

Premier Manufacturer of High Pressure Valves, Fittings, Tubing, and Accessories



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Precision High Pressure is the premier manufacturer of high pressure valves, fittings, tubing, and accessories with pressures up to 100,000 PSI.

PHP specializes in the
oil and gas and waterjet
markets with typical
applications including Hydrogen, Subsea



Systems, Process Control Systems, Control Panels, Hydraulic Power Units (HPUs), Hydrostatic Test Systems, Water Blasting and Waterjet Cutting.

With over 60 years of cumulative experience in design and manufacturing of various high tech products, the PHP team looks forward to continuing our tradition of delivering high quality products and dependable services to our customers across the globe.





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Standard Type

Specifications

- MAWP up to 15,000 PSI (1034 bar).
- Temperature Ratings: 0°F to 400°F (-18°C to 204°C).
- Female NPT connections are standard.
- Vee type stem is standard.

Features & Benefits

- Standard valve fully opens in 4 ½ turns.
- Standard ³/₄" and 1" valve fully opens in as little as 3 turns, compared to 9 turns for industry standard valves.
- Two-piece, heavy-duty, non-rotating stem for a robust and reliable assembly.
- Bi-directional flow capability. Simplifies system designs.
- Packing gland 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.



- Valve is fully open in as little as $1^{3}/_{4}$ turns.
- Stem is lifted off of the seat a minimum of 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.

Options

- Solid Stainless Steel or Aluminum Handle.
- Replaceable Seat design for use in harsh environments.
- Air Actuators for Remote Valve Actuator.
- Grafoil Packing for temperature up to 800°F.
- Extended Stuffing Box for temperatures up to 1200°F.
- Extended Stuffing Box for temperatures down to -423°F.
- Can be manufactured to meet NACE MR-01-75.
- Wide range of construction materials available.

Standard Materials

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

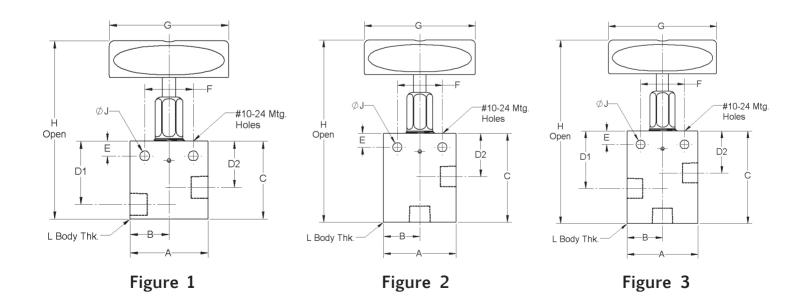


PIPE NEEDLE VALVES

End	Connection	Pressure		Orifice					Di	mensio	ns, in. (m	m)					Valve
Connection Size in.	Туре	Rating	Part Number	in. (mm)	А	В	С	D1	D2	D3	E	F	G	н	j	L	Dimensions
2-WAY ST	RAIGHT																
1/4			15NV4N1V	0.25	2.00 (50.8)	1.00 (25.4)	2.00 (50.8)	1.63 (41.28)	1.19 (30.2)	100	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	4.84 (123.0)	0.25	1.00 (25.4)	
3/8		15,000 PSI	15NV6N1V	0.312 (7.9)	2.50 (63.5)	1.25	2.88 (73.2)	2.38 (60.4)	1.75 (44.5)	23	0.50	1.38 (35.0)	4.00 (102.0)	5.46 (139.0)	0.34 (8.7)	1.00 (25.4)	8
1/2	Female NPT		15NV8N1V	0.312 (7.9)	2.50 (63.5)	1.25	3,00 (76.2)	2.38 (60.4)	1.75 (44.5)	33	0.50	1.38	4.00 (102.0)	5.58 (142.0)	0.34 (8.7)	1.25	See Figure 1
3/4	51		10NV12N1V	0.438	3.00 (76.2)	1.50	3.75 (95.3)	3.00 (76.2)	2.25 (57.2)	S#8	0.62	1.75	8.07 (204.0)	7.07 (179.6)	0.44	1.38 (35.1)	
1		10,000 PSI	10NV16N1V	0.562	4.12 (104.6)	2.06 (52.3)	4.75 (120.7)	3.75 (95.3)	2.82 (71.6)		1.12 (28.4)	2.50 (63.5)	10.29 (261.4)	8.96 (227.6)	0.56 (14.2)	1.75 (44.5)	
2-WAY AI	NGLE																
1/4			15NV4N2V	0.25	2.00 (50.8)	1.00	2.44 (62.0)	(18)	1.19 (30.2)	320	0.38	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25	1.00 (25.4)	1
3/8		15,000 PSI	15NV6N2V	0.312 (7.9)	2.50 (63.5)	1.25	3.38 (85.9)	1000	1.75 (44.5)	200	0.50	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.00 (25.4)	8
1/2	Female NPT		15NV8N2V	0.312 (7.9)	2.50 (63.5)	1.25	3.38 (85.9)	0	1.75 (44.5)		0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.25 (31.6)	See Figure 2
3/4			10NV12N2V	0.438	3.00 (76.2)	1.50 (38.1)	4.25 (108.0)	(*)	2.25 (57.2)		0.62 (15.7)	1.75 (44.5)	8.07 (204.0)	7.57 (182.3(0.44 (11.2)	1.38 (35.1)	e.
1		10,000 PSI	10NV16N2V	0.562	4.12 (104.6)	2.06 (52.3)	5.13 (130.3)	100	2.82 (71.6)	3	1.12 (28.4)	2.50 (63.5)	10.29 (261.4)	8.96 (227.6)	0.56 (14.2)	1.75 (44.5)	
3-WAY/2	ON PRESS	URE				/	1.	A		0	100		0	100	1	12-1	W: 8
1/4			15NV4N3V	0.25	2.00 (50.8)	1.00	2.62 (66.5)	1.63	1.19 (30.2)	•	0.38 (9.7)	1.24 (31.5)	3.00 (76.2)	5,46 (139.0)	0.25	1.00 (25.4)	
3/8	Female NPT	15,000 PSI	15NV6N3V	0.312	2.50 (63.5)	1.25	3.62 (85.9)	2.38 (60.4)	1.75 (44.5)	7 .	0.50	1.38	4.00 (102.0)	6.20 (157.5)	0.34 (8.7)	1.00 (25.4)	See Figure 3
1/2			15NV8N3V	0.312	2.50 (63.5)	1.25	3.62	2.38	1.75	(3)	0.50	1.38	4.00	6.20	0.34 (8.7)	1.25	1 12

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

*For quick open version insert "Q" after "NV" in part number. Example: 15NVQ8N1V



PIPE NEEDLE VALVES

End	Connection	Pressure		Orifice			20 1		Di	mensior	ns, in. (m	m)					Valve
Connection Size in.	Туре	Rating	Part Number	in. (mm)	A	В	c	D1	D2	D3	E	F	G	H	J	î	Dimension
3-WAY/1	ON PRESSI	JRE															
1/4			15NV4N4V	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	2.44 (62.0)	1.19 (30.2)	\$1	\$	0.38	1.24 (31.5)	3.00 (76.2)	5.28 (134.1)	0.25	1.00 (25.4)	
3/8	Female NPT	15,000 PSI	15NV6N4V	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	29	26	0.50 (12.7)	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.00 (25.4)	See Figure 4
1/2			15NV8N4V	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	3.38 (85.9)	1.75 (44.5)	50	56	0.50	1.38 (35.0)	4.00 (102.0)	5.96 (152.0)	0.34 (8.7)	1.25 (31.6)	- ILIAWASSOLINI
3-WAY/2-	STEM MAI	NIFOLD															
1/4			15NV4N5V	0.25 (6.4)	2.00 (50.8)	1.00 (25.4)	3.38 (85.9)	1.69	1.19 (30.2)	1.19 (30.2)	0.38	1.24 (31.5)	3.00 (76.2)	9.06 (230.1)	0.25	1.00 (25.4)	
3/8	Female NPT	15,000 PSI	15NV6N5V	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)	See Figure 5
1/2			15NV8N5V	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)	1.25 (31.6)	
2-WAY AN	NGLE/REPL	ACEABLE	SEAT	10 10 1	1910	100	incec.	200	Visiti Cara	the the	0.00	1,10	turi ro	100	223 311	VIII I	
1/4			15NV4N6V	0.25	2.00 (50.8)	1.00 (25.4)	3.30 (83.8)	E	1.19 (30.2)	×	0.38	1.24	3.00 (76.2)	6.19 (157.2)	0.25	1.00 (25.4)	
3/8	Female NPT	15,000 PSI	15NV6N6V	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	4.51 (114.6)	12	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)	See Figure 6
1/2			15NV8N6V	0.312 (7.9)	2.50 (63.5)	1.25 (31.8)	4.62 (117.3)	36	1.75 (44.5)	8	0.50	1.38	4.00 (102.0)	7.20 (182.9)	0.34 (8.7)	1.50 (38.1)	TOWNSHING

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

*For quick open version insert "Q" after "NV" in part number. Example: 15NVQ8N1V

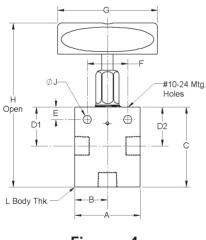
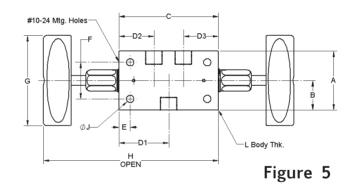
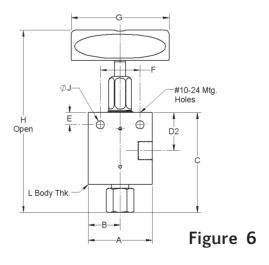


Figure 4





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PRECISION HIGH PRESSSURE

208-936-2063

PIPE CHECK VALVES

Specifications

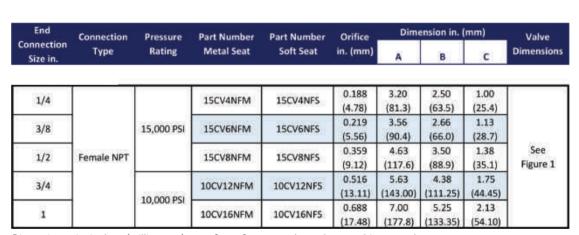
- MAWP up to 15,000 PSI (1034 bar).
- Temperature Ratings Metal Seat: 0°F to 400°F (-18°C to 204°C). Soft Seat: 0°F to 400°F (-18°C to 204°C).
- Nominal Cracking Pressure: 15 PSI (1 bar).
- Female NPT end connections are standard.

Features

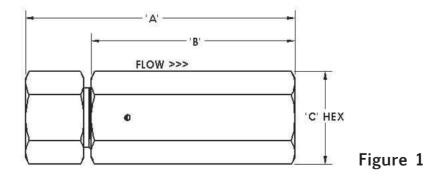
- Prevents reverse flow which may cause damage to a pressure system.
- Metal Seat offers metal-to-metal seat for rapid cycling or severe environments.
- Soft Seat offers PEEK seat with metal back-up for fast shutoff and reliable seal.
- Can be manufactured to meet NACE MR-01-75.



- 316 cold worked stainless steel is standard.
- PEEK 450G is standard material of soft seat poppet seal.



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



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Specifications

- MAWP up to 15,000 PSI (1034 bar).
- Female NPT end connections are standard.

Line Filters

- Line Filters are used to remove contaminating particles from fluid. Each line filer is provided with two filter elements. The upstream element to filter out larger particles, and the downstream element to filter smaller particles.
- Filter elements are available in nominal ratings of 0.5, 2, 5, 10, 20, 40 and 100 Micron.

Cup Filters

- Cup Filters offer maximum filtration surface area for removal of contaminating particles from the fluid system. They may be used in systems which require high flow rates with minimum pressure drop.
- Filter elements are available in nominal ratings of 5, 10, 20, 40 and 100 Micron.

Materials

- 316 cold worked stainless steel is standard.
- Filter discs are made from 300 series stainless steel.

End	Connection	Droccuro		Dime	nsion, in.	(mm)	Fitting
Connection Size in.	Туре	Pressure Rating	Part Number	Α	В	С	Dimensions
LINE FILTER				U.	00		
1/4			15LF4NF-*/*	2.13 (54.1)	1.50 (38.1)	1.00 (25.4)	<u>.</u>
3/8		15,000 PSI	15LF6NF-*/*	2.50 (63.5)	1.63 (41.4)	1.13 (28.7)	
1/2	Female NPT		15LF8NF-*/*	3.25 (82.55)	2.06 (52.32)	1.38 (35.1)	See Figure 1
3/4		10,000 PSI	10LF12NF-*/*	4.06 (103.12	2.88 (73.15)	1.75 (44.45)	
1		10,000 P31	10LF16NF-*/*	5.00 (127)	3.30 (83.82)	2.13 (54.10)	S.

^{*}Insert desired upstream/downstream micron filter Example: 15LF8NF-20/5 is a 1/2" FNPT Cup Filter with 20 micron upstream filter and 5 micron downstream filter.

