

Medium Pressure Valves, Fittings and Tubing Pressures to 22,500 psi

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.

Medium Pressure Valves feature:

- ▶ Rising stem design.
- ▶ 316SS 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 area.
- ▶ Six different valve body patterns, with choice of vee or regulating type stem tip.

MAXPRO offers a complete line of medium pressure fittings, tubing, check valves, line filters, anti-vibration fittings and safety head assemblies. All medium pressure valves and fittings use the medium pressure style connection. This coned and threaded connection features orifice sizes to match the high flow characteristics of the medium pressure valve, fitting and tubing line.

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

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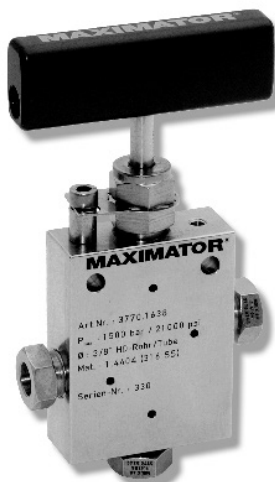
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MT R10 June 2021

MAXPRO®
TECHNOLOGIES

Printed in the USA

Medium Pressure Valves

Pressures to 22,500 psi



Ordering Information

Typical catalog number: **21V4M071**

21V	4M	07	1	OPTIONS
Valve Series	O.D. Tube Size	Stem Type	Body Pattern	Extreme temperature option, see below.
21V	4M - 1/4"	07 - VEE stem	1 - two-way straight	
	6M - 3/8"	08 - REGULATING stem (tapered tip for regulating and shutoff)	2 - two-way angle	
	9M - 9/16"		3 - three-way, two on pressure	
	12M - 3/4"		4 - three-way, one on pressure	
15V	16M - 1"	87 - VEE stem with replaceable seat	5 - three-way, two-stem manifold	
	24M-1-1/2"	88 - REGULATING stem with replaceable seat		

Special Designs for Extreme Temperatures

Standard valves are supplied with Teflon/Carbon packing and may be operated to 450°F. High temperature packing and/or extended stuffing box are available for service from -423°F to 1200°F by adding the following suffixes to catalog order number.

- **TG** standard valve with teflon glass packing to 600°F.
- **GY** standard valve with graphite braided yarn packing to 800°F.
- **HT** extended stuffing box valve with graphite braided yarn packing to 1200°F.
- **B** standard valve with cryogenic trim materials and Teflon packing to -100°F.
- **LT** extended stuffing box valve with teflon packing and cryogenic trim materials to -423°F.

Repair Kits

Consult your **MAXPRO** representative for repair kits and valve bodies. Refer to the Tools and Installation section for proper maintenance procedures.

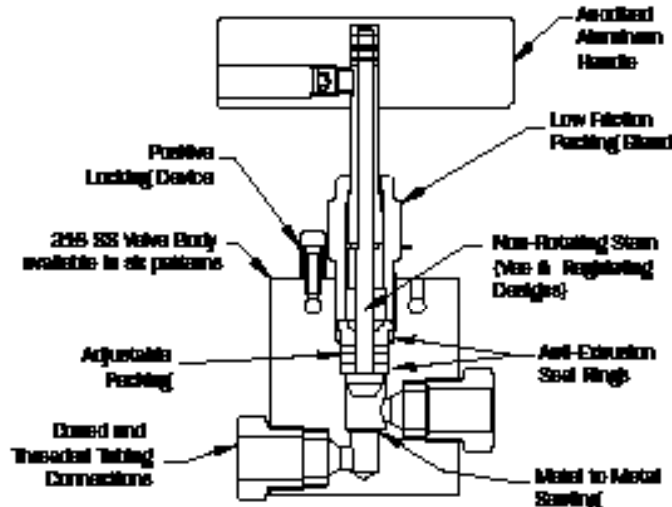
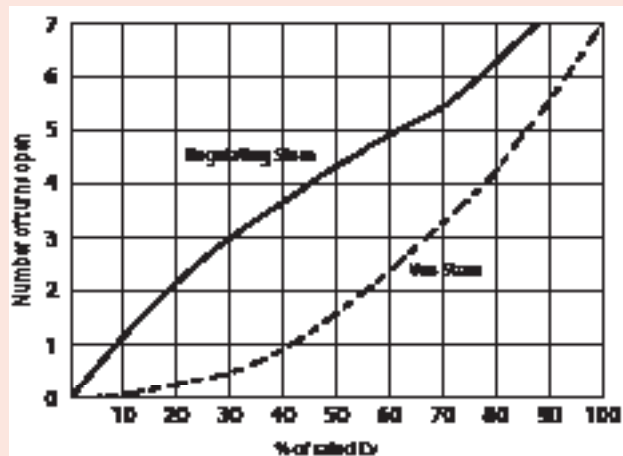
MAXIMATOR medium pressure valves with metal to metal seats have a high level of safety and reliability under adverse operating conditions. These valves may be used both with gases and liquids.

