# **MAXIMATOR®**

# Maximum Pressure.



High Pressure Technology • Testing Equipment
Hydraulics • Pneumatics

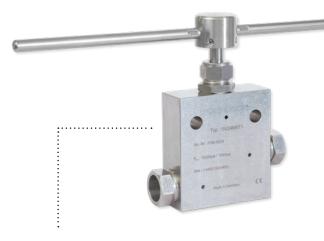




» Valves • Fittings • Tubings up to 1,050 bar

# Medium Pressure Valves

# » Pressures to 15,200 psi (1,050 bar)



### High pressure valves

Maximator high pressure valves with metal to metal seats have a high level of safety and reliability under adverse operating conditions. These valves may be used both with gases and liquids.

Traceability is ensured through extensively documented data (batch number, max. pressure, material number, type designation). All high pressure valves include glands and collars.

# Ordering Information Typical catalog number: 15V24M071

15 V Valve Series	24M O.D. Tube Size	07 Stem Type	1 Body Pattern
15 V	<b>24M</b> – 1 <sup>1</sup> / <sub>2</sub> "	07 – VEE stem	1 – two-way straight
			2 – two-way angle

Connection Type	Orifice Size in. (mm)	Rated Cv*	Pressure Rating @ R.T. psi (bar)**
			15,200 <b>(1,050)</b>

Consult your MAXIMATOR representative for **repair kits** and valve bodies. Refer to the Technical Information section for proper maintenance procedures.

- 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.

Valve Pattern	· · · · · · · · · · · · · · · · · · ·						Valve Panel	Block Thick-								
			in.	(mm)	A	В	C	D	E	F	Н	I	J	K	Hole	ness
2-Way Straight																
B	15V24M071	Vee	11/2			6.5 <b>(165)</b>	5.25 <b>(135)</b>	0.75 <b>(19)</b>	1.5 <b>(38.1)</b>	3.75 <b>(95.25)</b>	23.23 <b>(590)</b>	3.75 <b>(95.25)</b>	5.75 <b>(144.05)</b>		2.2 <b>(55.88)</b>	2.25 <b>(57.15)</b>
2-Way Angle																
	15V24M072	Vee	11/2	0.937 <b>(23.8)</b>		6.7 <b>(170)</b>	3.75 <b>(95.25)</b>	0.75 <b>(19)</b>	1.5 <b>(38.1)</b>	3.75 <b>(95.25)</b>	23.23 <b>(590)</b>		5.75 <b>(144.05)</b>		2.2 <b>(55.88)</b>	2.25 <b>(57.15)</b>

G - Panel mounting screw thread size 5/8-11 UNC. All dimensions are for reference only and are subject to change.

# Medium Pressure Fittings

# » Pressures to 15,200 psi (1,050 bar)

#### High pressure fittings

Maximator high pressure fittings are designed to be used with the 15V 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.





	Gland	Collar	Plug	Tubing Cap
Tubing Size				
1	15G24M	15C24M	15P24M	15TC24M

#### **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	Connection	O.D.	Orifice			Dimen	sions in. (r	nm)			Block
	Number	Туре	Tube Size in.	in. (mm)	A	В	С	D	E	F	G	Thick- ness
Elbow												
	15L24M	24MF	11/2	0.937 <b>(23.8)</b>	2.88 <b>(73.05)</b>	4.00 <b>(101.6)</b>	5.75 <b>(146.1)</b>	2.88 <b>(73.05)</b>	1.88 <b>(47.63)</b>	3.75 <b>(95.25)</b>	0.56 <b>(14.2)</b>	2.25 <b>(57.15)</b>
Tee												
	15T24M	24MF	11/2	0.937 <b>(23.8)</b>	2.88 <b>(73.05)</b>	4.00 <b>(101.6)</b>	5.75 <b>(146.1)</b>	2.88 <b>(73.05)</b>	1.88 <b>(47.63)</b>	3.75 <b>(95.25)</b>	0.56 <b>(14.2)</b>	2.25 <b>(57.15)</b>
Cross												
	15X24 <b>M</b>	24MF	11/2	0.937 <b>(23.8)</b>	2.88 <b>(73.05)</b>	5.75 <b>(146.1)</b>	5.75 <b>(146.1)</b>	2.88 <b>(73.05)</b>	1.88 <b>(47.63)</b>	3.75 <b>(95.25)</b>	0.56 <b>(14.2)</b>	2.25 <b>(57.15)</b>
Straight Coupling / Union (	Coupling											
Straight Coupling	15F24M	24MF	<b>1</b> <sup>1</sup> / <sub>2</sub>	0.937	5.0	2.25			Straigh	t Coupling		
Union Coupling	15UF24M	24IVIF	1.72	(23.8)	(127)	(57.15)			Union Coupling			
Bulkhead Coupling												
E max.  — D panel hole	15BF24M	24MF	11/2	0.937 <b>(23.8)</b>	5.0 <b>(127)</b>	2.5 <b>(63.5)</b>	2.5 <b>(63.5)</b>	2.4 <b>(61)</b>	0.75 <b>(19.05)</b>			