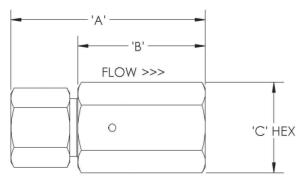


Figure 1

PIPE FILTERS

End	Connection	Pressure		Dime	nsion, in.	(mm)	Fitting
Connection Size in.	Туре	Rating	Part Number	Α	В	С	Dimensions
CUP FILTER				0.9	0.0	7%	e i
-1 la			15CEANE #	3.20	2.50	1.00	
1/4	1 1		15CF4NF-*	(81.3)	(63.5)	(25.4)	
3/8	† l	15,000 PSI	15CF6NF-*	3.56	2.66	1.13	-
3/0	1.	13,000 F31	TOCLOINE-	(90.4)	(66.0)	(28.7)	
1/2	Female		15CF8NF-*	4.63	3.50	1.38	See
1/2	NPT		13CFOINT-	(117.6)	(88.9)	(35.1)	Figure 2
3/4			10CF12NF-*	5.63	4.38	1.75	
3/4]	10,000 PSI	TOCFIZINF-	(143.00	(111.25	(44.45)	
1	† l	10,000 F31	10CF16NF-*	7.00	5.25	2.13	
######################################]		TOCETONE-	(177.8)	(133.35	(54.10)	

*Insert desired micron filter Example: 15CF8NF-5 is a 1/2" FNPT Cup Filter with 5 micron filter

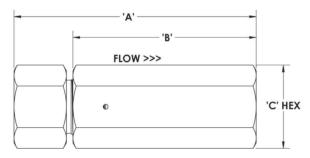


Figure 2

PIPE FITTINGS

Specifications

- NPT Fittings with MAWP up to 15,000 PSI (1034 bar).
- Female and Male NPT connections are standard.

Features

 Can be manufactured to meet NACE MR-01-75.

Materials

- 316 stainless steel is standard.
- Other materials available by request.



End				Din	nension, in. (n	nm)		-
Connection Size in.	Pressure Rating	Part Number	А	В	с	D	Block Thickness	Fitting Dimensions
FEMALE E	LBOW			Al I				
1/8		15L2NF	1.13 (28.7)	1.00 (25.4)	0.75 (19.1)	0.62 (15.7)	0.62 (15.7)	
1/4	15 000 001	15L4NF	1.50 (38.1)	1.25 (31.8)	1.00 (25.4)	0.81 (20.6)	0.75 (19.1)	
3/8	15,000 PSI	15L6NF	1.50 (38.1)	1.50 (38.1)	1.00 (25.4)	1.00 (25.4)	1.00 (25.4)	See
1/2		15L8NF	1.75 (44.4)	1.75 (44.4)	1.25 (31.8)	1.25 (31.8)	1.25 (31.8)	Figure 1
3/4	40 000 DCI	10L12NF	2.62 (66.5)	2.12 (53.8)	1.31 (33.3)	1.38 (35.1)	1.50 (38.1)	
1	10,000 PSI	10L16NF	3.00 (76.2)	2.56 (65.0)	1.69 (68.3)	1.69 (68.3)	1.75 (44.4)	
FEMALE T	EE		7.	6	3:		(5)	
1/8	1	15T2NF	1.50 (38.1)	1.00 (25.4)	0.75 (19.1)	0.62 (15.7)	0.62 (15.7)	
1/4		15T4NF	2.00 (50.8)	1.25 (31.8)	1.00 (25.4)	0.81 (20.6)	0.75 (19.1)	
3/8	15,000 PSI	15T6NF	2.00 (50.8)	1.50 (38.1)	1.00 (25.4)	1.00 (25.4)	1.00 (25.4)	See
1/2		15T8NF	2.50 (63.5)	1.75 (44.4)	1.25 (31.8)	1.25 (31.8)	1.25 (31.8)	Figure 2
3/4		10T12NF	2.62 (66.5)	2.12 (53.8)	1.31 (33.3)	1.38 (35.1)	1.50 (38.1)	
1	10,000 PSI	10T16NF	3.38 (85.9)	2.56 (65.0)	1.69 (68.3)	1.69 (68.3)	1.75 (44.4)	
EMALE C	ROSS):	9.	9			130	
1/8		15X2NF	1.50 (38.1)	1.50 (38.1)	0.75 (19.1)	0.75 (19.1)	0.62 (15.7)	
1/4	******	15X4NF	2.00 (50.8)	2.00 (50.8)	1.00 (25.4)	1.00 (25.4)	0.75 (19.1)	
3/8	15,000 PSI	15X6NF	2.00 (50.8)	2.00 (50.8)	1.00 (25.4)	1.00 (25.4)	1.00 (25.4)	See
1/2		15X8NF	2.50 (63.5)	2.50 (63.5)	1.25 (31.8)	1.25 (31.8)	1.25 (31.8)	Figure 3
3/4	10 000 551	10X12NF	2.70 (68.6)	2.70 (68.6)	1.31 (33.3)	1.31 (33.3)	1.50 (38.1)	
1	10,000 PSI	10X16NF	4.12 (104.6)	4.12 (104.6)	2.06 (52.3)	2.06 (52.3)	1.75 (44.4)	

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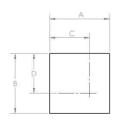


Figure 1

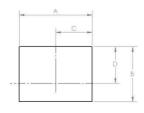


Figure 2



Figure 3

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PRECISION HIGH PRESSSURE

208-936-2063

PIPE FITTINGS

End Connection	Pressure	Part	Dimension	n, in. (mm)	Fitting
Size in.	Rating	Number	Α	В	Dimensions
COUPLING	ett o		7	n- 0	
1/4		15CU4NF	1.25 (31.8)	0.75 (19.1)	
3/8	15,000 PSI	15CU6NF	1.38 (35.1)	1.00 (25.4)	
1/2	80	15CU8NF	1.50 (38.1)	1.38 (35.1)	See Figure 4
3/4	10 000 PCI	10CU12NF	1.75 (44.4)	1.38 (35.1)	rigule 4
1	10,000 PSI	10CU16NF	2.18 (55.4)	1.75 (44.4)	
CAP					
1/8		15CA2NF	0.75 (19.1)	0.62 (15.7)	
1/4		15CA4NF	1.00 (25.4)	0.75 (19.1)	1
3/8	15,000 PSI	15CA6NF	1.00 (25.4)	1.00 (25.4)	See
1/2		15CA8NF	1.25 (31.8)	1.38 (35.1)	Figure 5
3/4	1010100	10CA12NF	1.50 (38.1)	1.38 (35.1)	1
1	10,000 PSI	10CA16NF	1.68 (42.7)	1.75 (44.4)	
PLUG					
1/8		15PL2NM	1.00 (25.4)	0.50 (12.7)	
1/4		15PL4NM	1.13 (28.7)	0.62 (15.7)	1
3/8	15,000 PSI	15PL6NM	1.13 (28.7)	0.75 (19.1)	See
1/2		15PL8NM	1.50 (38.1)	1.00 (25.4)	Figure 6
3/4		10PL12NM	1.50 (38.1)	1.38 (35.1)	1
1	10,000 PSI	10PL16NM	1.88 (47.6)	1.38 (35.1)	

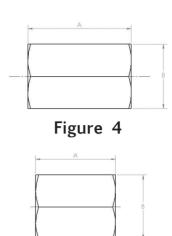


Figure 5

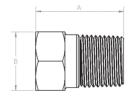


Figure 6

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

End Connection	Pressure	Part		D	imensio	n, in. (mr	n)		Fitting
Size in.	Rating	Number	Α	В	C	D	E	F	Dimensions
BULKHEAD									
1/4		15BU4NF	2.00 (50.8)	0.62 (15.7)	1.00 (25.4)	1.00 (25.4)	0.94 (23.9)	0.38 (9.7)	
3/8	15,000 PSI	15BU6NF	2.62 (66.5)	0.79 (20.1)	1.38 (35.1)	1.38 (35.1)	1.25 (31.6)	0.38 (9.7)	
1/2		15BU8NF	2.62 (66.5)	0.91 (23.1)	1.88 (47.8)	1.88 (47.8)	1.37 (34.8)	0.38 (9.7)	See Figure 7
3/4	10 000 001	10BU12NF	2.62 (66.5)	0.91 (23.1)	1.88 (47.8)	1.88	1.69 (42.9)	0.38 (9.7)	A Williams
1	10,000 PSI	108U16NF	3.50 (88.9)	1.50 (38.1)	2.13 (54.1)	2.13 (54.1)	1.94 (49.3)	0.38 (9.7)	



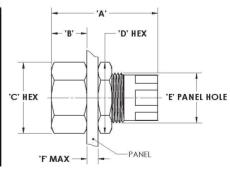


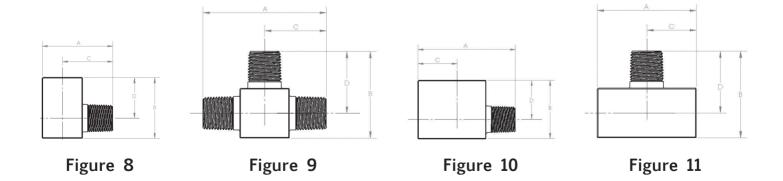
Figure 7

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

PIPE FITTINGS

End	Business			Din	nension, in. (n	nm)		Pleature
Connection Size in.	Pressure Rating	Part Number	A	В	С	D	Block Thickness	Fitting Dimensions
STREET EL	BOW							
1/8		15L2NM2NF	1.12 (28.5)	1.00 (25.4)	0.81 (20.6)	0.75 (19.1)	0.62 (15.7)	
1/4	45 000 001	15L4NM4NF	1.50 (38.1)	1.50 (38.1)	1.13 (28.7)	1.00 (25.4)	1.00 (25.4)	
3/8	15,000 PSI	15L6NM6NF	1.75 (44.4)	1.50 (38.1)	1.25 (31.8)	1.00 (25.4)	1.00 (25.4)	See
1/2		15L8NM8NF	2.25 (57.2)	2.00 (50.8)	1.63 (41.4)	1.20 (30.5)	1.25 (31.8)	Figure 8
3/4		10L12NM12NF	2.50 (63.5)	2.62 (66.5)	1.75 (44.4)	1.31 (33.3)	1.50 (38.1)	S 5850
1	10,000 PSI	10L16NM16NF	3.00 (76.2)	2.88 (73.2)	2.12 (53.8)	1.68 (42.7)	1.75 (44.4)	
MALE TEE								
1/8		15T2NM	1.50 (38.1)	1.13 (28.7)	0.75 (19.1)	0.81 (20.6)	0.62 (15.7)	
1/4		15T4NM	2.25 (57.2)	1.50 (38.1)	1.13 (28.7)	1.13 (28.7)	0.75 (19.1)	
3/8	15,000 PSI	15T6NM	2.50 (63.5)	1.75 (44.4)	1.25 (31.8)	1.25 (31.8)	1.00 (25.4)	See
1/2		15T8NM	3.00 (76.2)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.00 (25.4)	Figure 9
3/4		10T12NM	3.50 (88.9	2.62 (66.5)	1.75 (44.4)	1.75 (44.4)	1.50 (38.1)	2 500
1	10,000 PSI	10T16NM	4.25 (108.0)	3.00 (76.2)	2.12 (53.8)	2.12 (53.8	1.75 (44.4)	
MALE RUI	N TEE							
1/8		15T2NF2NM2NF	1.50 (38.1)	1.13 (28.7)	0.62 (15.7)	0.75 (19.1)	0.62 (15.7)	
1/4		15T4NF4NM4NF	2.00 (50.8	1.38 (35.1)	0.81 (20.6)	1.00 (25.4)	0.75 (19.1)	
3/8	15,000 PSI	15T6NF6NM6NF	2.50 (63.5)	1.50 (38.1)	1.00 (25.4)	1.00 (25.4)	1.00 (25.4)	See
1/2		15T8NF8NM8NF	2.75 (69.9)	1.75 (44.4)	1.25 (31.8)	1.25 (31.8)	1.38 (35.1)	Figure 10
3/4		10T12NF12NM12NF	3.12 (79.2)	2.62 (66.5)	1.31 (33.3)	1.31 (33.3)	1.50 (38.1)	i z
1	10,000 PSI	10T16NF16NM16NF	4.25 (108.0)	3.00 (76.2)	2.12 (53.8)	2.12 (53.8	1.75 (44.4)	
MALE BRA	ANCH TEE							
1/8		15T2NF2NF2NM	1.50 (38.1)	1.13 (28.7)	0.75 (19.1)	0.81 (20.6)	0.62 (15.7)	
1/4		15T4NF4NF4NM	2.00 (50.8	1.50 (38.1)	1.00 (25.4)	1.13 (28.7)	0.75 (19.1)	
3/8	15,000 PSI	15T46NF6NF6NM	2.00 (50.8	1.75 (44.4)	1.00 (25.4)	1.25 (31.8)	1.00 (25.4)	5ee
1/2		15T8NF8NF8NM	2.50 (63.5)	2.25 (57.2)	1.25 (31.8)	1.63 (41.4)	1.25 (31.8)	Figure 11
3/4	40.000.00	10T12NF12NF12NM	2.62 (66.5)	2.50 (63.5)	1.31 (33.3)	1.75 (44.4)	1.50 (38.1)	
1	10,000 PSI	10T16NF16NF16NM	3.37 (85.6)	3.00 (76.2)	1.69 (42.9)	2.13 (54.1)	1.75 (44.4)	

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



Standard Type

Specifications

- MAWP up to 100,000 PSI (6894 bar).
- Temperature Ratings: 0°F to 400°F (-18°C to 204°C).
- Female Cone and Thread connections are standard.
- Vee type stem is standard.

Features & Benefits

- Standard valve fully opens in 4 ½ turns.
- Standard ³/₄" and 1" valve fully opens in as little as 3 turns, compared to 9 turns for industry standard valves.
- Two-piece, heavy-duty, non-rotating stem for a robust and reliable assembly.
- Bi-directional flow capability. Simplifies system designs.
- Packing gland 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.



- Valve is fully open in as little as $1^{3}/_{4}$ turns.
- Stem is lifted off of the seat a minimum of 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.

