MicroMetering Valve Features:

- Barrel and Thimble design permits repeatable settings.
- Barrel divisions every 0.025”
- 25 Thimble divisions, each representing 0.001” stem travel
- One revolution = 0.025” stem travel
- Cold-worked type 316 stainless steel body with stainless steel packing gland. Stem and seat are cold-worked type 316 stainless steel.
- Packing below stem threads is PTFE for the 10VRMM and 30VRMM valves and nylon-leather for the 60VRMM. For packing options, see Technical Information Section.
- SpeedBite “W” connections are used on the 10VRMM and Parker AE High Pressure coned-and-threaded connections on 30VRMM and 60VRMM.

Parker Autoclave Engineers valves are complemented by a complete line of fittings, tubing, check valves and line filters.
Needle Valves - MicroMetering

Pressures to 60,000 psi (4137 bar)

<table>
<thead>
<tr>
<th>Tube Outside Diameter Size Inches</th>
<th>Connection Type</th>
<th>Orifice Size Inches (mm)</th>
<th>Rated Cv</th>
<th>Pressure Rating psi (bar) @ Room Temperature**</th>
</tr>
</thead>
<tbody>
<tr>
<td>10VRMM 1/8</td>
<td>W125</td>
<td>0.062 (1.57)</td>
<td>0.004</td>
<td>15,000 (1034)</td>
</tr>
<tr>
<td>30VRMM 1/4</td>
<td>F250C</td>
<td>0.062 (1.57)</td>
<td>0.004</td>
<td>30,000 (2069)</td>
</tr>
<tr>
<td>60VRMM 1/4</td>
<td>F250C</td>
<td>0.062 (1.57)</td>
<td>0.004</td>
<td>60,000 (4137)</td>
</tr>
<tr>
<td>60VRMM 3/8</td>
<td>F375C</td>
<td>0.062 (1.57)</td>
<td>0.004</td>
<td>60,000 (4137)</td>
</tr>
</tbody>
</table>

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

Flow Coefficient (Cv)

To ensure proper fit use Parker Autoclave Engineers tubing

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. VRMM Series valves are furnished complete with connection components, unless otherwise specified.

Typical catalog number: 60VRMM4812

Valve Series: 60VRMM

Outside Diameter Tube Size: 2-1/8”

Stem/Seat Type: 81 - Rotating regulating one piece stem with replaceable seat.

Body Pattern: 2 - two-way angle

Options: XX

For extreme temperature and other options, see Valve Options.

Note:
Ordering procedure for information only. Models available are shown in tables on next page.

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**Valve Options**

**Extreme Temperatures**
Standard Parker Autoclave Engineers valves with PTFE packing may be operated to 450°F (232°C). High temperature packing and/or extended stuffing box is available for service from -423°F (-252°C) to 1200°F (649°C) by adding the following suffixes to catalog order number:

- **TG** - standard valve with PTFE glass packing to 600°F (316°C). See note below.
- **GY** - standard valve with graphite braided yarn packing to 800°F (427°C).
- **HT** - extended stuffing box valve with graphite braided yarn packing to 1200°F (649°C).
- **B** - standard valve with cryogenic trim material and PTFE packing to -100°F (-73°C).
- **LT** - extended stuffing box valve with cryogenic trim material and PTFE packing & Cryogenic trim materials to -423°F (-252°C).

**Note:** 60VRMM valves supplied with Peak/PTFE Glass/Pekk.

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.

*See Needle Valve options for stem and seat coatings for erosive service.*

**Valve Maintenance**

**Repair Kits:** add "R" to the front of valve catalog number for proper repair kit.
(Example: R60VRMM)

**Valve Bodies:** Valve bodies are available. Order using the eight (8) digit part number found on 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.

See Needle Valve options for stem and seat coatings for erosive service.

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Outside Diameter Tube</th>
<th>Orifice Diameter</th>
<th>Dimensions - inches (mm)</th>
<th>Block Thickness</th>
<th>Valve Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>10VRMM2812</td>
<td>1/8 0.062</td>
<td>1.50 0.88 0.31</td>
<td>1.56 3.00 0.62 0.16</td>
<td>5.06 1.00 0.25</td>
<td>(79.24)</td>
</tr>
<tr>
<td></td>
<td>(3.17) (1.57) (22.35)</td>
<td>(7.87) (39.62)</td>
<td>(76.20) (4.06) (12.75)</td>
<td>(25.40) (6.35)</td>
<td>(19.05)</td>
</tr>
</tbody>
</table>

*Note: M dimension is distance between holes for mounting bracket.*

| 30VRMM44812    | 1/4 0.062             | 2.00 1.00 0.50   | 1.12 2.00 3.00 0.97     | 2.22 5.06 0.69 | (25.40)     |
|                | (6.35) (1.57) (50.80) | (50.80) (76.20)  | (24.63) (5.58) (12.75) | (25.40)       |
| 60VRMM44812    | 1/4 0.062             | 2.00 1.00 0.50   | 1.12 2.00 3.00 0.97     | 2.22 6.06 0.69 | (25.40)     |
|                | (6.35) (1.57) (50.80) | (50.80) (76.20)  | (24.63) (5.58) (15.39) | (25.40)       |
| 60VRMM6812     | 3/8 0.062             | 2.00 1.00 0.53   | 1.12 2.00 3.00 0.97     | 2.22 6.06 0.69 | (25.40)     |
|                | (9.53) (1.57) (50.80) | (50.80) (76.20)  | (24.63) (5.58) (15.39) | (25.40)       |

*G - Packing gland mounting hole drill size*  
*G1 - Bracket mounting hole size*  
*Panel mounting drill size: 0.22" all valves.*

*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.

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See Figure 1

See Figure 2

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**Figure 1**

**Figure 2**

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WARNING

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