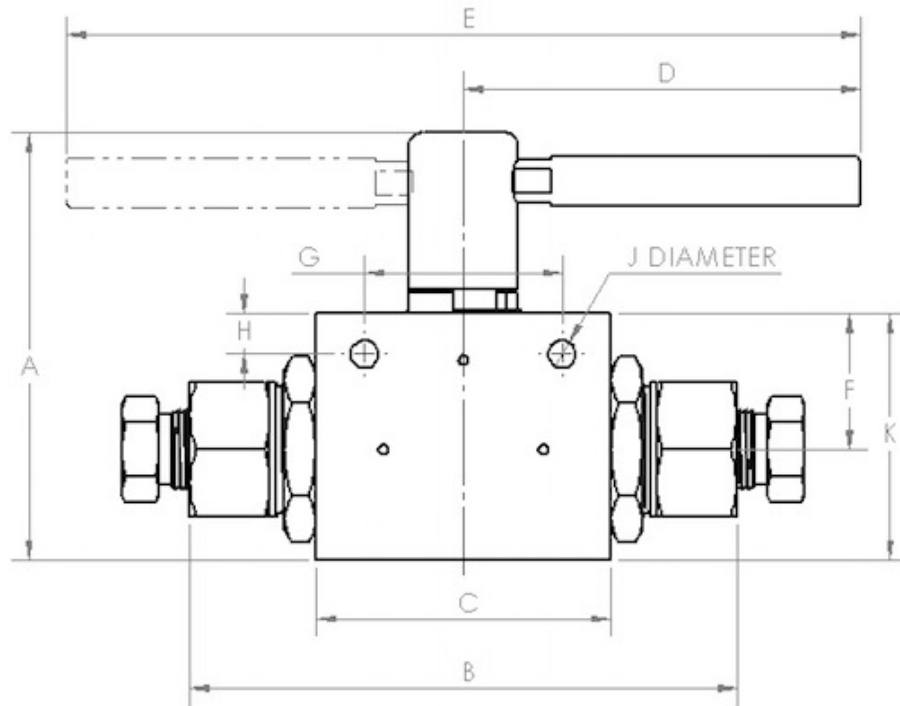
- Body / Side Adapter / Stem - 316 cold worked stainless steel
- Packing – Glass filled Teflon
- Seats – PEEK
- Seals - Viton
- Bearings – Nitronic 60

Options:

- Available with electric actuators



2-Way Trunnion



1/4" Orifice

Pressure Rating	End Connection Type	End Connection Size in.	Orifice in. (mm)	Part Number
15,000 PSI	Female NPT	1/4	0.250 (6.35)	15BV4T4NF
		3/8		15BV4T6NF
		1/2		15BV4T8NF
20,000 PSI	Medium Pressure Cone & Thread	1/4		20BV4T4MF
		3/8		20BV4T6MF
		9/16		20BV4T9MF
	High Pressure Cone and Thread	1/4		20BV4T4HF
		3/8		20BV4T6HF
		9/16		20BV4T9HF

Dimensions, in. (mm)										
A	B	C	D	E	F	G	H	J	K	Block Thickness
3.83 (97.3)	4.35 (110.5)	2.00 (50.8)	3.98 (101.1)	-	1.13 (28.7)	1.50 (38.1)	0.44 (11.2)	0.28 (7.1)	2.00 (50.8)	1.00 (25.4)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

3/8" Orifice

Pressure Rating	End Connection Type	End Connection Size in.	Orifice in. (mm)	Part Number
15,000 PSI	Female NPT	1/4	0.375 (9.53)	15BV6T4NF
		3/8		15BV6T6NF
		1/2		15BV6T8NF
20,000 PSI	Medium Pressure Cone & Thread	3/8		20BV6T6MF
		9/16		20BV6T9MF
		3/4		20BV6T12MF

Dimensions, in. (mm)										
A	B	C	D	E	F	G	H	J	K	Block Thickness
4.34 (110.2)	5.54 (140.7)	3.00 (76.2)	4.02 (102.1)	-	1.38 (35.1)	2.00 (50.8)	0.41 (10.4)	0.28 (7.1)	2.50 (63.5)	1.38 (35.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