Options

- Solid Stainless Steel or Aluminum Handle.
- Replaceable Seat design for use in harsh environments.
- Air Actuators for Remote Valve Actuator.
- Grafoil Packing for temperature up to 800°F.
- Extended Stuffing Box for temperatures up to 1200°F.
- Extended Stuffing Box for temperatures down to -423°F.
- Can be manufactured to meet NACE MR-01-75.
- Wide range of construction materials available.

Standard Materials

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



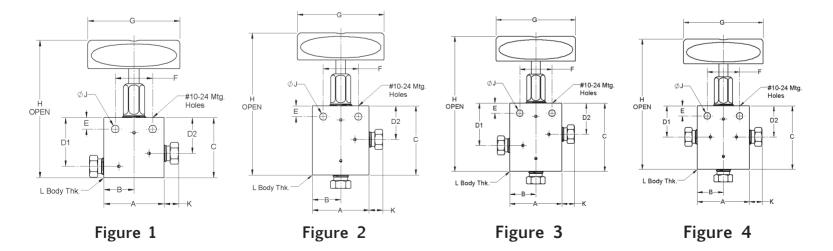
End	Connection	Pressure	AND THE RESERVE	Orifice						Dimer	nsions, in	. (mm)				15		Valve						
onnection Size in.	Туре	Rating	Part Number	in. (mm)	A	В	c	D1	D2	D3	E	F	G	н	J	K	U	Dimensio						
-WAY ST	RAIGHT																							
		th.	2010/41/41/	0.125	2.00	1.00	2.00	1.63	1.19		0.38	1.24	3.00	4.84	0.25	0.38	1.00							
1/4			20NV4M1V	(3.2)	(50.8)	(25.4)	(50.8)	(41.3)	(30.2)		(9.7)	(31.5)	(76.2)	[123.0)	(6.4)	(9.7)	(25.4)							
3/8	20074		20NV6M1V	0.20	2.00	1.00	2.00	1.63	1.19		0.38	1.24	3.00	4.84	0.25	0.48	1.00							
POPE CALLED	Medium Pressure			(5.1)	(50.8)	1.25	(50.8)	(41.3)	1.75		(9.7)	(31.5)	4.00	(123.0)	0.34	0.68	1.00							
9/16	Cone &	20,000 PSI	20NV9M1V	(7.9)	(63.5)	(31.8)	(73.2)	(60.5)	(44.5)		(12.7)	(35.0)	(102.0)	(138.7)	(8.7)	(17.3)	(25.4)							
2/4	Thread	2	2010/2214114	0.438	3.00	1.50	3.75	3.00	2.25		0.62	1.75	8.07	7.07	0.44	0.59	1.38							
3/4			20NV12M1V	(11.13)	(76.2)	(38.1)	(95.3)	(76.2)	(57.2)		(15.7)	(44.5)	(204.0)	(179.6)	(11.2)	(15.0)	(35.1)							
1			20NV16M1V	0.562	4.12	2.06	4.75	3.75	2.82		1.12	2.50	10.29	8.96	0.56	0.74	1.75							
146-0			DESCRIPTION OF STREET	(14.27)	(104.6)	(52.3)	(120.7)	(95.3)	(71.6)		(28.4)	(63.5)	(261.4)	(227.6)	(14.2)	(18.8)	(44.5)							
- 5		XI.		0.093	2.00	1.00	2.00	1.50	1.12		0.38	1.38	3.00	4.74	0.28	0.59	1.00	See						
1/4	High		30NV4H1V	(2.4)	(50.8)	(25.4)	(50.8)	(38.1)	(28.5)		(9.7)	(35.0)	(76.2)	(120.4)	(7.1)	(15.0)	(25.4)	Figure						
3/8	Pressure	30,000 PSI	30NV6H1V	0.125	2.00	1.00	2.00	1.50	1.12		0.38	1.38	3.00	4.74	0.28	0.72	1.00							
99.00	Cone &	39,000,131	SULTUINE	(3.2)	(50.8)	(25.4)	(50.8)	(38.1)	(28.5)		(9.7)	(35.0)	(76.2)	(120.4)	(7.1)	(18.3)	(25.4)							
9/16	Thread		30NV9H1V	(3.2)	(66.5)	(33.3)	(62.0)	1.56 (39.6)	(28.5)		(9.7)	1.38 (35.0)	(76.2)	5.18 (131.6)	(7.1)	1.00	(38.1)							
				(3.2)	(00.3)	(43.3)	1 (02.0)	(33.0)	[(20.5)		1 (2.7)	[[33.0]	[[////]	[[131,0]]	(1.1)	1 (2.3.4)	1 (30.1)							
+74		1	60NV4H1V	0.062	2.00	1.00	2.12	1.69	1.31		0.38	1.38	3.00	4.89	0.28	0.59	1.00	ĺ						
1/4	High	3	PONVALITA	(1.6)	(50.8)	(25.4)	(53.8)	(42.9)	(33.3)		(9.7)	(35.0)	(76.2)	(124.2)	(7.1)	(15.0)	(25.4)							
3/8	Pressure	60,000 PSI	60NV6H1V	0.062	2.00	1.00	2.25	1.69	1.31		0.38	1.38	3.00	5.02	0.28	0.72	1.00							
	Cone &	5		0.012	(50.8)	1.31	(57.2)	1.75	(33.3)		(9.7)	1.38	3.00	(127.5)	0.28	1.00	1.50							
9/16	Thread				60NV9H1V	(0.03)	(66.5)	(33.3)	(63.5)	(44.5)	(33.3)		(9.7)	(35.0)	(76.2)	(133.9)	(7.1)	(25.4)	(38.1)					
-WAY A	NGLE	3									A STATE OF		T. C. S. S. S. S.		ASSESSED NO.			- Name of the	LA ALEXANDER	A STATE OF		Constant	1.122.24	
747K						0.125	2.00	1.00	2.44		1.19		0.38	1.24	3.00	5.28	0.25	0.38	1.00					
1/4			20NV4M2V	(3.2)	(50.8)	(25.4)	(62.0)		(30.2)		(9.7)	(31.5)	(76.2)	(134.1)	(6.4)	(9.7)	(25.4)							
3/8	00060000000		20NV6M2V	0.20	2.00	1.00	2.44		1.19		0.38	1.24	3.00	5.28	0.25	0.48	1.00							
26.2	Medium	1	25000000	(5.1)	(50.8)	(25.4)	(62.0)		(30.2)		(9.7)	(31.5)	(76.2)	(134.1)	(6.4)	(12.2)	(25.4)							
9/16	Pressure Cone &	20,000 PSI	20NV9M2V	(7.9)	(63.5)	1.25	3.38 (85.9)		1.75 (44.5)		(12.7)	1.38 (35.0)	(102.0)	5.96 (151.4)	(8.7)	(17.3)	(25.4)							
	Thread	3		0.438	3.00	1.50	4.25		2.25		0.62	1.75	8.07	7.56	0.44	0.59	1.38							
3/4			20NV12M2V	(11.13)	(76.2)	(38.1)	(108.0)		(57.2)		(15.7)	(44.5)	(204.0)	(192.0)	(11.2)	(15.0)	(35.1)							
1	Ī	1	20NV16M2V	0.562	4.12	2.06	5.13		2.82		1.12	2.50	10.29	9.45	0.56	0.74	1.75							
(#) I		,,	201471014124	(14.27)	(104.5)	(52.3)	(130.3)		(71.6)		(28.4)	(63.5)	(261.4)	(240.0)	(14.2)	(18.8)	(44.5)							
	· · · · · · · · · · · · · · · · · · ·	//		0.093	2.00	1.00	2.00	I	1.12		0.38	1.38	3.00	4.74	0.28	0.59	1.00	0.833						
1/4	High		30NV4H2V	(2.4)	(50.8)	(25.4)	(50.8)		(28.5)		(9.7)	(35.0)	(76.2)	(120.4)	(7.1)	(15.0)	(25.4)	See Figure						
arry se	Pressure	NA MAN NA		0.125	2.00	1.00	2.12		1.12		0.38	1.38	3.00	4.86	0.28	0.72	1.00	rigure						
3/8	Cone &	30,000 PSI	30NV6H2V	(3.2)	(50.8)	(25.4)	(53.8)		(28.5)		(9.7)	(35.0)	(76.2)	(123.4)	(7.1)	(18.3)	(25.4)							
9/16	Thread	one & hread	30NV9H2V	0.125	2.62	1.31	2.44		1.12		0.38	1.38	3.00	5.18	0.28	1.00	1.50							
3/10			JUNTANIET	(3.2)	(66.5)	(33.3)	(62.0)		(28.5)		(9.7)	(35.0)	(76.2)	(131.6)	(7.1)	(25.4)	(38.1)							
20.00			To provide a service of	0.063	2.00	1.00	2.20	2 0	1 21		0.20	1.20	3.00	E4E	0.20	0.50	1.00							
1/4	High		60NV4H2V	0.062	(50.8)	(25.4)	(60.5)		1.31 (33.3)		(9.7)	1.38	(76.2)	5.15 (130.8)	(7.1)	(15.0)	(25.4)							
272	Pressure	221202020203	F22200000000	0.062	2.00	1.00	2.62		1.31		0.38	1.38	3.00	5.39	0.28	0.72	1.00							
3/8	Cone &	60,000 PSI	60NV6H2V	(1.6)	(50.8)	(25.4)	(66.5)		(33.3)		(9.7)	(35.0)	(76.2)	(136.9)	(7.1)	(18.3)	(25.4)							
9/16	Thread		60NV9H2V	0.012	2.62	1.31	2.81		1.31		0.38	1.38	3.00	5.58	0.28	1,00	1.50							
3/10				3011731124	(0.03)	(66.5)	(33.3)	(71.4)		(33.3)		(9.7)	(35.0)	(76.2)	(141.7)	(7.1)	(25.4)	(38.1)						