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

O.D. Size (in.)	Connection Type	Orifice Size (in.)	Rated Cv*	Pressure/Temp. Rating (PSI@ R.T.)**
1/4	4MF	0.106	0.31	22,500
3/8	6MF	0.201	0.75	22,500
9/16	9MF	0.307	1.30	22,500
3/4	12MF	0.438	2.50	22,500
1	16MF	0.562	4.40	22,500
1-1/2	24MF	0.937	14	15,200

* 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.

Flow Coefficient Reference Curves (Cv)



Valve Shown: 21V9M071

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

2-Way Straight

	21V4M071	Vee	1/4	0.106	4.61	2.01	1.62	0.22	0.37	1.24	2.95	1.19	2.01		0.75	0.79
	21V4M081	Reg			4.61	2.01	1.62	0.22	0.37	1.24	2.95	1.19	2.01		0.75	0.79
	21V6M071	Vee	3/8	0.201	4.61	2.01	1.62	0.22	0.37	1.24	2.95	1.19	2.01		0.75	0.79
	21V6M081	Reg			4.61	2.01	1.62	0.22	0.37	1.24	2.95	1.19	2.01		0.75	0.79
	21V9M071	Vee	9/16	0.307	6.35	2.88	2.38	0.37	0.45	1.38	3.94	1.75	2.50		1.00	1.02
	21V9M081	Reg			6.35	2.88	2.38	0.37	0.45	1.38	3.94	1.75	2.50		1.00	1.02
	21V12M071	Vee	3/4	0.438	7.05	3.74	3.00	0.43	0.63	1.76	10.31	2.25	3.00		1.25	1.38
	21V12M081	Reg			7.05	3.74	3.00	0.43	0.63	1.76	10.31	2.25	3.00		1.25	1.38
	21V16M071	Vee	1	0.562	8.98	4.65	3.75	0.53	1.13	2.50	10.31	2.81	4.13		1.62	1.77
	21V16M081	Reg			8.98	4.65	3.75	0.53	1.13	2.50	10.31	2.81	4.13		1.62	1.77
	15V24M071	Vee	1.5	0.937	10.8	6.5	5.25	0.75	1.5	3.75	23.23	3.75	5.75		2.2	2.25

2-Way Angle

	21V4M072	Vee	1/4	0.106	5.00	2.43	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V4M082	Reg			5.00	2.43	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V6M072	Vee	3/8	0.201	5.00	2.43	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V6M082	Reg			5.00	2.43	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V9M072	Vee	9/16	0.307	6.85	3.38	1.75	0.37	0.45	1.38	3.94	1.25	2.50		1.00	1.02
	21V9M082	Reg			6.85	3.38	1.75	0.37	0.45	1.38	3.94	1.25	2.50		1.00	1.02
	21V12M072	Vee	3/4	0.438	7.56	4.25	2.25	0.43	0.63	1.76	10.31	1.50	3.00		1.25	1.38
	21V12M082	Reg			7.56	4.25	2.25	0.43	0.63	1.76	10.31	1.50	3.00		1.25	1.38
	21V16M072	Vee	1	0.562	9.45	5.12	2.81	0.53	1.13	2.50	10.31	2.07	4.13		1.62	1.77
	21V16M082	Reg			9.45	5.12	2.81	0.53	1.13	2.50	10.31	2.07	4.13		1.62	1.77
	15V24M072	Vee	1.5	0.937	11	6.7	3.75	0.75	1.5	3.75	23.23	2.87	5.75		2.2	2.25

3-Way / 2 on Pressure

	21V4M073	Vee	1/4	0.106	5.20	2.62	1.62	0.22	0.37	1.24	2.95	1.00	2.01	1.19	0.75	0.79
	21V4M083	Reg			5.20	2.62	1.62	0.22	0.37	1.24	2.95	1.00	2.01	1.19	0.75	0.79
	21V6M073	Vee	3/8	0.201	5.20	2.62	1.62	0.22	0.37	1.24	2.95	1.00	2.01	1.19	0.75	0.79
	21V6M083	Reg			5.20	2.62	1.62	0.22	0.37	1.24	2.95	1.00	2.01	1.19	0.75	0.79
	21V9M073	Vee	9/16	0.307	7.09	3.62	2.38	0.37	0.45	1.38	3.94	1.25	2.50	1.75	1.00	1.02
	21V9M083	Reg			7.09	3.62	2.38	0.37	0.45	1.38	3.94	1.25	2.50	1.75	1.00	1.02
	21V12M073	Vee	3/4	0.438	7.97	4.63	3.00	0.43	0.63	1.76	10.31	1.50	3.00	2.25	1.25	1.38
	21V12M083	Reg			7.97	4.63	3.00	0.43	0.63	1.76	10.31	1.50	3.00	2.25	1.25	1.38
	21V16M073	Vee	1	0.562	10.20	5.87	3.75	0.53	1.13	2.50	10.31	2.07	4.13	2.81	1.62	1.77
	21V16M083	Reg			10.20	5.87	3.75	0.53	1.13	2.50	10.31	2.07	4.13	2.81	1.62	1.77