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

All dimensions are for reference only and are subject to change.

All technical and dimensional information subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

# Anti-Vibration and Safety Head Assembly

» Pressures to 15,200 psi (1,050 bar)

### Anti-vibration collet gland assemblies

Maximator anti-vibration collet gland assemblies are for use in applications where there could be extreme external mechanical vibrations or shock in tubing lines. These collet gland assemblies are interchangeable with the standard high pressure coned and threaded tube connections.

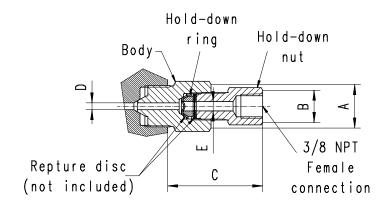


Gland Pattern	Catalog Number	Part	art 0.D. Tubing Size in.		Dimensions in. (mm)				
				A	B (Hex.)	C (Hex.)			
B → B →	15AVA24M	Complete Assembly			2.25				
	15AVB24M	Collet Body	1 <sup>1</sup> / <sub>2</sub>	1.25		1.88			
<b>▼</b>	15AVC24M	Slotted Collet	1 /2	(96)	(57.15)	(47.63)			
c	15AVG24M	Gland Nut							

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### Safety head assemblies

Maximator safety head assemblies are used to provide over-pressure protection to high pressure systems. These safety head assemblies are to be used with the appropriate 1/4" angular and flat rupture disc.



Safety Head Assembly	Fits Connection	Pressure Rating	Body Torque	Dimensions in. (mm)							
Catalog Number	Туре	psi (bar)	ft - Ibs.	Α	В	C	D	E			
without Disc			(Nm)	(Hex.)	(Hex.)	(LG.)	(I.D.)	(I.D.)			
15SH24M	24MF	15,200 <b>(1,050)</b>	200 <b>(275)</b>	1.88 <b>(47.63)</b>	0.88 <b>(22.4)</b>	2.66 <b>(67.7)</b>	0.307 <b>(7.8)</b>	0.250 <b>(6.3)</b>			

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# **Check Valves**

# » Pressures to 15,200 psi (1,050 bar)

#### **O-Ring Check Valves**

Maximator O-Ring Check Valves provide high quality directional flow control and tight shut-off for liquids and gases. All Check Valves are supplied with glands and collars. These Check Valves are not to be used as a relief device. The opening pressure of the O-Ring Check Valves is approx. 20 psi (1.5 bar).

#### » Materials:

Body: 318 stainless steel

Cover, poppet, cover gland: 316L stainless steel

Spring: 300 series stainless steel

O-Ring: FKM "A" [-4°F to 392°F(-20°C to 200°C)]

#### **Ball Check Valves**

Maximator Ball Check Valves prevent reverse flow where bubble tight shut-off is not mandatory. These Check Valves are designed with a ball cradled floating poppet to assure positive inline seating. This poppet design allows full flow around the ball to minimize pressure drop. Check Valves are rated to 660°F (350°C). All Check Valves are supplied with glands and collars. These Check Valves are not to be used as a relief device. The opening pressure of the Ball Check Valves is approx. 20 psi (1.5 bar).