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



End	Connection	Pressure		Orifice .			,	,, ,		Dime	nsions, ir	n. (mm)				,	,	Valve					
onnection Size in.	Туре	Rating	Part Number	in. (mm)	A	В	с	D1	D2	D3	E	F	G	н	ı	к	L	Dimension					
-WAY/2	ON PRESSU	JRE																					
1/4	- VACADILATING		20NV4M3V	0.125	2.00	1.00	2.62	1.63	1.19		0.38	1.24	3.00	5.46	0.25	0.38	1.00						
347.00	Medium		20144-110134	(3.2)	(50.8)	(25.4)	(66.5)	(41.3)	(30.2)		(9.7)	(31.5)	(76.2)	(138.7)	(6.4)	(9.7)	(25.4)						
3/8	Pressure	20,000 PSI	20NV6M3V	0.20	2.00	1.00	2.62	1.63	1.19		0.38	1.24	3.00	5.46	0.25	0.48	1.00	1					
555	Cone &	DOMESTIC: CALL		(5.1)	(50.8)	(25.4)	(66.5)	(41.3)	(30.2)		(9.7)	(31.5)	(76.2)	(138.7)	(6.4)	(12.2)	(25.4)	6					
9/16	Thread		20NV9M3V	0.312	2.50	1.25	3.63	1.75	1.75		0.50	1.38	4.00	6.21	0.34	0.68	1.00						
his Million			anconsoratio,	(7.9)	(63.5)	(31.8)	(92.2)	(44.5)	(44.5)		(12.7)	(35.0)	(102.0)	(157.7)	(8.7)	(17.3)	(25.4)	5.					
DOM:		-	ř	0.002	2.00	* 00	Longon	1.50	2.22	-	0.38	1 . 20	3.00	Lares	0.28	0.59	1.00	ē.					
1/4	High		30NV4H3V	0.093	di Co	1.00	2.12	1.50	1.12		100	1.38	49	4.86	75 100	75 187	1.00						
1000	Pressure	200000000000000000000000000000000000000	-	0.125	(50.8)	1.00	(53.8)	1.50	(28.5)		(9.7)	1.38	3.00	5.24	0.28	(15.0)	1.00	See					
3/8	Cone &	30,000 PSI	30NV6H3V	(3.2)	(50.8)	(25.4)	(63.5)	(38.1)	(28.5)		(9.7)	(35.0)	(76.2)	(133.1)	(7.1)	(18.3)	(25.4)	Figure :					
	Thread			0.125	2.62	1.31	2.88	1.56	1.12		0.38	1.38	3.00	5.62	0.28	1.00	1.50	rigure					
9/16	WASSAS.		30NV9H3V	(3.2)	(66.5)	(33.3)	(73.2)	(39.6)	(28.5)		(9.7)	(35.0)	(76.2)	(142.7)	(7.1)	(25.4)	(38.1)						
				(3.2)	(00:3)	[33,3]	173.21	(33.0)	(20.5)		13.71	1 (33.0)	1 (10.2)	11142.77	(7+1)	1 (23.4)	1 (30.1)	8					
20				0.062	2.00	1.00	2.38	1.69	1.31		0.38	1.38	3.00	5.15	0.28	0.59	1.00	2					
1/4	High		60NV4H3V	(1.6)	(50.8)	(25.4)	(60.5)	(42.9)	(33.3)		(9.7)	(35.0)	(76.2)	(130.8)	(7.1)	(15.0)	(25.4)						
989	Pressure	182818181818AV	Passassassas V	0.062	2.00	1.00	2.75	1.69	1.31		0.38	1.38	3.00	5.52	0.28	0.72	1.00	G					
3/8	Cone &	60,000 PSI	60NV6H3V	(1.6)	(50.8)	(25.4)	(69.9)	(42.9)	(33.3)		(9.7)	(35.0)	(76.2)	(140.2)	(7.1)	(18.3)	(25.4)						
LWYCONSTR	Thread			Supramountment	0.012	2.62	1.31	3.03	1.75	1.31		0.38	1.38	3.00	5.82	0.28	1.00	1.50	2				
9/16	INVESTIGATION !	l,	60NV9H3V	(0.03)	(66.5)	(33.3)	(77.0)	(44.5)	(33.3)		(9.7)	(35.0)	(76.2)	(147.8)	(7.1)	(25.4)	(38.1)	,					
-WAY/1	ON PRESSI	JRE																					
1000		- Stock	Sesavinski albeni	0.125	2.00	1.00	2.44	1.19	1.19		0.38	1.24	3.00	5.28	0.25	0.38	1.00						
1/4	Medium Pressure Cone & 20,000 PSI					Pressure		20NV4M4V	(3.2)	(50.8)	(25.4)	(62.0)	(30.2)	(30.2)		(9.7)	(31.5)	(76.2)	(134.1)	(6.4)	(9.7)	(25.4)	
09490		Pressure	Pressure	0.0000000000000000000000000000000000000	(0.000000000000000000000000000000000000		Same and the same of	0.20	2.00	1.00	2,44	1.19	1.19		0.38	1.24	3.00	5.28	0.25	0.48	1.00	ē.	
3/8				20,000 PSI	20NV6M4V	(5.1)	(50.8)	(25.4)	(62.0)	(30.2)	(30.2)		(9.7)	(31.5)	(76.2)	(134.1)	(6.4)	(12.2)	(25.4)				
1000MONORCE	Thread		Description Cont.	0.312	2.50	1.25	3.38	1.75	1.75		0.50	1.38	4.00	5.96	0.34	0.68	1.00						
9/16	5W8450955		20NV9M4V	(7.9)	(63.5)	(31.8)	(85.9)	(44.5)	(44.5)		(12.7)	(35.0)	(102.0)	(151.4)	(8.7)	(17.3)	(25.4)						
							telements.	Andrew City	Andrews Steel		and a real of						Malacan Ma						
492			DONNESSEE	0.093	2.00	1.00	2.00	1.12	1.12		0.38	1.38	3.00	4.74	0.28	0.59	1.00						
1/4	High		30NV4H4V	(2.4)	(50.8)	(25.4)	(50.8)	(28.5)	(28.5)		(9.7)	(35.0)	(76.2)	(120.4)	(7.1)	(15.0)	(25.4)						
2/0	Pressure	30,000 PSI	30NV6H4V	0.125	2.00	1.00	2.12	1.12	1.12		0.38	1.38	3.00	4.86	0.28	0.72	1.00	See					
3/8	Cone &	30,000 PSI	30NV6H4V	(3.2)	(50.8)	(25.4)	(53.8)	(28.5)	(28.5)	0	(9.7)	(35.0)	(76.2)	(123.4)	(7.1)	(18.3)	(25.4)	Figure 6					
9/16	Thread	Thread :	30NV9H4V	0.125	2.62	1.31	2.44	1.12	1.12		0.38	1.38	3.00	5.18	0.28	1.00	1.00	75.12					
3/10	· ·		3011191141	(3.2)	(66.5)	(33.3)	(62.0)	(28.5)	(28.5)		(9.7)	(35.0)	(76.2)	(131.6)	(7.1)	(25.4)	(25.4)						
											The House of												
1/4	MESS		60NV4H4V	0.062	2.00	1.00	2.38	1.31	1.31		0.38	1.38	3.00	5.15	0.28	0.59	1.00						
ALC:	High			(1.6)	(50.8)	[25.4]	(60.5)	(33.3)	(33.3)		(9.7)	(35.0)	(76.2)	(130.8)	(7.1)	(15.0)	(25.4)						
3/8	Pressure		60 000 PS1	60 000 001	60NV6H4V	0.062	2.00	1.00	2.62	1.31	1.31		0.38	1.38	3.00	5.39	0.28	0.72	1.00				
200.20	Cone &	20,000 (3)	SOLITOLITY	(1.6)	(50.8)	(25.4)	(66.5)	(33.3)	(33.3)		(9.7)	(35.0)	(76.2)	(136.9)	(7.1)	(18.3)	(25.4)	S					
9/16	Thread		60NV9H4V	0.012	2.62	1.31	2,81	1,31	1.31		0.38	1.50	3.00	5.58	0.28	1.00	1.50						
35000		Thread	0011731147	(0.03)	(66.5)	(33.3)	(71.4)	(33.3)	(33.3)	,	(9.7)	(38.1)	(76.2)	(141.7)	(7.1)	(25.4)	(38.1)	,					

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



End	Connection	Pressure		Orifice Dimensions, in. (mm)								Valve								
Connection Size in.	Type	Rating	Part Number	in. (mm)	A	В	С	D1	DZ	D3	E	F	G	н	138	к	πe	Dimension		
-WAY/2-	STEM MAI	NIFOLD																		
-32			***************************************	0.125	2.00	1.00	3.38	1.69	1.19	1.19	0.38	1.24	3.00	9.06	0.25	0.38	1.00			
1/4	Medium		20NV4M5V	(3.2)	(50.8)	(25.4)	(85.9)	(42.9)	(30.2)	(30.2)	(9.7)	(31.5)	(76.2)	(230.1)	(6.4)	(9.7)	(25.4)			
3/8	Pressure	20,000,001	20NV6M5V	0.20	2.00	1.00	3.38	2.56	1.75	1.75	0.38	1.24	3.00	9.06	0.25	0.48	1.00			
3/0	Cone &	20,000 PSI	ZUNVONISV	(5.1)	(50.8)	(25.4)	(85.9)	(65.0)	(44.5)	(44.5)	(9.7)	(31.5)	(76.2)	(230.1)	(6.4)	(12.2)	(25.4)			
9/16	Thread		20NV9M5V	0.312	2.50	1.25	5.12	2.56	1.75	1.75	0.50	1.38	4.00	10.28	0.34	0.68	1.00			
3/10	Semilarar C		2011/1911/191	(7.9)	(63.5)	(31.8)	(130.0)	(65.0)	(44.5)	(44.5)	(12.7)	(35.0)	(102.0)	(261.1)	(8.7)	(17.3)	(25.4)			
	V-1		700	n i i i i i i i i i i i i i i i i i i i	40 Jan 1900			200-000		NOVE III	navez-servini Ser			VI	XXXXXX	er eventuez en				
1/4			30NV4H5V	0.093	2.00	1.00	3.06	1.53	1.12	1.12	0.38	1.38	3.00	8.54	0.28	0.59	1.00			
17.9	High		SOMANISA	(2.4)	(50.8)	(25.4)	(77.7)	(38.9)	(28.4)	(28.4)	(9.7)	(35.0)	(76.2)	(216.9)	(7.1)	(15.0)	(25.4)			
	Pressure			0.125	2.00	1.00	3.25	1.62	1.12	1.12	0.38	1.38	3.00	8.73	0.28	0.72	1.00			
3/8	Cone &	30,000 PSI	30NV6H5V	(3.2)	(50.8)	(25.4)	[82.6]	(41.2)	(28.4)	(28.4)	(9.7)	(35.0)	(76.2)	(221.7)	(7.1)	(18.3)	(25.4)	See		
MACH	Thread		inter-to-more	(3.2)	(20.0)	(23.4)	[02.0]	142.21	120.4)	(20.4)	(3.7)	(33.0)	170.21	(221.7)	(7.2)	(10.5)	[23.4]	Figure		
9/16	rincou.		30NV9H5V	0.125	2.62	1.31	3.75	1.88	1.12	1.12	0.38	1.38	3.00	9.23	0.28	1.00	1.50			
3670			3014431134	(3.2)	(66.5)	(33.3)	(95.3)	(47.8)	(28.4)	(28.4)	(9.7)	(35.0)	(76.2)	(234.4)	(7.1)	(25.4)	(38.1)			
	40		F 52							1				v -		Q0 T				
1/4			60NV4H5V	0.062	2.00	1.00	3,44	1.72	1.31	1.31	0.38	1.38	3.00	8.98	0.28	0,59	1.00			
4670	High		CONTINUE	(1.6)	(50.8)	(25.4)	(87.4)	(43.7)	(33.3)	(33.3)	(9.7)	(35.0)	(76.2)	(228.1)	(7.1)	(15.0)	(25.4)			
	Pressure 60,000 PSI		1	0.062	2.00	1.00	3.75	1.88	1.31	1.31	0.38	1.38	3.00	9.29	0.28	0.72	1.00			
3/8		60,000 PSI	60NV6H5V	(1.6)	(50.8)	(25.4)	(95.3)	(47.8)	(33.3)	(33.3)	(9.7)	(35.0)	(76.2)	(236.0)	(7.1)	(18.3)	(25.4)			
	Thread	111111111111111111111111111111111111111		N=35	BEAT THE	25000	District	MARK		Mary 1	9.0	100	No.	(ARREIT	3000	ARRE	10-24-14			
9/16				60NV9H5V	0.012	2.62	1.31	4.12	2.06	1.31	1.31	0.38	1.38	3.00	9.66	0.28	1.00	1.50		
	L.			(0.03)	(66.5)	(33.3)	(104.7)	(82.3)	(33.3)	(33.3)	(9.7)	(35.0)	(76.2)	(245.4)	(7.1)	(25.4)	(38.1)			
-WAY A	NGLE/REPL	ACEABLE S	SEAT																	
*11	Ť.	Medium Pressure	Medium	DONINGALACIA	0.125	2.00	1.00	3.30		1.19		0.38	1.24	3.00	6.04	0.25	0.38	1.00		
1/4	Medium			Medium	Medium	20NV4M6V	(3.2)	(50.8)	(25.4)	(83.8)	- 22	(30.2)	1.5	(9.7)	(31.5)	(76.2)	(153.4)	(6.4)	(9.7)	(25.4)
570	Pressure		20NV6M6V	0.20	2.00	1.00	3.30	- 12	1.19	52	0.38	1.24	3.00	5.04	0.25	0.48	1.00			
3/8	Cone &	20,000 PSI	2014/01/16/	(5.1)	(50.8)	(25.4)	(83.8)		(30.2)		(9.7)	(31.5)	(76.2)	(153.4)	(6.4)	(12.2)	(25.4)			
9/16	Thread		20NV9M6V	0.312	2.50	1.25	4.63		1.75		0.50	1.38	4.00	7.21	0.34	0.68	1.00			
9/10			ZUNVSIVIEV	(7.9)	(63.5)	(31.8)	(117.6)	37	(44.5)	95	(12.7)	(35.0)	(102.0)	(183.1)	(8.7)	(17.3)	(25.4)			
	00		95 90	0.	7V 1	9	S 0		SY S	s - 5	a .	5 Y		v s		ia a				
1/4	CHORES	Liver I	30NV4H6V	0.093	2.00	1.00	3.12	75	1.12	79	0.38	1.38	3.00	5.83	0.28	0.59	1.00			
1/40	High		3014441104	(2.4)	(50.8)	(25.4)	(79.2)		(28.5)		(9.7)	(35.0)	(76.2)	(148.1)	(7.1)	(15.0)	(25.4)			
3/8	Pressure	30,000 PSI	30NV6H6V	0.125	2.00	1.00	3.39		1.12		0.38	1.38	3.00	6.09	0.28	0,72	1.00	See		
3/0	Cone &	30,000 1 31	3011101101	(3.2)	(50.8)	(25.4)	(86.1)	- 65	(28.5)	. 10	(9.7)	(35.0)	(76.2)	(154.7)	(7.1)	(18.3)	(25.4)	Figure		
9/16	Thread		30NV9H6V	0.125	2.62	1.31	3.82	12	1.19	92	0.38	1.38	3.00	6.52	0.28	1.00	1.50			
3,10			5014431304	(3.2)	(66.5)	(33.3)	(97.0)		(30.2)		(9.7)	(35.0)	(76.2)	(165.6)	(7.1)	(25.4)	(38.1)			
			W (V)		nvon stor		100		02 /112		200		100	100						
1/4			60NV4H6V	0.062	2.00	1.00	3.45	12	1.31	- 02	0.38	1.38	3.00	6.19	0.28	0.59	1.00			
250	High		200	(1.6)	(50.8)	(25.4)	(87.6)		(33.3)		(9.7)	(35.0)	(76.2)	(157.2)	(7.1)	(15.0)	(25.4)			
3/8	Pressure	Processo	60NV6H6V	0.062	2.00	1.00	3.75		1.31	176	0.38	1.38	3.00	6.49	0.28	0.72	1.00			
5/0	Cone &	60.000 PSt 6	60,000 PSI 60	60,000 PSI 60	5011101101	(1.6)	(50.8)	(25.4)	(95.25)		(33.3)		(9.7)	(35.0)	(76.2)	(164.8)	(7.1)	(18.3)	(25.4)	
9/16	Thread		60NV9H6V	0.012	2.62	1.31	4.00		1.31		0.38	1.38	3.00	6.74	0.28	1.00	1.50			
24.40		UNIVERSITY I	5/16	CONTRACTOR	(0.03)	(66.5)	(33.3)	(101.6)		(33.3)	- 55	(9.7)	(35.0)	(76.2)	(171.2)	(7.1)	(25.4)	(38.1)		

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

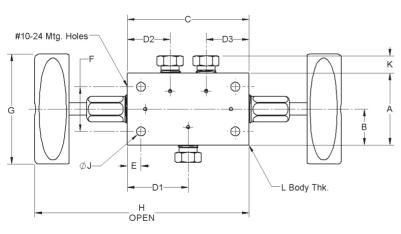


Figure 5

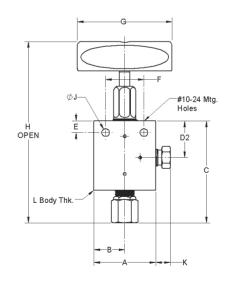


Figure 6

16

PRECISION HIGH PRESSSURE

208-936-2063

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MEDIUM AND HIGH PRESSURE CHECK VALVE

Specifications

- MAWP up to 100,000 PSI (6895 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).

