Needle Valves

Mini Valves

MVE/MV Series

Pressures to 15,000 psi (1034 bar)



Since 1945 Parker Autoclave Engineers has designed and built premium quality valves, fittings and tubing. This commitment to engineering and manufacturing excellence has earned Parker Autoclave a reputation for reliable efficient product performance.
Parker Autoclave Engineers has long been established as the world leader in high pressure fluid handling components for the chemical/petrochemical, research, and oil and gas industries.

Mini Valve Features:

- Mini valve provides a rugged compact design.
- Tubing sizes available are 1/16” and 1/8”.
- Rising stem/barstock body design.
- Metal-to-metal seating achieves bubble-tight shut-off, longer stem/seat life in abrasive flow, greater durability for repeated on/off cycles and excellent corrosion resistance.
- PTFE encapsulated packing provides dependable stem and body sealing.
- Stem and packing gland design have been selected to achieve extended thread cycle life and reduced handle torque.
- Vee stem tip provided.
- Available in five body patterns.
- Mini valves available with metric tube glands.

Parker Autoclave Engineers valves are complemented by a complete line of mini fittings and tubing. The MVE/MV Series uses Parker Autoclave Engineers' SpeedBite connection. This single-ferrule compression sleeve connection delivers fast, easy make-up and reliable bubble-tight performance in liquid or gas service.

Parker

Autoclave Engineers®

www.autoclave.com

Needle Valves - MVE/MV Series

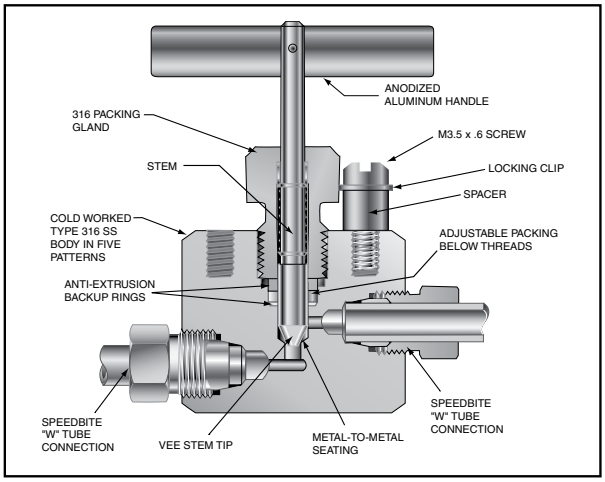
Pressures to 15,000 psi (1034 bar)

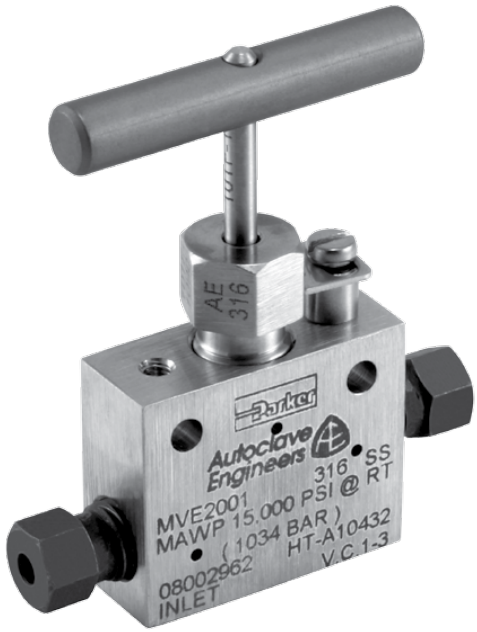
Tube Outside Diameter Size Inches	Connection Type	Orifice Size Inches (mm)	Rated C_V*	Pressure Rating psi (bar) @ Room Temperature**
1/16	W062	0.055 (1.40)	0.05	15,000 (1034)
1/8	W125	0.078 (1.98)	0.11	15,000 (1034)

Notes:

** C_V values shown are for 2-way straight valve pattern. For 2-way angle patterns, increase C_V value 50%. (Based on water)*

*** For complete temperature ratings see pressure/temperature rating guide in Technical Information section.*





To ensure proper fit use Parker Autoclave tubing

Ordering Procedure

For complete information on valve options, contact your Sales Representative. MVE Series valves are furnished complete with connection components, unless otherwise specified.

Typical catalog number: **MVE2001**

MVE — **2** — **00** — **1** — — **XX**

MVE — **Valve Series**

- **MVE** - 3/8 Hex tubing glands
- **MV** - 10mm Hex tubing glands

2 — **Outside Diameter Tube Size**

- **1**-1/16"
- **2**-1/8"

00 — **Stem Type**

- **00** - rotating Vee stem (on-off service)
- **01** - rotating Regulating stem (tapered tip for regulating and shut-off)

1 — **Body Pattern**

- **1** - two-way straight
- **2** - two-way angle
- **3** - three-way, two on pressure
- **4** - three way, one on pressure
- **5** - three-way, two stem manifold valve

XX — **Options**

See valve options for ratings.

