



Ultra High Pressure Valves, Fittings and Tubing Pressures to 152,000 psi (10,500 bar)

MAXIMATOR has been designing and manufacturing high pressure equipment for more than thirty years and has a worldwide reputation for quality and reliability, backed by one of the best service organizations in the industry.

Pipe Valves feature:

- ▶ Rising stem design.
- ▶ HP160 wetted parts with a 17-4 PH stem provides excellent corrosion resistance.
- ▶ Metal-to-metal seating achieves bubble-tight shut-off, longer stem and seat life, greater durability for repeated open and close cycles.
- ▶ PTFE and carbon packing with metal back-up rings offers reliable stem to body sealing.
- ▶ Non-rotating stem prevents stem to seat galling
- ▶ Stem sleeve and packing gland materials have been selected to achieve optimum thread cycle life and reduced handle torque. All stem sleeve threads are rolled, assuring smooth operation.
- ▶ Safety weep holes for all pressure connections and packing areas.
- ▶ Three different valve body patterns, with vee type stem tip.

MAXIMATOR offers a complete line of high pressure valves, fittings and tubing.

Note: When selecting multiple items, the pressure rating would be that of the lowest rated component.

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MAXIMATOR®

Ultra High Pressure Fittings

Pressures to 101,000 psi (7,000 bar)

MAXIMATOR high pressure fittings are designed to be used with the 36V and 65V series high pressure valves and high pressure tubing. All high pressure fittings have coned and threaded type connections. Mounting holes are standard on all elbows, tees, and crosses.

Tubing Size	Gland	Collar	Plug	Tubing Cap
1/4	101G4U	101C4U	101P4U	101TC4U
3/8	101G6U	101C6U	101P6U	101TC6U
9/16	101G9U	101C9U	101P9U	101TC9U



Connection Components

All high pressure fittings are supplied with glands and collars. Refer to the adjacent chart for ordering any of the connection components individually. When using the plug, the collar is not needed.

Fitting Pattern	Catalog Number	Connection Type	O.D. Tube Size in.	Orifice in. (mm)	Dimensions in. (mm)							Block Thickness
					A	B	C	D	E	F	G	

Elbow

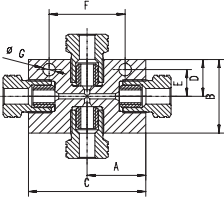
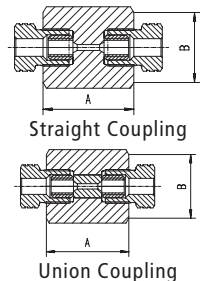
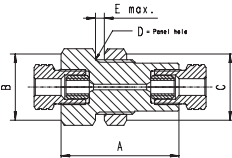
	101L4U	4UF	1/4	0.094 (2.3)	0.89 (22.6)	1.02 (25.9)	1.54 (39.1)	0.63 (16)	0.46 (11.7)	0.65 (16.5)	0.22 (5.6)	1.02 (25.9)
	101L6U	6UF	3/8	0.125 (3.2)	1.26 (32)	1.50 (38.1)	2.01 (51)	0.98 (24.9)	0.72 (18.3)	0.69 (18.3)	0.26 (6.6)	1.02 (25.9)
	101L9U	9UF	9/16	0.188 (4.8)	1.89 (48)	1.89 (48)	2.64 (67)	1.10 (28)	0.83 (21.1)	0.94 (23.9)	0.33 (8.4)	1.54 (39.1)

Tee

	101T4U	4UF	1/4	0.094 (2.3)	1.00 (25.4)	1.26 (32)	2.01 (51)	0.89 (22.6)	0.46 (11.7)	1.30 (33)	0.22 (5.6)	1.02 (25.9)
	101T6U	6UF	3/8	0.125 (3.2)	1.00 (25.4)	1.57 (39.9)	2.01 (51)	1.06 (26.9)	0.72 (18.3)	1.38 (35)	0.26 (6.6)	1.02 (25.9)
	101T9U	9UF	9/16	0.188 (4.8)	1.32 (33.5)	2.13 (54.1)	2.64 (67)	1.38 (35)	0.83 (21.1)	1.89 (48)	0.33 (8.4)	1.54 (39.1)