- Female Cone and Thread connections
- are standard.



Features

- Prevents reverse flow which may cause damage to a pressure system.
- Metal Seat offers metal-to-metal seat for rapid cycling or severe environments.
- Soft Seat offers PEEK seat with metal back-up for fast shutoff and reliable seal.
- Can be manufactured to meet NACE MR-01-75.

Materials

- 316 cold worked stainless steel is standard.
- PEEK 450G is standard material of soft seat poppet seal.

End	Connection	Pressure	Part Number	Part Number	Orifice	Dimer	nsion in.	(mm)	. Valve	
Connection Size in.	Type	Rating	Metal Seat	Soft Seat	in. (mm)	А	В	С	Dimensions	
MEDIUM I	PRESSURE									
1/4			20CV4MFM	20CV4MFS	0.125 (3.18)	3.07 (78.0)	2.50 (63.5)	1.00 (25.4)		
3/8	Medium Pressure Cone & Thread	Pressure		20CV6MFM	20CV6MFS	0.219 (5.56)	3.48 (88.4)	2.66 (66.0)	1.13 (28.7)	
9/16			20,000 PSI	20CV9MFM	20CV9MFS	0.359 (9.12)	4.76 (120.9)	3.50 (88.9)	1.38	See Figure 1
3/4			20CV12MFM	20CV12MFS	0.516 (13.11)	5.63 (143.00)	4.38 (111.25	1.75 (44.45)	w Manumo	
1			20CV16MFM	20CV16MFS	0.688	7.00 (177.8)	5.25 (133.35	2.13 (54.10)		
HIGH PRES	SURE									
1/4	ur-t n		60CV4HFM	60CV4HFS	0.094 (2.39)	3.26 (82.8)	2.50 (63.5)	1.25		
3/8	High Pressure Cone &	60,000 PSI	60CV6HFM	60CV6HFS	0.125 (3.18)	3.75 (95.25)	2.75 (69.9)	1.25 (31.8)	See Figure 2	
9/16	Inread	Thread	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.

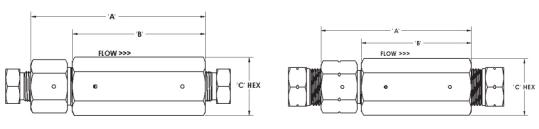


Figure 1 Figure 2

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IEDIUM AND HIGH PRESSURE FILTERS

Specifications

- MAWP up to 60,000 PSI (4136 bar).
- Female Cone and Thread connections are standard.

Line Filters

- Line Filters are used to remove contaminating particles from fluid. Each line filer is provided with two filter elements. The upstream element to filter out larger particles, and the downstream element to filter smaller particles.
- Filter elements are available in nominal ratings of 0.5, 2, 5, 10, 20, 40 and 100 Micron.

Cup Filters

- Cup Filters offer maximum filtration surface area for removal of contaminating particles from the fluid system. They may be used in systems which require high flow rates with minimum pressure drop.
- Filter elements are available in nominal ratings of 5, 10, 20, 40 and 100 Micron.

Materials

- 316 cold worked stainless steel is standard.
- Filter discs are made from 300 series stainless steel.

End	Connection	Pressure		Dime	ension, in.	(mm)	Fitting	
Connection Size in.	Туре	Rating	Part Number	A	В	С	Dimensions	
LINE FILTE	R							
1/4			20LF4MF-*/*	2.13 (54.1)	1.50 (38.1)	1.00 (25.4)		
3/8	Medium		20LF6MF-*/*	2.50 (63.5)	1.63 (41.4)	1.13 (28.7)		
9/16	Pressure Cone &		20,000 PSI	20LF9MF-*/*	3.25 (82.55)	2.06 (52.3)	1.38 (35.1)	See Figure 1
3/4	Thread		20LF12MF-*/*	4.06 (103.1)	2.88 (73.15)	1.75 (44.45)		
1			20LF16MF-*/*	5.00 (127.0)	3.30 (83.82)	2.13 (54.10)		
	· · · · · · · · · · · · · · · · · · ·			S: 29	731			
1/4	High		60LF4HF-*/*	3.00 (76.2)	2.13 (54.1)	1.25 (31.8)		
3/8	Pressure Cone &	ressure 60 000 PSI	60LF6HF-*/*	3.00 (76.2)	2.13 (54.1)	1.25 (31.8)	See Figure 2	
9/16	Thread		60LF9HF-*/*	3.88 (98.6)	2.63 (66.8)	1.50 (38.1)	80	

*Insert desired micron filter

Example: 20LF9MF-5/20 is a 9/16" MP Line Filter with 5 micron upstream filter and 20 micron downstream filter.

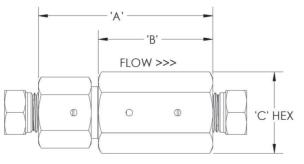


Figure 1

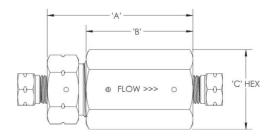


Figure 2

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PRECISION HIGH PRESSSURE

208-936-2063

MEDIUM AND HIGH PRESSURE FILTERS

End	Connection	Pressure		Dime	ension, in.	(mm)	Fitting	
Connection Size in.	Туре	Rating	Part Number	Α	В	С	Dimensions	
CUP FILTER	ł							
1/4			20CF4MF-*	3.07 (78.0)	2.50 (63.5)	1.00 (25.4)		
3/8	Medium		20CF6MF-*	3.48 (88.4)	2.66 (66.0)	1.13 (28.7)		
9/16	Pressure Cone &	20,000 PSI	20CF9MF-*	4.76 (120.9)	3.50 (88.9)	1.38 (35.1)	See Figure 3	
3/4	Thread		20CF12MF-*	5.63 (143.00)	4.38 (111.25)	1.75	(50)	
1		2	20CF16MF-*	7.00	5.25 (133.35)	2.13		
1/4	High		60CF4HF-*	3.26 (82.8)	2.50 (63.5)	1.25 (31.8)		
3/8	Pressure Cone & Thread	I 60,000 PSI	60CF6HF-*	3.75 (95.25)	2.75 (69.9)	1.25	See Figure 4	
9/16				60CF9HF-*	4.63 (117.6)	3.38 (85.9)	1.50 (38.1)	(2)

*Insert desired micron filter Example: 20CF9MF-5 is a 9/16" MP Cup Filter with 5 micron filter

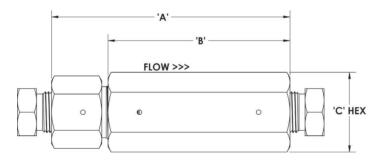


Figure 3

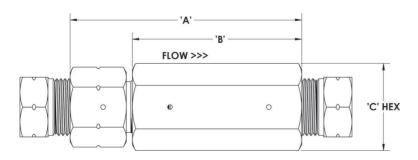


Figure 4

Specifications

 Cone & Threaded Fittings with MAWP up to 100,000 PSI (6895 bar).

Features

- Safety weep holes standard on all connections.
- Supplied with collars and glands when applicable.
- Can be manufactured to meet NACE MR-01-75.

Materials

- 316 cold worked stainless steel is standard.
- Other materials available by request.
- Contact us for additional 100,000 psi fitting information.





Connection Size in.	Connection Type	Pressure Rating	Collar	Gland	Сар	Plug
CONNECTI	ON COMPO	NENTS				
1/4			20CL4M	20GL4M	20CA4M	20PL4M
3/8	Medium		20CL6M	20GL6M	20CA6M	20PL6M
9/16	Pressure Cone &	20,000 PSI	20CL9M	20GL9M	20CA9M	20PL9M
3/4	Thread	:	20CL12M	20GL12M	20CA12M	20PL12M
1			20CL16M	20GL16M	20CA16M	20PL16M
1/4	High		60CL4H	60GL4H	60CA4H	60PL4H
3/8	Pressure Cone & Thread	60,000 PSI 60CL6H 60GL6H		60GL6H	60CA6H	60PL6H
9/16			60CL9H	60GL9H	60CA9H	60PL9H

End		Proceuro										
Connection Size in.	Connection Type	Pressure Rating	Part Number	А	В	С	D	E	F	Block Thickness	Fitting Dimension	
ELBOW											#G	
1/4			20L4MF	1.50 (38.1)	1.13 (28.7)	0.75	0.75 (19.1)	0.35 (8.9)	0.50 (12.7)	0.62 (15.7)		
3/8	Medium		20L6MF	2.00 (50.8)	1.38 (35.1)	1.00 (25.4)	1.00 (25.4)	0,47 (11.9)	0.62 (15.7)	0.75 (19.1)		
9/16	Pressure Cone &	20,000 PSI	20L9MF	2.50 (63.5)	1.75 (44.5)	1.25	1.25 (31.8)	0.66 (16.8)	0.88	1.00 (25.4)		
3/4	Thread		20L12MF	3.00 (76.2)	2.25 (57.2)	1.50 (38.1)	1.50 (38.1)	0.55 (14.0)	1.18 (30.0)	1.38 (35.1)	See	
11			20L16MF	4.12 (104.6)	3.00 (76.2)	2.06 (52.3)	2.06 (52.3)	0.69 (17.5)	1.38 (35.1)	1.75 (44.5)	Figure 1	
1/4	High		60L4HF	1.50 (38.1)	1.00 (25.4)	0.88	0.62 (15.7)	0.50 (12.7)	0.62 (15.7)	0.75 (19.1)		
3/8	/8 Pressure Cone &	60,000 PSI	60L6HF	2.00 (50.8)	1.50 (38.1)	1.25 (31.8)	1.00 (25.4)	0.60 (15.2)	0.81 (20.6)	1.00 (25.4)	5	
9/16			60L9HF	2.62 (66.5)	1.88 (47.8)	1.88 (47.8)	1.13 (28.7)	0.81 (20.6)	1.18 (30.0)	1.50 (38.1)		
TEE	101	0		0.00	100	000	W-00 - 010	200	V/100 - V/10		011	
1/4			20T4MF	1.50 (38.1)	1.13 (28.7)	0.75 (19.1)	0.75 (19.1)	0.35 (8.9)	0.50 (12.7)	0.62 (15.7)		
3/8	Medium		20T6MF	2.00 (50.8)	1.38 (35.1)	1.00 (25.4)	1.00 (25.4)	0.47	0.62 (15.7)	0.75 (19.1)		
9/16	Pressure Cone &	20,000 PSI	20T9MF	2.50 (63.5)	1.75 (44.5)	1.25 (31.8)	1.25 (31.8)	0.66 (16.8)	0.88 (22.4)	1.00 (25.4)		
3/4	Thread	5	20T12MF	3.00 (76.2)	2.25 (57.2)	1.50 (38.1)	1.50 (38.1)	0.55	1.18 (30.0)	1.38 (35.1)	See	
1			20T16MF	4.12 (104.6)	3.00 (76.2)	2.06 (52.3)	2.06 (52.3)	0.69 (17.5)	1.38 (35.1)	1.75 (44.5)	Figure 2	
1/4	High Pressure Cone & Thread		60T4HF	2.00 (50.8)	1.25	1.00 (25.4)	0.88	0.50	0.62	1.00 (25.4)		
3/8		High Pressure 6	60,000 PSI	60T6HF	2.00 (50.8)	1.56 (39.6)	1.00 (25.4)	1.06 (26.9)	0.60 (15.2)	0.81 (20.6)	1.00 (25.4)	
9/16			60T9HF	2.62	2.12 (53.8)	1.31 (33.3)	1.38 (35.1)	0.81 (20.6)	1.18	1.50 (38.1)		

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

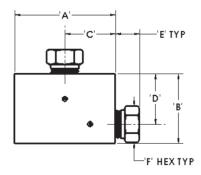


Figure 1

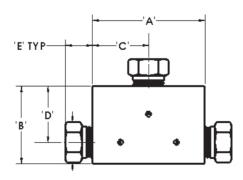
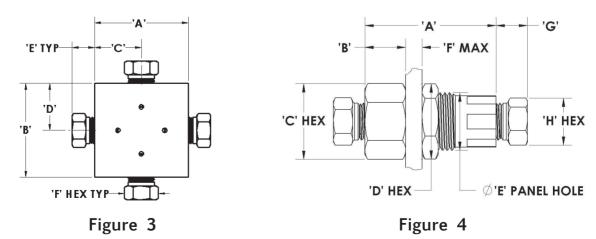


