

# Needle Valves - 100VM & 150V Series

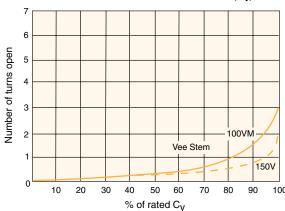
# Pressures to 150.000 psi (10350 bar)

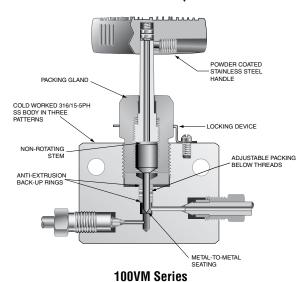
Tube Outside Diameter Size Inches	Connection Type	Orifice Size Inches (mm)	Rated C <sub>v</sub> *	Pressure Rating psi (bar) @ Room Temperature**
Series 100VM 1/4, 5/16, 3/8	F312C150	0.062 (1.57)	.09	100,000 (6895)
Series 150V 5/16	F312C150	0.062 (1.57)	.06	150,000 (10342)

#### Notes:

- \*  $C_V$  values shown are for 2-way straight valve pattern. For 2-way angle patterns, increase  $C_V$  value 50%.
- \*\* For complete temperature ratings see pressure/temperature rating guide in Technical Information section.

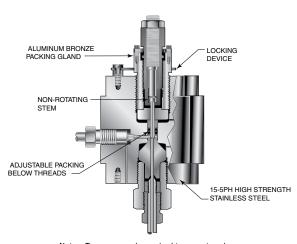
#### Generalized Flow Coefficient Curves (C<sub>V</sub>)











Notes: Torque wrench required to operate valves.

150V Series

To ensure proper fit use Autoclave tubing

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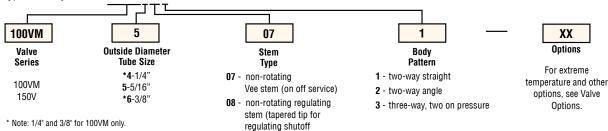
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## Ordering Procedure

For complete information on available stem types, optional connections and additional valve options, see Needle Valve Options section or contact your Sales Representative. The 100V Series valves are furnished complete with connection components, unless otherwise specified.

Typical catalog number: 100VM5071



### **Valve Options**

#### **Extreme Temperatures**

Standard Parker Autoclave Engineers valves with PTFE packing may be operated to 450°F (232°C), and to 230°F (110°C) with nylon-leather packing.

K - anti-vibration collet and gland assembly.

For other packing options consult the factory.

### **Valve Maintenance**

Repair Kits: add "R" to the front of valve catalog

number for proper repair kit. (Example: **R100VM15071**)

Valve Bodies: Valve bodies are available. Order using the eight (8)

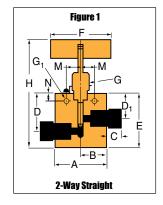
digit part number found in the valve drawing or contact your Sales Representative for information.

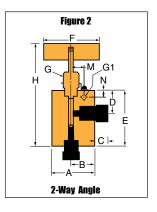
Consult your Parker Autoclave Engineers representative for pricing on repair kits and valve bodies. Refer to the Tools, Installation, Operation and Maintenance section for proper maintenance procedures.

Catalog	Stem	Outside	Orifice			Block Thick-	Valve										
Number	Туре	Diameter Tube	Diameter	A	В	C	D	D <sub>1</sub>	Е	F	G	G <sub>1</sub>	Н*	M	N	ness	Pattern
2-Way	Nay Straight																
100VM4071	VEE	1/4" (6.35)	0.062	3.00	1.50	0.52	1.75	1.44	2.25	4.00	1.12	0.34	5.32	1.12	0.50	1.38	See
100VM5071 100VM6071	VEE	5/16" (7.93) 3/8" (9.53)	(1.57)	(76.20)	(38.10)	(13.21)	(44.45)	(36.58)	(57.15)	(101.60)	(28.45)	(8.64)	(135.13)	(28.45)	(12.70)	(35.05)	Figure 1
2-Way	Way Angle																
100VM4072	VEE	1/4" (6.35)	0.062	2.25	1.50	0.52	1.44		3.00	4.00	1.12	0.34	6.05	0.94	0.50	1.38	See
100VM5072 100VM6072		5/16" (7.93) 3/8" (9.53)	(1.57)	(57.15)	(38.10)	(13.21)	(36.58)		(76.20)	(101.60)	(28.45)	(8.64)	(153.67)	(23.88)	(12.70)	(35.05)	Figure 2

G - Packing gland mounting hole drill size G<sub>1</sub> - Bracket mounting hole size Panel mounting drill size: 0.22" all valves.

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





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<sup>\*</sup> H Dimension is with stem in closed position. All dimensions for reference only and subject to change.



Catalog Stem Diameter Orifice		Orifice					Dime	ensions	- inches	(mm)					Block Thick-	Valve
Number Type		Diameter	A	В	С	D	D <sub>1</sub>	E	F	G	G <sub>1</sub>	Н*	M	N	ness	Pattern
3-Way / 2 (	on Press	ure														
100VM4073 100VM5073 VEE	1/4" (6.35)		3.00	1.50	0.52	1.75	1.44	3.25	4.00	1.12	0.34	6.31	1.12	0.50	1.38	See
100VM6073	3/8" \9.53	(1.57)	(76.20)	(38.10)	(13.21)	(44.45)	(36.58)	(82.55)	(101.60)	(28.45)	(8.64)	(160.27)	(28.45)	(12.70)	(35.05)	Figure 3

### 2-Way Angle/Replaceable Seat

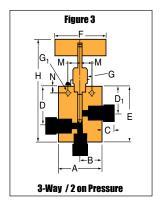
100VM4872   1/4" (6.35 100VM5872   VEE   5/16" (7.93	) I n n62	2.25	1.50	0.52	1.44	3.00	4.00	1.12	0.34	7.57	0.94	0.50	1.38	See
100VM5872   VEE   5/16 (7.93 100VM6872   3/8" (9.53		(57.15)	(38.10)	(13.21)	(36.58)	(76.20)	(101.60)	(28.45)	(8.64)	(192.30)	(23.88)	(12.70)	(35.05)	Figure 4

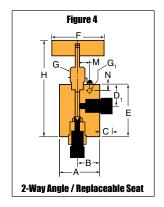
#### 2-Way Angle / Replaceable Seat

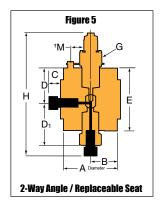
1	50V5072	VEE	5/16	0.062	3.75	1.88	.052	2.25	2.63	4.00	1.650	7.12	1.25 <sup>†</sup>		See
			(7.93)	(1.57)	(95.25)	(47.63)	(13.21)	(57.15)	(66.80)	(101.60)	(41.91)	(180.85)	(31.75)		Figure 5

G - Packing gland mounting hole drill size G<sub>1</sub> - Bracket mounting hole size Panel mounting drill size: 0.22" all valves. See mounting note below for 150V series.

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 $^{t}$  (2) 1/4"-20 mounting holes 180° apart and (1) locking device screw 90° apart

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