See page 2 in the Technical Section for pressure/temperature rating chart.
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Fitting Pattern	Catalog Number	Connection Type	O.D. Tube Size in.	Orifice in. (mm)	Dimensions in. (mm)							Block Thickness
					A	B	C	D	E	F	G	
Cross												
	101X4U	4UF	1/4	0.094 (2.3)	1.00 (25.4)	1.26 (32)	2.01 (51.1)	0.63 (16)	0.46 (11.7)	1.30 (33)	0.22 (5.6)	1.02 (25.9)
	101X6U	6UF	3/8	0.125 (3.2)	1.00 (25.4)	2.13 (54.1)	2.01 (51.1)	1.06 (27)	0.72 (18.3)	1.38 (35)	0.26 (6.6)	1.02 (25.9)
	101X9U	9UF	9/16	0.188 (4.8)	1.32 (33.5)	2.76 (70.1)	2.64 (67)	1.38 (35)	0.83 (21.1)	1.89 (48)	0.33 (8.4)	1.54 (39.1)
Straight Coupling / Union Coupling												
	101F4U	4UF	1/4	0.094 (2.3)	1.38 (35)	1.06 (27)	Straight Coupling					
	101UF4U						Union Coupling					
	101F6U	6UF	3/8	0.125 (3.2)	1.77 (45)	1.06 (27)	Straight Coupling					
	101UF6U						Union Coupling					
	101F9U	9UF	9/16	0.188 (4.8)	2.19 (55.6)	1.44 (36.6)	Straight Coupling					
	101UF9U						Union Coupling					
Bulkhead Coupling												
	101BF4U	4UF	1/4	0.094 (2.3)	1.89 (48)	1.06 (27)	1.06 (27)	0.94 (23.9)	0.16 (4)			
	101BF6U	6UF	3/8	0.125 (3.2)	2.38 (60.5)	1.44 (36.6)	1.44 (36.6)	1.12 (28.5)	0.35 (8.9)			
	101BF9U	9UF	9/16	0.188 (4.8)	2.76 (70.1)	1.63 (41.3)	1.63 (41.3)	1.43 (36.3)	0.67 (17)			

See page 2 in the Technical Section for pressure/temperature rating chart.
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MAXIMATOR®

Ultra High Pressure Tubing Pressures to 101,000 psi (7,000 bar)

MAXIMATOR offers a line of cold drawn thick wall tubing, with flow areas to compliment the ultra high pressure valves and fittings. This tubing is made under strict manufacturing and quality control standards and inspections, with dimensional tolerances to match the requirements of the ultra high pressure coned and threaded connections.

The standard material is HP160 stainless steels. Other materials may be provided on special request, depending on the specific material, diameters and lengths.



Tubing Tolerances

Normal Tubing Size in. (mm)	Tolerance O.D. in. (mm)
1/4 (6.35)	0.248 / 0.243 (6.299 / 6.172)
3/8 (9.53)	0.370 / 0.365 (9.398 / 9.271)
9/16 (14.29)	0.557 / 0.552 (14.148 / 14.021)

Catalog Number	Tube Material	Fits Connection Type	Tube Size in. (mm)		Working Pressure psi (bar)				
			O.D.	I.D.	-325 to 100°F (-198°C to 57°C)	200°F (93°C)	400°F (204°C)	600°F (315°C)	800°F (426°C)
101TU4U-HP160	HP160	4UF	1/4 (6.35)	0.06 (1.59)	101,000 (7,000)	82,600 (5,740)	72,600 (5,040)	66,500 (4,620)	61,500 (4,270)
101TU6U-HP160	HP160	6UF	3/8 (9.53)	0.125 (3.20)	101,000 (7,000)	82,600 (5,740)	72,600 (5,040)	66,500 (4,620)	61,500 (4,270)
101TU9U-HP160	HP160	9UF	9/16 (14.29)	0.188 (4.77)	101,000 (7,000)	82,600 (5,740)	72,600 (5,040)	66,500 (4,620)	61,500 (4,270)

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MAXIMATOR®

Coned and Threaded Nipples Pressures to 101,000 psi (7,000 bar)



MAXIMATOR offers a line of coned and threaded ultra high pressure tube nipples in a variety of lengths for all standard tube sizes.

The coned and threaded ultra high pressure tube nipples are available in 316 stainless steel. See chart below for ordering information.

Special length coned and threaded nipples are available upon request. Consult **MAXIMATOR** for availability and price.

Catalog Numbers are 316 Stainless Steel material							Fits Connection Type	Tube Size in. (mm)		Working Pressure at 100°F psi (mm)
2.75" (69.85) Length	3" (76.2) Length	4" (101.6) Length	6" (152.4) Length	8" (203.2) Length	10" (254) Length	12" (304.8) Length		O.D.	I.D.	
101N4U-2.75-HP160	101N4U-3-HP160	101N4U-4-HP160	101N4U-6-HP160	101N4U-8-HP160	101N4U-10-HP160	101N4U-12-HP160	4UF	1/4	0.06 (1.59)	101,000 (7,000)
	101N6U-3-HP160	101N6U-4-HP160	101N6U-6-HP160	101N6U-8-HP160	101N6U-10-HP160	101N6U-12-HP160	6UF	3/8	0.125 (3.20)	101,000 (7,000)
		101N9U-4-HP160	101N9U-6-HP160	101N9U-8-HP160	101N9U-10-HP160	101N9U-12-HP160	9UF	9/16	0.188 (4.77)	101,000 (7,000)

Standard nipples are not supplied with glands and collars, see Fittings on page 2 for these components.