Figure 2

End Connection	Connection	Pressure				Din	nension,	in. (mm))		Fitting	
Size in.	Туре	Rating	Part Number	Α	В	С	D	E	F	G	Dimension	
ROSS												
1/4	0		20X4MF	1.50	1.50	0.75	0.75	0.35	0.50	0.62 (15.7)		
2004	K		LON-HIM	(38.1)	(38.1)	(19.1)	(19.1)	(8.9)	(12.7)	0.02 (15.7)		
3/8	0004 W		20X6MF	2.00	2.00	1.00	1.00	0.47	0.62	0.75 (19.1)		
	Medium			(50.8)	(50.8)	(25.4)	(25.4)	(11.9)	(15.7)	2 2		
9/16	Pressure	20,000 PSI	20X9MF	2.50	2.50	1.25	1.25	0.66	0.88	1.00 (25.4)		
	Cone &			(63.5)	(63.5)	(31.8)	(31.8)	(16.8)	(22.4)			
3/4	Thread		20X12MF	3.00	3.00	1.50	1.50	0.55	1.18	1.38 (35.1)	8	
		(-	(76.2) 4.12	(76.2) 4.12	(38.1)	(38.1)	(14.0)	(30.0)	O ar ar	See	
1			20X16MF	(104.6)	(104.6)	(52.3)	(52.3)	(17.5)	(35.1)	1.75 (44.5)	Figure :	
		N .					(32.3)			0		
1/4	635388		60X4HF	2.00	1.25	1.00	0.62	0.50	0.62	1.00 (25.4)		
	High			(50.8)	(38.1)	(25.4)	(15.7)	(12.7)	(15.7)	A B	5	
3/8	Pressure Cone & Thread	60,000 PSI	60X6HF	2.00	2.12	1.00	1.06	0.60	0.81	1.00 (25.4)		
)		(50.8)	(53.8)	(25.4)	(26.9)	(15.2)	(20.6)	-		
9/16		Inread	Inread		60X9HF	2.62	2.75	1.31	1.38	0.81	1.18	1.50 (38.1)
HENEAD			174-512717	(66.5)	(69.9)	(33.3)	(35.1)	(20.6)	(30.0)			
JLKHEAD	r								re	r-		
1/4			20BU4MF	2.00	0.53	1.00	1.00	0.88	0.38	0.38 (9.7)		
12170-1110c			TEMPAPONIA (SCA)	(50.8)	(13.5)	(25.4)	(25.4)	(22.4)	(9.7)	Choosed Attocata		
3/8	WWW.SMWALDOT		20BU6MF	2.00	0.62	0.94	0.94	0.94	0.38	0.44 (11.2)		
0.00100	Medium Pressure		Salara Salara	(50.8)	(15.7)	(23.9)	(23.9)	(23.9)	(9.7)		1	
9/16	Cone &	20,000 PSI	20BU9MF	(66.5)	0.78 (19.8)	1.25	1.25	1.25	0.38	0.53 (13.5)		
204	Thread			2.62	0.91	1.69	1.69	1.69	0.38	201 001		
3/4	medu		20BU12MF	(66.5)	(23.1)	(42.9)	(42.9)	(42.9)	(9.7)	0.62 (15.7)	Co-	
	1			3.50	1.50	2.00	2.00	2.00	0.38		See Figure	
1			20BU16MF	(88.9)	(38.1)	(50.8	(50.8	(50.8	(9.7)	0.72 (18.3)	rigure	
										i i	1	
1/4	Opposes		60BU4HF	2.00	0.50	1.00	1.00	0.94	0.38	0.50 (12.7)		
55/18/1	Pressure		POPER NOTAN	(50.8)	(12.7)	(25.4)	(25.4)	(23.9)	(9.7)	Construction of the control of the c	ł.	
3/8		60.0	60,000 PSI	60.000 PSLL 60BU6HF L	2.38	0.78	1.38	1.38	1.12	0.38	0.53 (13.5)	ž.
1969	4	Thread		(60.4)	1.00	(35.1)	(35.1)	(28.4) 1.69	(9.7) 0.38	D1 V)		
9/16	meau		60BU9HF 2.7	(69.9)	- 62887777	100000000000000000000000000000000000000	6246	1000 CO	10 Sept. 10	0.81 (20.6)		
				(09.9)	(25.4)	(47.8)	(47.8)	(42.9)	(9.7)			

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



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End Connection	Connection	Pressure	227 - 242 I T 147 C	Dimen	ion, in.	Fitting	
Size in.	Туре	Rating	Part Number	Α	В	Dimensions	
COUPLING							
1/4	Medium Pressure Cone &		20CU4MF	1.50 (38.1)	0.63 (16.0)		
3/8			20CU6MF	1.75 (44.5)	0.75 (19.1)		
9/16		20,000 PSI	20CU9MF	2.12 (53.9)	1.00 (25.4)		
3/4	Thread		20CU12MF	2.50 (63.5)	1.38 (35.1)	See	
ĭ			20CU16MF	3.50 (88.9)	1.75 (44.5)	Figure 5	
1/4	High Pressure Cone & Thread		60CU4HF	1.38 (35.1)	0.75		
3/8		60,000 PSI	60CU6HF	1.75 (44.5)	1.00 (25.4)		
9/16			60CU9HF	2.19 (55.6)	1.38 (35.1)		

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

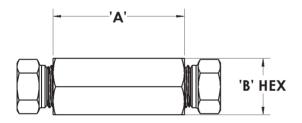


Figure 5

End Connection	Connection	Pressure	2 12 1 12 1	Din	Fitting		
Size in.	Туре	Rating	Part Number	Α	В	С	Dimensions
ANTI-VIBRATI	ON ASSEME	BLIES		-			
1/4			20AV4M	1.14 (29.0	0.62 (15.7)	0.62 (15.7)	
3/8	Medium Pressure Cone &		20AV6M	1.42 (36.1)	0.75 (19.1)	0.75 (19.1)	49-50-6
9/16		20,000 PSI	20AV9M	1.74 (44.2)	0.94 (23.9)	0.94 (23.9)	See Figure 6
3/4	Thread		20AV12M	1.97 (50.0)	1.38 (35.1)	1.38 (35.1)	, iguico
1			20AV16M	2.34 (59.4)	1.50 (38.1)	1.50 (38.1)	
1/4	High		60AV4H	0.81 (20.6)	0.62 (15.7)	8	
3/8	Pressure Cone & Thread	& 60,000 PSI	60AV6H	1.12 (28.4)	0.81 (20.6)	51	See Figure 7
9/16			60AV9H	1.50 (38.1)	1.18 (30.0)	8	i igure /

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

- \cdot For Moly-Coated parts add -MC to end of part number
- · Collars are not included in assembly and must be ordered separately

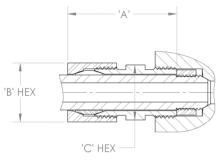


Figure 6

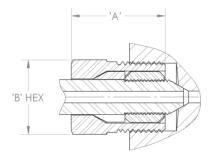


Figure 7



End Connection Size in.	Connection Type	Pressure Rating	Part Number
TUBE NIPPLES			
1/4			20N4M-*
3/8	Medium		20N6M-*
	Pressure		

1/4		9	ZUIVHIVI	
3/8	Medium		20N6M-*	
9/16	Pressure Cone &	20,000 PSI	20N9M-*	
3/4	Thread		20N12M-*	
1			20N16M-*	
1/4	High		60N4H-*	
3/8	Pressure Cone &	60,000 PSI	60N6H-*	
9/16	Thread		60N9H-*	

^{*} Insert desired tube nipple length in inches Example: 60N9H-6.00 is equal to 9/16" HP Tube Nipple, 6" Length

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AIR ACTUATORS

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.

Features

- Direct mount technology for reduced size and increased reliability.
- Aluminum housing for reduced weight.
- 360° user adjustable air supply inlet position
- Actuator to valve direct mount technology for simplified installation.

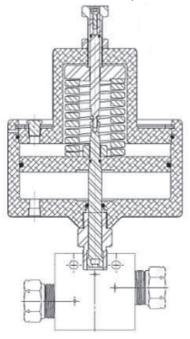
Options

- Electric Actuator.
- Electronic switch for remote open/close position indication.
- Stainless steel housing.
- Replaceable Seat available for improved valve life.

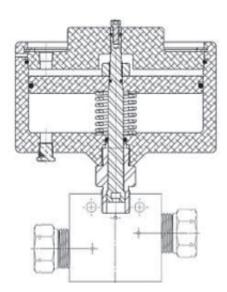
Ordering Information

- Normally Closed (Air-to-Open): -NC5.
- Normally Open (Air-to-Close): -NO5.
- Double Acting: -DA5.

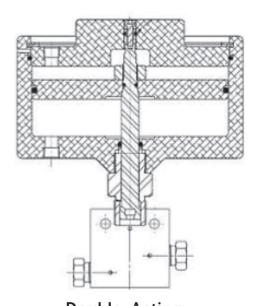
Example: 30NV6H1V becomes 30NV6H1V-NO5



Normally Closed (Air-to-Open)



Normally Open (Air-to-Close)



Double Acting



WWW.PRECISIONHIGHPRESSURE.COM

AIR ACTUATORS

Needle Val	ve	Norma	ally Closed Air-to	o-Open	Norm	ally Open Air-to	-Close		Double Acting	
Model Num	nber	NC5	NC6	NC8	NO5	NO6	NO8	DA5	DA6	DA8
			MAWP psi (bar)			MAWP psi (bar)			MAWP psi (bar)	
15NV4N	MAWP psi (bar)	15,000 (1034)			15,000 (1034)			15,000 (1034)		
	actuator pressure	80 (5.5)			80 (5.5)			70 (5.0)		
15NV6N	MAWP psi (bar)	14,000 (970)	15,000 (1034)		15,000 (1034)			15,000 (1034)		
	actuator pressure	100 (7.0)	85 (6.2)		100 (7.0)			100 (7.0)		
15NV8N	MAWP psi (bar)	14,000 (970)	15,000 (1034)		15,000 (1034)			15,000 (1034)		
	actuator pressure	110 (7.6)	85 (6.2)		110 (7.6)			110 (7.6)		
20NV4M	MAWP psi (bar)	20,000 (1380)	100 (7.0)		20,000 (1380)			20,000 (1380)		
	actuator pressure	100 (7.0)			90 (6.2)			80 (5.5)		
20NV6M	MAWP psi (bar)	20,000 (1380)			20,000 (1380)			20,000 (1380)		
	actuator pressure	100 (7.0)			90 (6.2)			80 (5.5)		
20NV9M	MAWP psi (bar)	14,000 (970)	20,000 (1380)		18,000 (1240)	20,000 (1380)		20,000 (1380)		
	actuator pressure	110 (7.6)	100 (7.0)		110 (7.6)	80 (5.5)		100 (7.0)		
20NV12M	MAWP psi (bar)			17,000 (1172)			20,000 (1380)			20,000 (1380)
	actuator pressure			90 (6.2)			100 (7.0)			80 (5.5)
20NV16M	MAWP psi (bar)			10,000 (690)			13,000 (896)			16000 (1103)
	actuator pressure			100 (7.0)			100 (7.0)			100 (7.0)
30NV4H	MAWP psi (bar)	30,000 (2068)			30,000 (2068)			30,000 (2068)		
	actuator pressure	90 (6.2)			80 (5.5)			70 (5.0)		
30NV6H	MAWP psi (bar)	30,000 (2068)			30,000 (2068)			30,000 (2068)		
	actuator pressure	90 (6.2)			80 (5.5)			70 (5.5)		
30NV9H	MAWP psi (bar)	30,000 (2068)			30,000 (2068)			30,000 (2068)		
	actuator pressure	90 (6.2)			80 (5.5)			70 (5.5)		
60NV4H	MAWP psi (bar)	60,000 (4137)			60,000 (4137)			60,000 (4137)		
	actuator pressure	110 (7.6)			110 (7.6)			90 (6.2)		
60NV6H	MAWP psi (bar)	60,000 (4137)			60,000 (4137)			60,000 (4137)		
	actuator pressure	110 (7.6)			110 (7.6)			90 (6.2)		
60NV9H	MAWP psi (bar)	60,000 (4137)			60,000 (4137)			60,000 (4137)		
	actuator pressure	110 (7.6)			110 (7.6)			90 (6.2)		

Specifications

- MAWP up to 20,000 PSI (1379 bar).
- Temperature Ratings: -15° F to 400° F (-26° C to 204° C).
- Port Sizes: $\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{3}{8}$ " or $\frac{1}{2}$ ".
- Flow Pattern: 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.
- Two standard mounting options.

Standard Materials

- Body/Side Adapter/Trunnion 316 cold worked stainless steel.
- Packing O-ring with PVX backup ring.
- ■Seats PVX.
- Seals Viton.
- Bearings PVX.