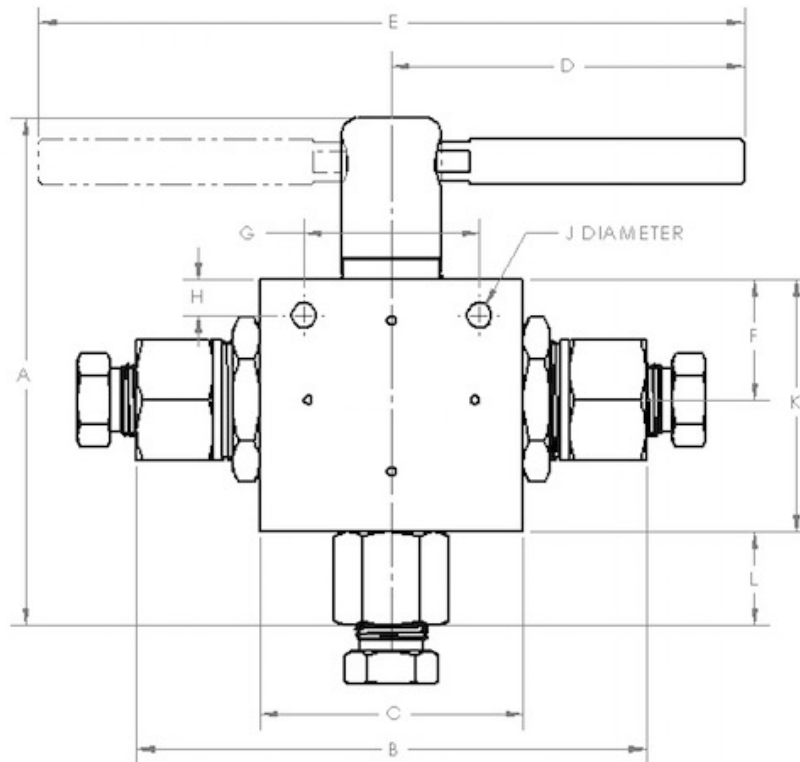
1/2" Orifice

Pressure Rating	End Connection Type	End Connection Size in.	Orifice in. (mm)	Part Number
15,000 PSI	Female NPT	1/2	0.500 (12.7)	15BV8T8NF
10,000 PSI		3/4		10BV8T12NF
		1		10BV8T16NF
15,000 PSI	Medium Pressure Cone & Thread	3/4		15BV8T12MF
		1		15BV8T16MF

Dimensions, in. (mm)										
A	B	C	D	E	F	G	H	J	K	Block Thickness
5.57 (141.5)	7.69 (195.3)	4.13 (104.9)	5.13 (130.3)	10.26 (260.6)	1.76 (44.7)	3 (76.2)	0.50 (12.7)	0.28 (7.1)	3.09 (78.5)	1.75 (44.5)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

3-Way Trunnion



3/16" Orifice

Pressure Rating	End Connection Type	End Connection Size in.	Orifice in. (mm)	Part Number	
				90° Diverting	180° Switching
15,000 PSI	Female NPT	1/4	0.188 (4.78)	15BV3D4NF	15BV3S4NF
		3/8		15BV3D6NF	15BV3S6NF
		1/2		15BV3D8NF	15BV3S8NF
20,000 PSI	Medium Pressure Cone & Thread	1/4		20BV3D4MF	20BV3S4MF
		3/8		20BV3D6MF	20BV3S6MF
		9/16		20BV3D9MF	20BV3S9MF
	High Pressure Cone and Thread	1/4		20BV3D4HF	20BV3S4HF
		3/8		20BV3D6HF	20BV3S6HF
		9/16		20BV3D9HF	20BV3S9HF

Dimensions, in. (mm)											
A	B	C	D	E	F	G	H	J	K	L	Block Thickness
5.64 (143.3)	4.72 (119.9)	2.50 (63.5)	3.37 (85.6)	-	1.13 (28.7)	1.50 (38.1)	0.43 (10.9)	0.28 (7.1)	2.25 (57.2)	0.96 (24.4)	1.00 (25.4)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