All general terms and conditions of sale, including limitations of our liability, apply to all products and services sold.

Valve Options

Extreme Temperatures
Standard Parker Autoclave Engineers valves with PTFE packing may be operated to 450°F (232°C). High temperature packing is available for service from 0°F (-17.8°C) to 600°F (316°C) by adding the following suffixes to catalog order number.†
TG standard valve with PTFE glass packing to 600°F (316°C).

†*Parker Autoclave Engineers does not recommend compression sleeve connections below 0°F (-17.8°C) or above 650°F (343°C). For additional valve options, contact your Sales Representative.*

Valve Maintenance

Refer to the Tools, Installation, Operation and Maintenance section for proper maintenance procedures.

2-Way Straight

Catalog Number	Stem Type	Outside Diameter Tube	Orifice Diameter	Dimensions - inches (mm) A	B	C	D	D_1	E	F	G	G_1	H*	M	N	Block Thickness	Valve Pattern
MVE1001	VEE	1/16	0.055	1.38	0.69	0.45	0.81	0.56	1.13	1.75	0.56	0.16	2.38	0.45	0.20	0.56	See Figure 1
MV1001	VEE	(1.57)	(1.40)	(34.93)	(17.45)	(11.43)	(20.65)	(14.30)	(28.58)	(44.45)	(14.27)	(4.04)	(60.38)	(11.49)	(5.16)	(14.27)	
MVE2001	VEE	1/8	0.078	1.38	0.69	0.45	0.81	0.56	1.13	1.75	0.56	0.16	2.38	0.45	0.20	0.56	
MV2001	VEE	(3.18)	(1.98)	(34.93)	(17.45)	(11.43)	(20.65)	(14.30)	(28.58)	(44.45)	(14.27)	(4.04)	(60.38)	(11.49)	(5.16)	(14.27)	

2-Way Angle

MVE1002	VEE	1/16	0.055	1.38	0.69	0.45	0.56		1.38	1.75	0.56	0.16	2.63	0.45	0.20	0.56	See Figure 2
MV1002	VEE	(1.57)	(1.40)	(34.93)	(17.45)	(11.43)	(14.30)		(34.93)	(44.45)	(14.27)	(4.04)	(66.75)	(11.49)	(5.16)	(14.27)	
MVE2002	VEE	1/8	0.078	1.38	0.69	0.45	0.56		1.38	1.75	0.56	0.16	2.38	0.45	0.20	0.56	
MV2002	VEE	(3.18)	(1.98)	(34.93)	(17.45)	(11.43)	(14.30)		(34.93)	(44.45)	(14.27)	(4.04)	(60.38)	(11.49)	(5.16)	(14.27)	

3-Way / 2 on Pressure

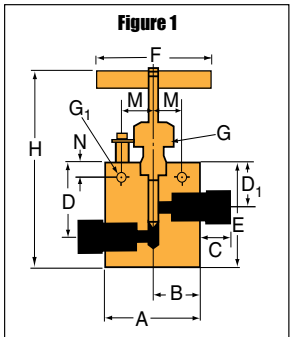
MVE1003	VEE	1/16	0.055	1.38	0.69	0.45	0.81	0.56	1.44	1.75	0.56	0.16	2.69	0.45	0.20	0.56	See Figure 3
MV1003	VEE	(1.57)	(1.40)	(34.93)	(17.45)	(11.43)	(20.65)	(14.30)	(36.50)	(44.45)	(14.27)	(4.04)	(68.30)	(11.49)	(5.16)	(14.27)	
MVE2003	VEE	1/8	0.078	1.38	0.69	0.45	0.81	0.56	1.44	1.75	0.56	0.16	2.69	0.45	0.20	0.56	
MV2003	VEE	(3.18)	(1.98)	(34.93)	(17.45)	(11.43)	(20.65)	(14.30)	(36.50)	(44.45)	(14.27)	(4.04)	(68.30)	(11.49)	(5.16)	(14.27)	

G - Packing gland mounting hole drill size
G_1 - Bracket mounting hole size
Panel mounting screws are M3.5 x .7 thd.
Tube glands are 3/8" hex on standard MVE models
Tube glands are 10mm hex on MV models.

** H Dimension is with stem in closed position.*
All dimensions for reference only and subject to change.

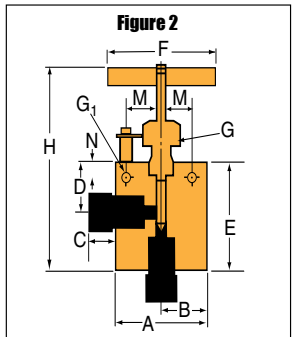
For prompt service, Parker Autoclave Engineers stocks select products. Consult factory.