2-WAY TRUNNION

End Connection Size in.	End Connetion Type	Pressure Rating	Orifice in. (mm)	Part Number
-------------------------------	-----------------------	--------------------	---------------------	----------------

1/4" ORIFICE

1/4				15BV4T4NF
3/8	Female NPT	15,000 PSI		15BV4T6NF
1/2				15BV4T8NF
1/4				20BV4T4MF
3/8	Medium Pressure Cone & Thread	20 000 000	0.250 (6.35)	20BV4T6MF
9/16	Cone & Thread			20BV4T9MF
1/4		20,000 PSI		20BV4T4HF
3/8	High Pressure Cone and Thread			20BV4T6HF
9/16	Cone and Inread			20BV4T9HF

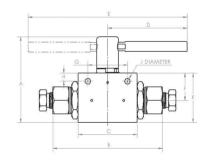


Figure 1

	Dimensions, in. (mm)										Valve
Α	В	С	D	Ε	F	G	н	j	K	Thickness	Dimensions
3.83	4.35	2.00	3.98		1.13	1.50	0.44	0.28	2.00	1.00	See
(97.3)	(110.5)	(50.8)	(101.1)	5.	(28.7	(38.1)	(11.2)	(7.1)	(50.8)	(25.4)	Figure 1

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



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

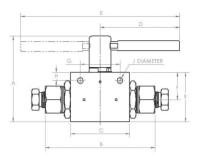


Figure 1

	Dimensions, in. (mm)									Valve	
Α	В	С	D	Е	F	G	Н	j	K	Thickness	Dimensions
4.34	5.54	3.00	4.02		1.38	2.00	0.41	0.28	2.50	1.38	See
(110.2)	(140.7)	(76.2)	(102.1)	*	(35.1)	(50.8)	(10.4)	(7.1)	(63.5)	(35.1)	Figure 1

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

End Connection Size in.	End Connetion Type	Pressure Rating	Orifice in. (mm)	Part Number
1/2" ORIFI	CE			116
1/2		15,000 PSI		15BV8T8NF
3/4	Female NPT	40 000 001		10BV8T12NF
1		10,000 PSI	0.500 (12.7)	10BV8T16NF
3/4	Medium Pressure	1F 000 DCI	(12.7)	15BV8T12MF
8	Cana P Throad	15,000 PSI	l	4 5 01 /0 74 54 45

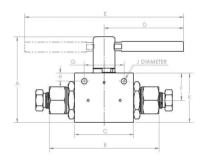


Figure 1

Dimensions, in. (mm)									Valve		
Α	В	С	D	E	F	G	Н	J	K	Thickness	Dimensions
5.57	7.69	4.13	5.13	10.26	1.76	3	0.50	0.28	3.09	1.75	See
(141.5)	(195.3)	(104.9)	(130.3)	(260.6)	(44.7)	(76.2)	(12.7)	(7.1)	(78.5)	(44.5)	Figure 1

15BV8T16MF

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

Cone & Thread

3-WAY TRUNNION

End Connection	End Connection	Pressure Rating	Orifice in. (mm)	Part N	lumber
Size in.	Туре	Nating	()	90° Diverting	180° Switching

3/16" ORIFICE

1/4				15BV3D4NF	15BV3S4NF
3/8	Female NPT	15,000 PSI		15BV3D6NF	15BV3S6NF
1/2				15BV3D8NF	15BV3S8NF
1/4			0.188 (4.78)	20BV3D4MF	20BV3S4MF
3/8	Medium Pressure Cone & Thread			20BV3D6MF	20BV3S6MF
9/16	Cone & Thread			20BV3D9MF	20BV3S9MF
1/4		20,000 PSI		20BV3D4HF	20BV3S4HF
3/8	High Pressure Cone and Thread			20BV3D6HF	20BV3S6HF
9/16	Colle and Thread			20BV3D9HF	20BV3S9HF

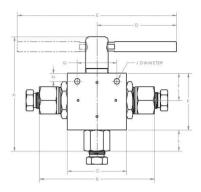


Figure 2

Dimensions, in. (mm)									Valve			
Α	В	С	D	E	F	G	Н	J	К	L	Block Thickness	Dimensions
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)	See Figure 2

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

End Connection	End Connection	Pressure	Orifice	Part N	lumber
Size in.	Type	Rating	in. (mm)	90° Diverting	180° Switching

3/8" ORIFICE

1/4				15BV6D4NF	15BV6S4NF
3/8	Female NPT			15BV6D6NF	15BV6S6NF
1/2		15 000 DCI	0.375	15BV6D8NF	15BV6S8NF
3/8		15,000 PSI	(9.53)	15BV6D6MF	15BV6S6MF
9/16	Medium Pressure Cone & Thread			15BV6D9MF	15BV6S9MF
3/4	cone & filleau			15BV6D12MF	15BV6S12MF

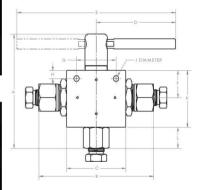


Figure 2

Dimensions, in. (mm)									Valve			
											Block	Dimensions
Α	В	С	D	Е	F	G	Н	J	K	L	Thickness	Difficitisions
5.78	5.80	3.00	4.02		1.38	2.00	0.41	0.28	2.88	1.06	1.38	See
(146.8)	(147.3)	(76.2)	(102.1)	-	(35.1)	(50.8)	(10.4)	(7.1)	(73.2)	(26.9)	(35.1)	Figure 2

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

End Connection	End Connection	Pressure Rating	Orifice in. (mm)	Part N	lumber
Size in.	Туре	Natilig	()	90° Diverting	180° Switching

1/2" ORIFICE

1/2				15BV8D8NF	15BV8S8NF
3/4	Female NPT		0.500	10BV8D12NF	10BV8S12NF
1		10,000 PSI	0.500 (12.7)	10BV8D16NF	10BV8S16NF
3/4	Medium Pressure		(12.7)	10BV8D12MF	10BV8S12MF
1	Cone & Thread			10BV8D16MF	10BV8S16MF

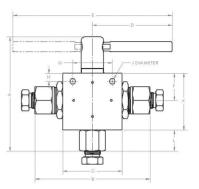


Figure 2

Dimensions, in. (mm)									Valve			
Α	В	c	D	Ε	F	G	I	J	К	Ü	Block Thickness	Dimensions
7.83 (198.9)	7.77 (197.4)	4.13 (104.9)	5.12	10.25 (260.35)	1.66 (42.2)	3.00 (76.2)	0.50 (12.7)	0.28	3.34 (84.8)	1.70 (43.2)	1.75 (44.5)	See Figure 2

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



ADJUSTABLE RELIEF VALVES

Precision High Pressure adjustable relief valves are designed to protect against over pressure of gas and liquids.

These proportional relief valves are designed to open gradually as the pressure increases. They do not have a capacity rating at given pressure increases, and therefore these relief valves are not certified to ASME code requirements.

Specifications

- Set Pressure from 1,000 PSI to 20,000 PSI (69 to 1379 bar).
- Temperature Ratings: -40°F to 300°F (-40°C to 150°C).
- Inlet Connection ¹/₄" FNPT (10RV) and ¹/₄" HPF (20RV) are standard. Other connections sizes and types are available by request.
- Outlet Connection 1/4" Female NPT.

Features

- Field Adjustable.
- Suitable for Gas or Liquid.

Materials

- Body 316SS stainless steel.
- Seat Gland/Outlet 316 stainless steel.
- Stem 17-4PH.
- Seal Materials PTFE packing/EPDM.
- Soft Seat Nylon.

Set Pressure	Orifice	Inlet Connection	Outlet	Part			Dime	nsion, in	. (mm)			Valve
Range	Size, in.		Connection	Number	А	В	С	D	E	F	G	Dimensions
1,000 to 10,000 PSI		1/4" FNPT	"	10RV4NF	5,22	1.56	1.06	1.50	0.56	1/4"	1.38	7266
1,000 (0.10,000) 31	0.070		1/4" FNPT		(132.6)	(39.6)	(26.9)	(38.1)	(14.2)	FNPT	(35.1)	See

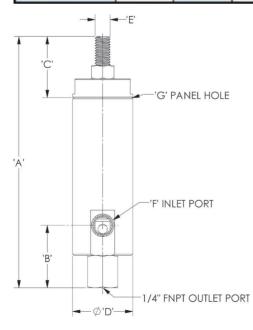


Figure 1



Specifications

- Size ranges from $\frac{1}{4}$ " OD to $\frac{1}{2}$ " OD.
- MAWP up to 100,000 PSI (6895 bar).

Features

- Stocked in USA for short delivery times.
- Tubing is also available for direct shipment from our European Mill.
 Contact us for more information.
- Tubing can be cut and shipped in shorter lengths when requested.

Materials

- 316SS/316L is standard material.
- 304L also available.
- Other materials available by request.

Pressure Rating	Connection Type	Tube Material	Part Number	Tube OD in. (mm)	Tube ID in. (mm)	Wall Thickness in. (mm)	Tolerance/Outside Diameter in. (mm)
15,000 PSI	Medium Pressure	316SS/316L	15TU16M	1 (25.4)	0.688 (17.5)	0.156 (3.9)	0.995/0.990 (25.27/25.14)
15,000 F31	Cone & Thread	31033/3101	15TU24M	1-1/2 (38.1)	0.937 (23.8)	0.281 (7.12)	1.495/1.490 (37.98/37.85)
			20TU4M	1/4 (6.4)	0.109 (2.8)	0.070 (1.78)	0.248/0.243 (6.30/6.17)
	Madium		20TU6M	3/8 (9.5)	0.203 (5.2)	0.086 (2.2)	0.370/0.365 (9.40/9.27)
20,000 PSI	Medium Pressure Cone & Thead	316SS/316L	20TU9M	9/16 (14.2)	0.312 (7.9)	0.125 (3.2)	0.557/0.552 (14.15/14.02)
			20TU12M	3/4 (19.1)	0.438 (11.1)	0.156 (3.9)	0.745/0.740 (18.92/18.80)
		5	20TU16M	1 (25.4)	0.562 (14.3)	0.219 (5.6)	0.995/0.990 (25.27/25.14)
		ii .	60TU4H	1/4 (6.4)	0.083 (2.1)	0.083 (2.1)	0.248/0.243 (6.30/6.17)
60,000 PSI	High Pressure Cone & Thread	316SS/316L	60TU6H	3/8 (9.5)	0.125 (3.2)	0.125 (3.2)	0.370/0.365 (9.40/9.27)
	7.1		60ТU9Н	9/16 (14.29)	0.188 (4.8)	0.187 (4.6)	0.557/0.552 (14.15/14.02)
100 000 500	High Pressure	21.000/2101	100ТU4Н	1/4 (6.4)	0.083 (2.1)	0.083 (2.1)	0.248/0.243 (6.30/6.17)
100,000 PSI	Cone & Thread	316SS/316L	100ТU6Н	3/8 (9.5)	0.125 (3.2)	0.125 (3.2)	0.370/0.365 (9.40/9.27)

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

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PRECISION HIGH PRESSSURE | 208-936-2063

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Specifications

- MAWP up to 20,000 PSI (1379 bar).
- Temperature Ratings: 0°F to 400°
- F $(-18^{\circ}\text{C to }204^{\circ}\text{C})$.

Connection Types

- NPT
- MP and HP Cone & Threaded.

Features & Benefits

 PHP Standard Needle and Ball Valve Internals.

Configurations

- ■Single Block and Bleed: Needle x Needle
- ■Double Block and Bleed: Ball x Needle x Ball.
- ■Double Block and Bleed: Needle x Needle x Needle.

Materials

- Body 316 stainless steel.
- Packing O-ring with PEEK backup ring.
- Seats PEEK.
- Stem 17-4 PH.
- Other materials available by request.

Contact us for ordering information



MANIFOLDS

Precision High Pressure manufactures custom designed manifolds to meet the unique needs of each individual customer. Manifolds reduce installation time, minimize potential leak ports, and reduce space requirements.

Specifications

- MAWP up to 60,000 PSI (4136 bar).
- Available in a wide range of connection sizes and types including NPT and Cone & Thread.
- Lengths up to 45" are available.
- Available in a wide variety of materials.

Features & Benefits

- Basic block for fluid distribution.
- Manifolds with needle valve assemblies for flow control.
- Both standard and quick open needle valves assemblies available.
- Replaceable seats available for ease of repair, minimizing long term costs.

Consult factory representative for additional details and availability.



Specifications

- MAWP up to 60,000 PSI (4140 bar).
- Connection size ranges from $\frac{1}{8}$ " to $\frac{1}{2}$ ".

Features

- Supplied complete with collars and glands when applicable.
- Material Traceability.
- Can be manufactured to NACE MR-01-75.

Materials

- 316 cold worked stainless steel is standard.
- Other materials available by request.

Available Connection Types

MM Medium Pressure Male.

HM High Pressure Male.

MF Medium Pressure Female.

HF High Pressure Female.

NF NPT Female.

NM NPT Male.

RM Type M Hose.

JM JIC Male.



Other connections types may be available by request.

MALE X MALE

JIC Male

		1/4"	3/8"	1/2"	3/4"	1"
	1/4"	20AD4JM	20AD4JM6JM	20AD4JM8JM	15AD4JM12JM	15AD4JM16JM
	3/8"		20AD6JM	20AD6JM8JM	15AD6JM12JM	15AD6JM16JM
5	1/2"			20AD8JM	15AD8JM12JM	15AD8JM12JM
	3/4"				15AD12JM	15AD12JM16JM
Г	1"					15AD16JM

NPT Male

		1/4"	3/8"	1/2"	3/4"	1"
a [1/4"	15AD4JM4NM	15AD4JM6NM	15AD4JM8NM	10AD4JM12NM	10AD4JM16NM
la l	3/8"	15AD6JM4NM	15AD6JM6NM	15AD6JM8NM	10AD6JM12NM	10AD6JM16NM
5	1/2"	15AD8JM4NM	15AD8JM6NM	15AD8JM8NM	10AD8JM12NM	10AD8JM16NM
7	3/4"	15AD12JM4NM	15AD12JM6NM	15AD12JM8M	10AD12JM12NM	10AD12JM16NM
Т	1"	15AD16JM4NM	15AD16JM6NM	15AD16JM8NM	10AD16JM10NM	10AD16JM16NM

Medium Pressure Male

		1/4"	3/8"	1/2"	3/4"	1"
<u>=</u>	1/4"	20AD4JM4MM	15AD4JM6MM	15AD4JM8MM	10AD4JM12MM	10AD4JM16MM
Mai	3/8"	15AD6JM4MM	15AD6JM6MM	15AD6JM8MM	10AD6JM12MM	10AD6JM16MM
ū	1/2"	15AD8JM4MM	15AD8JM6MM	15AD8JM8MM	10AD8JM12MM	10AD8JM16MM
7	3/4"	15AD12JM4MM	15AD12JM6MM	15AD12JM8M	10AD12JM12MM	10AD12JM16MM
	1"	15AD16JM4MM	15AD16JM6MM	15AD16JM8MM	10AD16JM10MM	10AD16JM16MM

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MALE X MALE

High Pressure Male

		1/4"	3/8"	9/16"
ا ه	1/4"	20AD4JM4HM	20AD4JM6HM	20AD4JM9HM
JIC Male	3/8"	20AD6JM4HM	20AD6JM6HM	20AD6JM9HM
5	1/2"	20AD8JM4HM	20AD8JM6HM	20AD8JM9HM
7	3/4"	15AD12JM4HM	15AD12JM6HM	15AD12JM9HM
ſ	1"	15AD16JM4HM	15AD16JM6HM	15AD16JM9HM