3/8" Orifice

Pressure Rating	End Connection Type	End Connection Size in.	Orifice in. (mm)	Part Number	
				90° Diverting	180° Switching
15,000 PSI	Female NPT	1/4	0.375 (9.53)	15BV6D4NF	15BV6S4NF
		3/8		15BV6D6NF	15BV6S6NF
		1/2		15BV6D8NF	15BV6S8NF
	Medium Pressure Cone & Thread	3/8		15BV6D6MF	15BV6S6MF
		9/16		15BV6D9MF	15BV6S9MF
		3/4		15BV6D12MF	15BV6S12MF

Dimensions, in. (mm)											
A	B	C	D	E	F	G	H	J	K	L	Block Thickness
5.78 (146.8)	5.80 (147.3)	3.00 (76.2)	4.02 (102.1)	-	1.38 (35.1)	2.00 (50.8)	0.41 (10.4)	0.28 (7.1)	2.88 (73.2)	1.06 (26.9)	1.38 (35.1)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

1/2" Orifice

Pressure Rating	End Connection Type	End Connection Size in.	Orifice in. (mm)	Part Number	
				90° Diverting	180° Switching
10,000 PSI	Female NPT	1/2	0.500 (12.7)	15BV8D8NF	15BV8S8NF
		3/4		10BV8D12NF	10BV8S12NF
		1		10BV8D16NF	10BV8S16NF
	Medium Pressure Cone & Thread	3/4		10BV8D12MF	10BV8S12MF
		1		10BV8D16MF	10BV8S16MF

Dimensions, in. (mm)											
A	B	C	D	E	F	G	H	J	K	L	Block Thickness
7.83 (198.9)	7.77 (197.4)	4.13 (104.9)	5.12 (130.0)	10.25 (260.35)	1.66 (42.2)	3.00 (76.2)	0.50 (12.7)	0.28 (7.1)	3.34 (84.8)	1.70 (43.2)	1.75 (44.5)

Dimensions, in inches (millimeters), are for reference only and are subject to change.

Double Block and Bleed Valves

Specifications

- MAWP up to 20,000 PSI (1380 bar)
- Temperature Ratings: -100°F to 450°F

Connection Types

- NPT
- MP and HP Cone & Threaded

Features & Benefits

- PHP Standard Needle Valve internals

Configurations

- Ball x Needle x Ball
- Needle x Needle x Needle

Options

- Grafoil Packing for temperature up to 1200°F

Materials

- Body - 316 cold worked stainless steel
- Packing - Glass filled Teflon
- Seats - PEEK
- Stem - 15-5 PH

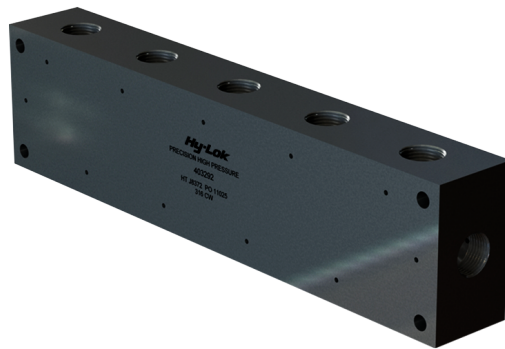
Double Block and Bleed Valves are custom designed to meet the unique needs of each customer. Contact us to discuss your requirements.



Custom Manifolds

Precision High Pressure manufactures custom designed high quality manifolds to meet the unique needs of each individual customer.

- Custom Manifolds reduce installation time and minimize space requirements
- Can withstand pressures up to 60,000 PSI
- PHP custom manifolds are available in a wide range of connection sizes and types including NPT and Cone & Threaded
- Lengths to 96" are available
- Available in a wide variety of materials



Let us design it for you! All customers will receive a design drawing for final approval before manufacturing commences.

Information needed for quotation:

1. Material type
2. Required pressure rating
3. If possible, a sketch including:
 - a. Manifold layout with desired dimensions
 - b. Placement of ports
 - c. Mounting hole locations if required

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