Figure 1



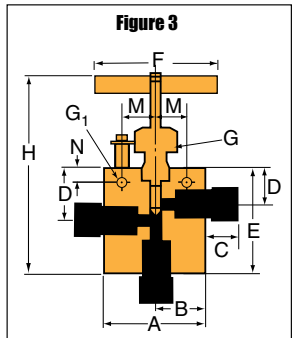
2-Way Straight

Figure 2



2-Way Angle

Figure 3



3-Way / 2 on Pressure

All general terms and conditions of sale, including limitations of our liability, apply to all products and services sold.

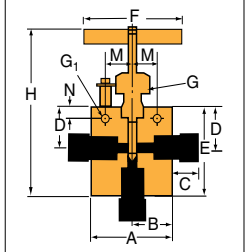
Catalog Number	Stem Type	Outside Diameter Tube	Orifice Diameter	Dimensions - inches (mm)												Block Thick-ness	Valve Pattern
				A	B	C	D	D_1	E	F	G	G_1	H*	M	N		
3-Way / 1 on Pressure																	
MVE1004	VEE	1/16	0.055	1.38	0.69	0.45	0.56	0.56	1.44	1.75	0.56	0.16	2.69	0.45	0.20	0.56	See Figure 4
MV1004	VEE	(1.57)	(1.40)	(34.93)	(17.45)	(11.43)	(14.22)	(14.30)	(36.50)	(44.45)	(14.27)	(4.04)	(68.30)	(11.49)	(5.16)	(14.27)	
MVE2004	VEE	1/8	0.078	1.38	0.69	0.45	0.56	0.56	1.44	1.75	0.56	0.16	2.69	0.45	0.20	0.56	
MV2004	VEE	(3.18)	(1.98)	(34.93)	(17.45)	(11.43)	(14.22)	(14.30)	(36.50)	(44.45)	(14.27)	(4.04)	(68.30)	(11.49)	(5.16)	(14.27)	
3-Way / 2-Stem Manifold																	
MVE1005	VEE	1/16	0.055	1.38	0.69	0.45	0.81	0.56	1.63	1.75	0.56	0.16	4.11	0.45	0.20	0.56	See Figure 5
MV1005	VEE	(1.57)	(1.40)	(34.93)	(17.45)	(11.43)	(20.65)	(14.30)	(41.28)	(44.45)	(14.27)	(4.04)	(104.44)	(11.49)	(5.16)	(14.27)	
MVE2005	VEE	1/8	0.078	1.38	0.69	0.45	0.81	0.56	1.63	1.75	0.56	0.16	4.11	0.45	0.20	0.56	
MV2005	VEE	(3.18)	(1.98)	(34.93)	(17.45)	(11.43)	(20.65)	(14.30)	(41.28)	(44.45)	(14.27)	(4.04)	(104.44)	(11.49)	(5.16)	(14.27)	

G - Packing gland mounting hole drill size
G_1 - Bracket mounting hole size
Panel mounting screws are M3.5 x .7 thd.
Tube glands are 3/8 hex on standard MVE models
Tube glands are 10mm hex on MV models

** H Dimension is with stem in closed position.*
All dimensions for reference only and subject to change.

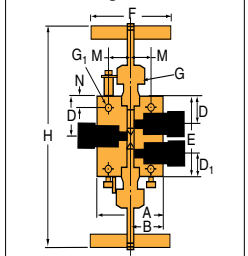
For prompt service, Parker Autoclave stocks select products. Consult factory.

Figure 4



3-Way / 1 on Pressure

Figure 5



3-Way / 2-Stem Manifold

WARNING

FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

Offer of Sale

The items described in this document are available for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. Any sale contract entered by Parker will be governed by the provisions stated in Parker's standard terms and conditions of sale (copy available upon request).

© 2013 Parker Hannifin Corporation | Autoclave Engineers is a registered trademark of the Parker Hannifin Corporation

02-0114SE January2013

Instrumentation Products Division
Autoclave Engineers Operation
8325 Hessinger Drive
Erie, Pennsylvania 16509-4679 USA
PH: 814-860-5700 FAX: 814-860-5811
www.autoclave.com

Parker Hannifin Manufacturing Ltd.
Instrumentation Products Division, Europe
Industrial Estate Whitemill
Wexford, Republic of Ireland
PH: 353 53 914 1566
FAX: 353 53 914 1582

Caution! Do not mix or interchange parts or tubing with those of other manufacturers. Doing so is unsafe and will void warranty.

Caution! Parker Autoclave Engineers Valves, Fittings and Tools are not designed to work with common commercial instrument tubing and will only work with tubing built to Parker Autoclave Engineers AES Specifications. Failure to do so will void warranty.

ISO-9001 Certified