NPT Male

		1/4"	3/8"	1/2"	3/4"	1"
	1/4"	15AD4NM	15AD4NM6NM	15AD4NM8NM	10AD4NM12NM	10AD4NM16NM
Γ	3/8"		15AD6NM	15AD6NM8NM	10AD6NM12NM	10AD6NM16NM
Γ	1/2"			15AD8NM	10AD8NM12NM	10AD8NM16NM
Γ	3/4"				10AD12NM	10AD12NM16NM
Γ	1"					10AD16NM

Type M Hose

	9/16"-18	3/4"-16	1"-12	1-5/16"-12
1/4"	15AD4NM9RM	15AD4NM12RM	15AD4NM16RM	
3/8"	15AD6NM9RM	15AD6NM12RM	15AD6NM16RM	
1/2"	15AD8NM9RM	15AD8NM12RM	15AD8NM16RM	15AD8NM21RM
3/4"	10AD12NM9RM	10AD12NM12RM	10AD12NM16RM	10AD12NM21RM
1"	10AD16NM9RM	10AD16NM12RM	10AD16NM16RM	10AD16NM21RM

Meduim Pressure Male

		1/4"	3/8"	9/16"	3/4"	1"
o	1/4"	15AD4NM4MM	15AD4NM6MM	15AD4NM9MM	10AD4NM12MM	10AD4NM16MM
Ma	3/8"	15AD6NM4MM	15AD6NM6MM	15AD6NM9MM	10AD6NM12MM	10AD6NM16MM
ᆸ	1/2"	15AD8NM4MM	15AD8NM6MM	15AD8NM9MM	10AD8NM12MM	10AD8NM16MM
z	3/4"	10AD12NM4MM	10AD12NM6MM	10AD12NM9MM	10AD12NM12MM	10AD12NM16MM
П	1"	10AD16NM4MM	10AD16NM6MM	10AD16NM9MM	10AD16NM12MM	10AD16NM16MM

High Pressure Male

		1/4"	3/8"	1/2"
e e	1/4"	15AD4NM4HM	15AD4NM6HM	15AD4NM9HM
Male	3/8"	15AD6NM4HM	15AD6NM6HM	15AD6NM9HM
TAN	1/2"	15AD8NM4HM	15AD8NM6HM	15AD8NM9HM
z	3/4"	10AD12NM4HM	10AD12NM6HM	10AD12NM9HM
	1"	10AD16NM4HM	10AD16NM6HM	10AD16NM9HM

Type M Hose

2	9/16"-18	3/4"-16	1"-12	1-5/16"-12
9/16"-18	40AD9RM	30AD9RM12RM	26AD9RM16RM	
3/4"-16		30AD12RM	26AD12RM16RM	
1"-12			26AD16RM	20AD16RM21RM
1-5/16"-12				20AD21RM

MALE X MALE

Type M Hose

Medium Pressure Male

		A PERMINANTAL PROPERTY.		
	9/16"-18	3/4"-16	1"-12	1-5/16"-12
1/4"	20AD4MM9RM	20AD4MM12RM	20AD4MM16RM	20AD4MM21RM
3/8"	20AD6MM9RM	20AD6MM12RM	20AD6MM16RM	20AD6MM21RM
9/16"	20AD9MM9RM	20AD9MM12RM	20AD9MM16RM	20AD9MM21RM
3/4"	20AD12MM9RM	20AD12MM12RM	20AD12MM16RM	20AD12MM21RM
1"	20AD16MM9RM	20AD16MM12RM	20AD16MM16RM	20AD16MM21RM

High Pressure Male

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	1/4"	3/8"	9/16"
9/16"-18	40AD9RM4HM	40AD9RM6HM	40AD9RM9HM
3/4"-16	30AD12RM4HM	30AD12RM6HM	30AD12RM9HM
1"-12		26AD16RM6HM	26AD16RM9HM
1-5/16"-12			20AD21RM9HM

Medium Pressure Male

Medium Pressure Male

	1/4"	3/8"	9/16"	3/4"	1"
1/4"	20AD4MM	20AD4MM6MM	20AD4MM9MM	20AD4MM12MM	20AD4MM16MM
3/8"		20AD6MM	20AD6MM9MM	20AD6MM12MM	20AD6MM16MM
9/16"			20AD9MM	20AD9MM12MM	20AD9MM16MM
3/4"				20AD12MM	20AD12MM16MM
1"		j			20AD16MM

High Pressure Male

Medium

a)		1/4"	3/8"	9/16"
Vale	1/4"	20AD4MM4HM	20AD4MM6HM	20AD4MM9HM
9	3/8"	20AD6MM4HM	20AD6MM6HM	20AD6MM9HM
essure Male	9/16"	20AD9MM4HM	20AD9MM6HM	20AD9MM9HM
Pres	3/4"	20AD12MM4HM	20AD12MM6HM	20AD12MM9HM
-	1"	20AD16MM4HM	20AD16MM6HM	20AD16MM9HM

High Pressure Male

High Pressure Male

		1/4"	3/8"	9/16"
2	1/4"	60AD4HM	60AD4HM6HM	60AD4HM9HM
•	3/8"		60AD6HM	60AD6HM9HM
I	9/16"		Į.	60AD9HM

FEMALE X FEMALE

NPT Female

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	1/4"	3/8"	1/2"	3/4"	1"
1/4"		15AD4NF6NF	15AD4NF8NF	10AD4NF12NF	10AD4NF16NF
3/8"			15AD6NF8NF	10AD6NF12NF	10AD6NF16NF
1/2"				10AD8NF12NF	10AD8NF16NF
3/4"					10AD12NF16NF

Medium Pressure Female

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	1/4"	3/8"	9/16"	3/4"	1"
1/4"	15AD4NF4MF	15AD4NF6MF	15AD4NF9MF	15AD4NF12MF	15AD4NF16MF
3/8"	15AD6NF4MF	15AD6NF6MF	15AD6NF9MF	15AD6NF12MF	15AD6NF16MF
1/2"	15AD8NF4MF	15AD8NF6MF	15AD8NF9MF	15AD8NF12MF	15AD8NF16MF
3/4"	10AD12NF4MF	10AD12NF6MF	10AD12NF9MF	10AD12NF12MF	10AD12NF16MF
1"	10AD16NF4MF	10AD16NF6MF	10AD16NF9MF	10AD16NF12MF	10AD16NF16MF

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FEMALE X FEMALE

High Pressure Female

	1/4"	3/8"	9/16"
1/4"	15AD4NF4HF	15AD4NF6HF	15AD4NF9HF
3/8"	15AD6NF4HF	15AD6NF6HF	15AD6NF9HF
1/2"	15AD8NF4HF	15AD8NF6HF	15AD8NF9HF
3/4"	10AD12NF4HF	10AD12NF6HF	10AD12NF9HF
1"	10AD16NF4HF	10AD16NF6HF	10AD16NF9HF

Medium Pressure Female

Medium Pressure Female

	1/4"	3/8"	9/16"	3/4"	1"
1/4"		20AD4MF6MF	20AD4MF9MF	20AD4MF12MF	20AD4MF16MF
3/8"			20AD6MF9MF	20AD6MF12MF	20AD6MF16MF
9/16"			j	20AD9MF12MF	20AD9MF16MF
3/4"					20AD12MF16MF

High Pressure Female

Medium Pressure Female

	1/4"	3/8"	9/16"
1/4"	20AD4MF4HF	20AD4MF6HF	20AD4MF9HF
3/8"	20AD6MF4HF	20AD6MF6HF	20AD6MF9HF
9/16"	20AD9MF4HF	20AD9MF6HF	20AD9MF9HF
3/4"	20AD12MF4HF	20AD12MF6HF	20AD12MF9HF
1"	20AD16MF4HF	20AD16MF6HF	20AD16MF9HF

High Pressure Female

High Pressure Female

	1/4"	3/8"	9/16"
1/4"		60AD4HF6HF	60AD4HF9HF
3/8"			60AD6HF9HF

MALE X FEMALE

NPT Female

NPT Male

		1/4"	3/8"	1/2"	3/4"	1"
28	1/4"	15AD4NM4NF	15AD4NM6NF	15AD4NM8NF	15AD4NM12NF	15AD4NM16NF
I	3/8"	15AD6NM4NF	15AD6NM6NF	15AD6NM8NF	15AD6NM12NF	15AD6NM16NF
:[1/2"	15AD8NM4NF	15AD8NM6NF	15AD8NM8NF	15AD8NM12NF	15AD8NM16NF
	3/4"	10AD12NM4NF	10AD12NM6NF	10AD12NM8NF	10AD12NM12NF	10AD12NM16NF
	1"	10AD16NM4NF	10AD16NM6NF	10AD16NM8NF	10AD16NM12NF	10AD16NM16NF

Medium Pressure Male

NPT Male

		1/4"	3/8"	9/16"	3/4"	1"
20	1/4"	15AD4NM4MF	15AD4NM6MF	15AD4NM8MF	15AD4NM12MF	15AD4NM16MF
	3/8"	15AD6NM4MF	15AD6NM6MF	15AD6NM8MF	15AD6NM12MF	15AD6NM16MF
:[1/2"	15AD8NM4MF	15AD8NM6MF	15AD8NM8MF	15AD8NM12MF	15AD8NM16MF
	3/4"	10AD12NM4MF	10AD12NM6MF	10AD12NM8MF	10AD12NM12MF	10AD12NM16MF
	1"	10AD16NM4MF	10AD16NM6MF	10AD16NM8MF	10AD16NM12MF	10AD16NM16MF

MALE X FEMALE

High Pressure Female

		1/4"	3/8"	9/16"
a	1/4"	15AD4NM4HF	15AD4NM6HF	15AD4NM8HF
Male	3/8"	15AD6NM4HF	15AD6NM6HF	15AD6NM8HF
E	1/2"	15AD8NM4HF	15AD8NM6HF	15AD8NM8HF
NPT	3/4"	10AD12NM4HF	10AD12NM6HF	10AD12NM8HF
	1"	10AD16NM4HF	10AD16NM6HF	10AD16NM8HF

NPT Female

Medium Pressure Male

	1/4"	3/8"	1/2"	3/4"	1"
1/4"	15AD4MM4NF	15AD4MM6NF	15AD4MM8NF	15AD4MM12NF	15AD4MM16NF
3/8"	15AD6MM4NF	15AD6MM6NF	15AD6MM8NF	15AD6MM12NF	15AD6MM16NF
9/16"	15AD9MM4NF	15AD9MM6NF	15AD9MM8NF	15AD9MM12NF	15AD9MM16NF
3/4"	10AD12MM4NF	10AD12MM6NF	10AD12MM8NF	10AD12MM12NF	10AD12MM16NF
1"	10AD16MM4NF	10AD16MM6NF	10AD16MM8NF	10AD16MM12NF	10AD16MM16NF

NPT Female

High Pressure Male

	1/4"	3/8"	1/2"	3/4"	1"
1/4"	15AD4HM4NF	15AD4HM6NF	15AD4HM8NF	15AD4HM12NF	15AD4HM16NF
3/8"	15AD6HM4NF	15AD6HM6NF	15AD6HM8NF	15AD6HM12NF	15AD6HM16NF
9/16"	15AD9HM4NF	15AD9HM6NF	15AD9HM8NF	15AD9HM12NF	15AD9HM16NF

Medium Pressure Female

Medium Pressure Male

irediant ressare remaie					
	1/4"	3/8"	9/16"	3/4"	1"
1/4"	20AD4MM4MF	20AD4MM6MF	20AD4MM9MF	20AD4MM12MF	20AD4MM16MF
3/8"	20AD6MM4MF	20AD6MM6MF	20AD6MM9MF	20AD6MM12MF	20AD6MM16MF
9/16"	20AD9MM4MF	20AD9MM6MF	20AD9MM9MF	20AD9MM12MF	20AD9MM16MF
3/4"	20AD12MM4MF	20AD12MM6MF	20AD12MM9MF	20AD12MM12MF	20AD12MM16MF
1"	20AD16MM4MF	20AD16MM6MF	20AD16MM9MF	20AD16MM12MF	20AD16MM16MF

High Pressure Female

Medium Pressure Male

	1/4"	3/8"	9/16"
1/4"	20AD4MM4HF	20AD4MM6HF	20AD4MM9HF
3/8"	20AD6MM4HF	20AD6MM6HF	20AD6MM9HF
9/16"	20AD9MM4HF	20AD9MM6HF	20AD9MM9HF
3/4"	20AD12MM4HF	20AD12MM6HF	20AD12MM9HF
1"	20AD16MM4HF	20AD16MM6HF	20AD16MM9HF

Medium Pressure Female

High Pressure Male

		1/4"	3/8"	9/16"	3/4"	1"
e [1/4"	20AD4HM4MF	20AD4HM6MF	20AD4HM9MF	20AD4HM12MF	20AD4HM16MF
٤ [3/8"	20AD6HM4MF	20AD6HM6MF	20AD6HM9MF	20AD6HM12MF	20AD6HM16MF
	9/16"	20AD9HM4MF	20AD9HM6MF	20AD9HM9MF	20AD9HM12MF	20AD9HM16MF

High Pressure Female

High Pressure Male

	1/4"	3/8"	9/16"
1/4"	60AD4HM4HF	60AD4HM6HF	60AD4HM9HF
3/8"	60AD6HM4HF	60AD6HM6HF	60AD6HM9HF
9/16"	60AD9HM4HF	60AD9HM6HF	60AD9HM9HF



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