#### » Materials:

Body: 318 stainless steel

Cover, poppet, cover gland: 316L series stainless steel

Ball and Spring: 300 series stainless steel



Valve Pattern	Catalog Number	Connection Pressure Type Rating		Orifice Rated (Cv) in. (mm)		Dimensions in. (mm)		
O-Ring Check Valves			psi (bar)			A (Hex.)	В	
В	150C24M	24MF	15,200 <b>(1,050)</b>	0.937 <b>(23.8)</b>	14.0	2.25 <b>(57.15)</b>	9.0 <b>(228.5)</b>	
Ball Check Valves								
B	15BC24M	24MF	15,200 <b>(1,050)</b>	0.937 <b>(23.8)</b>	14.0	2.25 <b>(57.15)</b>	9.0 <b>(228.5)</b>	

CAUTION: FREQUENT INSPECTIONS of O-Rings are necessary to ensure proper service of the check valve. O-Rings have shown satisfactory service life in testing, however different service conditions may lead to variations in cycle and shelf life. All dimensions are for reference only and subject to change.

# **Tubing and Coned and Threaded Nipples**

» Pressures to 15,200 psi (1,050 bar)

#### **High Pressure Tubing**

Maximator offers a line of cold drawn thick wall tubing, with flow areas to compliment the 15,200 psi high pressure valves and fittings series. This tubing is made under strict manufacturing and quality control standards and inspections, with dimensional tolerances to match the requirements of the high pressure coned and threaded connections.

#### **Tubing Tolerances**

Normal Tubing Size	Tolerance O.D
in. (mm)	in. (mm)
1 <sup>1</sup> / <sub>2</sub> (38.1)	1.495 / 1.490 <b>(37.98 / 37.85)</b>



Catalog Number	Tube Material	Fits Connection Type	Tube Size	in. (mm)	-325°F to 100°F (-198°C to 37°C)	200°F	essure psi (bar) 400°F (204°C)	600°F (315°C)	800°F (426°C)		
15TU24M-316	316SS	24MF	1 <sup>1</sup> / <sub>2</sub> (38.1)	0.937 <b>(23.8)</b>	15,200 <b>(1,050)</b>	13,680 <b>(940)</b>	12,616 <b>(870)</b>	11,552 <b>(790)</b>	10,944 <b>(750)</b>		

All dimensions for reference only and are subject of change.

### Coned and threaded nipples

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

The coned and threaded 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 Length in. (mm) Con-					e Size mm)	Working Pressure
8" (203.2)	10" (254)	12" (304.8)	14" (355.6)	nection Type	0.D.	I.D.	at 100°F psi (bar)
15N24M-8-316	15N24M-10-316	15N24M-12-316	15N24M-14-316	24MF	1 <sup>1</sup> / <sub>2</sub> (38.1)	0.937 <b>(23.8)</b>	15,200 <b>(1,050)</b>

Standard nipples are not supplied with glands and collars, see Fittings on page 6 for these components. See adjacent Tubing information, for pressure/temperature rating chart.

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#### At your side, everywhere

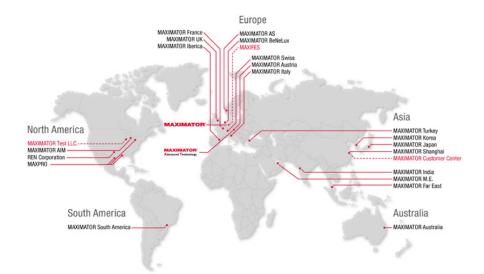
As a technology leader in the field of high pressure and testing equipment up to 25,000 bar, hydraulics and pneumatics, MAXIMATOR GmbH, which is located in Nordhausen, has been a successful global player for more than 50 years. With our products and innovative system solutions, we are a longstanding partner to reputed companies in the automotive and supply industry, and in the chemical, energy, oil and gas industries.

With our international partner companies, experienced specialists in high pressure technology are always available to assist you. We have compiled detailed contact information for our international partners which you can find on our website:

www.maximator.de/worldwide+distribution

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