See adjacent Tubing page 4, for pressure/temperature rating chart.

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MAXIMATOR®

Ultra High Pressure Valves

Pressures to 101,000 psi (7,000 bar)



Ordering Information

Typical catalog number: **101V5U071**

101V	5U	07	1
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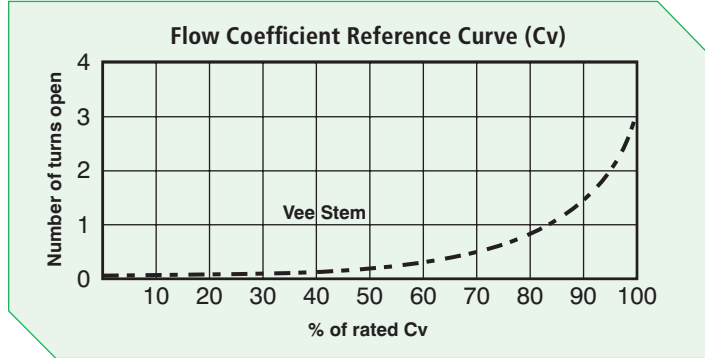
Valve Series	O.D. Tube Size	Stem Type	Body Pattern
101V	5U – 5/16"	07 – VEE stem	1 – two-way straight 2 – two-way angle 3 – three-way, two on pressure

O.D. Size in. (mm)	Connection Type	Orifice Size in. (mm)	Rated Cv*	Pressure/Temp. Rating psi (bar) @ R.T.**
5/16 (7.94)	5UF	0.062 (1.58)	0.09	101,000 (7,000)

* Cv values shown are for 2-way straight pattern vee stem valves.

For 2-way angle patterns, increase the Cv value by 50%

** See page 2 in the Technical Section for Pressure/Temperature Rating Chart.

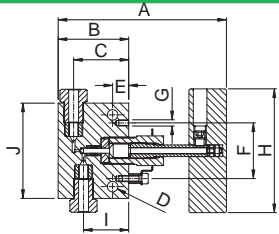


Temperature Ranges

Standard valves are supplied with Teflon/Carbon packing and may be operated to 450°F (230°C). Consult **MAXIMATOR** for higher temperature packing ratings.

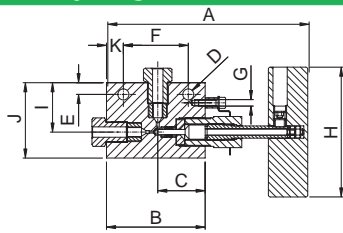
Valve Pattern	Catalog Number	Stem type	O.D. Tube in.	Orifice in. (mm)	Dimensions in. (mm)										Valve Panel Hole	Block Thickness
					A	B	C	D	E	F	H	I	J	K		

2-Way Straight



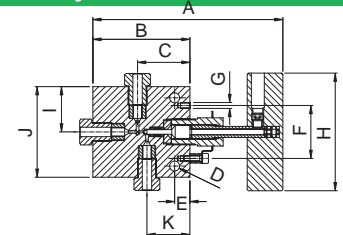
101V5U071	Vee	5/16	0.062 (1.6)	5.43 (138.3)	2.24 (57)	1.75 (44.5)	0.33 (8.4)	0.51 (13)	1.77 (45)	3.94 (100)	1.44 (36.6)	3.03 (77)	1.12 (28.5)	1.26 (32)
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2-Way Angle



101V5U072	Vee	5/16	0.062 (1.6)	6.18 (157)	2.99 (76)	1.44 (36.6)	0.33 (8.4)	0.51 (13)	1.97 (50)	3.94 (100)	1.50 (38.1)	2.28 (57.9)	0.51 (13)	1.12 (28.5)	1.26 (32)
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3-Way / 2 on Pressure



101V5U073	Vee	5/16	0.062 (1.6)	6.44 (163.6)	3.25 (82.6)	1.75 (44.5)	0.33 (8.4)	0.51 (13)	1.77 (45)	3.94 (100)	1.52 (38.6)	3.03 (77)	1.44 (36.6)	1.12 (28.5)	1.26 (32)
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G - Panel mounting screw size 10-24 UNC (screw included).

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MAXIMATOR®

Ultra High Pressure Fittings Pressures to 152,000 psi (10,500 bar)

MAXIMATOR ultra high pressure fittings are designed to be used with the 101V series ultra high pressure valves and ultra high pressure tubing. All ultra high pressure fittings have coned and threaded type connections and are supplied with glands and collars. Mounting holes are standard on all elbows, tees, and crosses.



Tubing Size	Gland	Collar	Plug	Tubing Cap
$5/16$	152G5U	152C5U	152P5U	152TC5U

Connection Components

All ultra high pressure fittings are supplied with glands and collars. Refer to the adjacent chart for ordering any of the connection components individually. When using the plug, the collar is not needed.

Fitting Pattern	Catalog Number	Connection Type	O.D. Tube Size in.	Orifice in. (mm)	Dimensions in. (mm)							Block Thickness
					A	B	C	D	E	F	G	
Elbow												
	152L5U	5UF	$5/16$	0.094 (2.3)	1.52 (38.6)	2.13 (54.1)	3.03 (77)	1.52 (38.6)	0.92 (23.4)	0.92 (23.4)	0.33 (8.4)	1.26 (32)
Tee												
	152T5U	5UF	$5/16$	0.094 (2.3)	1.52 (38.6)	2.13 (54.1)	3.03 (77)	1.52 (38.6)	0.92 (23.4)	1.83 (46.5)	0.33 (8.4)	1.26 (32)
Cross												
	152X5U	5UF	$5/16$	0.094 (2.3)	1.52 (38.6)	3.03 (77)	3.03 (77)	1.52 (38.6)	0.92 (23.4)	1.83 (46.5)	0.33 (8.4)	1.26 (32)
Straight Coupling / Union Coupling												
	152F5U	5UF	$5/16$	0.094 (2.3)	2.64 (67.1)	1.19 (30.2)	Straight Coupling					
	152UF5U						Union Coupling					
Bulkhead Coupling												
	152BF5U	5UF	$5/16$	0.094 (2.3)	3.27 (83)	2.00 (50.8)	1.42 (36.1)	1.46 (36)	0.87 (22.1)			

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MAXIMATOR®

Ultra High Pressure Tubing & Threaded Nipples

Pressures to 152,000 psi (10,500 bar)

MAXIMATOR offers a line of cold drawn thick wall tubing, with flow areas to compliment the ultra high pressure valve and fitting line. This tubing is made under strict manufacturing and quality control standards and inspections, with dimensional tolerances to match the requirements of the ultra high pressure coned and threaded connections. The standard material is 316 stainless steel.



Tubing Tolerances

Normal Tubing Size in. (mm)	Tolerance O.D. in. (mm)
$5/16$ (7.94)	0.310 / 0.306 (7.874 / 7.72)

Catalog Number	Tube Material	Fits Connection Type	Tube Size in. (mm)		Working Pressure psi (bar)				
			O.D.	I.D.	-325 to 100°F (-198°C to 37°C)	200°F (93°C)	400°F (204°C)	600°F (315°C)	800°F (426°C)
152TU5U-316	316SS	5UF	$5/16$ (7.94)	0.062 (1.58)	152,000 (10,500)	136,800 (9,500)	126,160 (8,700)	115,520 (8,000)	109,44 (7,600)
152TU5U-HP160	HP160	5UF	$5/16$ (7.94)	0.062 (1.58)	152,000 (10,500)	124,000 (8,600)	108,800 (7,560)	99,800 (6,930)	92,200 (6,400)

All dimensions are for reference only and subject to change.

Coned and Threaded Nipples

MAXIMATOR offers a line of coned and threaded ultra high pressure tube nipples in a variety of lengths.

The coned and threaded ultra high pressure tube nipples are available in 316 stainless steel. See chart below for ordering information.

Special length coned and threaded nipples are available upon request. Consult **MAXIMATOR** for availability and price.



Catalog Numbers are 316 Stainless Steel material					Fits Connection Type	Tube Size in. (mm)		Working Pressure at 100°F psi (bar)
4" (101.6) Length	6" (152.4) Length	8" (203.2) Length	10" (254) Length	12" (304.8) Length		O.D.	I.D.	
152N5U-4-316	152N5U-6-316	152N5U-8-316	152N5U-10-316	152N5U-12-316	5UF	$5/16$ (7.94)	0.062 (1.58)	152,000 (10,500)

Standard nipples are not supplied with glands and collars, see Fittings on page 3 for these components.

See the above chart for Pressure/Temperature Rating.

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