Principle of Operation:

Parker Autoclave Engineers Manifold Valves are available in compact Single and Double Block & Bleed manifold designs using Cone & Thread style and NPT connections. Designed for a maximum of 30,000 psi MAWP using high tensile strength UNS S31600/S31603 cold worked 316/316L Stainless Steel material as standard.

MVBB Single Block & Bleed Manifold Valve Features:

- MVBB Series valve design provides large valve performance in a small package
- Tubing sizes: 1/4" and 3/8" Pipe Size: 1/2" NPT
- Single Block & Bleed design

DBNV Double Block & Bleed Manifold Valve Features:

- Connection specific Non-Rotating Vee Stems matching material selection, (Rotating Stem Vent valve)
- Tubing Sizes from 1/4" to 3/4" Medium Pressure and 9/16" High Pressure (API Type III Connection)
- -423° to 1000°F (-252° to 540°C) Temperature Range

GV Series Wellhead Gauge Valve Features:

- One Inlet, 3 Outlet ports, standard using 9/16" HP (API Type III connection), other sizes available
- 30,000 psi MAWP capable, 20,000 psi MAWP NACE capable
- Use with BV Series Bleed Valve (below) in any outlet port to create Block and Bleed valve

BV Series Bleed/Vent Valve Features:

- 3/8" and 9/16" connections to match GV Series Gauge Valves above (API type III connection available)
- Vent port tapped (1/8" NPT) for plumbing to safe area
- Vent Valve can be rated to 30,000 psi in closed position, 15,000 psi in open position.

All Parker Autoclave Engineers products are designed in accordance with ASME B31.3 Chapter IX High Pressure Piping standards.
MVBB Series: Pressures to 20,000 psi (1380 bar)
Single Block & Bleed Needle Type Manifold Valve

Principle of Operation:

Parker Autoclave Engineers series MVBB block and bleed needle valve is a two stem manifold valve providing an economical and convenient method of isolating and venting or pressurization when calibrating pressure transmitters and gauges.

The valve utilizes Parker Autoclave Engineers Mini Valve packing and stem design making it compact and easy to use. The valve can be surface or panel mounted for safe operation. Manifold style valves reduce the number of fittings and space required for installation.

MVBB Single Block & Bleed Manifold Valve Features:

- MVBB Series valve design provides large valve performance in a small package
- Tubing sizes: 1/4" and 3/8". Pipe size: 1/2" NPT
- UNS S31600/31603, CW 316/316L Stainless Steel body construction as standard. Additional Material options including NACE approved (SOG) materials are available.
- 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 Glass packing provides dependable stem and body sealing with temperatures from -100° to 650°F (-70° to 340°C)
- Stem and packing gland design have been selected to achieve extended thread cycle life and reduced handle torque

Traceability of the materials used is ensured by use of heat and purchase order codes etched on valve body that also includes model number, MAWP rating, and material type references. All MVBB valves include connection collar and gland nut unless requested otherwise. Parker Autoclave Engineers’ valves are complemented by a complete line of Medium Pressure Cone & Thread fittings, tubing, check valves, relief valves, and line filters that provide a reliable bubble tight seal for dependable performance in gas or liquid service.
<table>
<thead>
<tr>
<th>Tube Outside Diameter Size (inches)</th>
<th>Connection Type</th>
<th>Orifice Size (Inches (mm))</th>
<th>Rated $C_v^*$</th>
<th>Pressure Rating psi (bar) @Room Temperature**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>SF250CX (1/4” MP)</td>
<td>0.094 (2.4)</td>
<td>0.20</td>
<td>20,000 (1380)</td>
</tr>
<tr>
<td>3/8</td>
<td>SF375CX (3/8” MP)</td>
<td>0.094 (2.4)</td>
<td>0.20</td>
<td>20,000 (1380)</td>
</tr>
<tr>
<td>1/2</td>
<td>NPT</td>
<td>0.094 (2.4)</td>
<td>0.20</td>
<td>15,000 (1035)</td>
</tr>
</tbody>
</table>

**Notes**

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

**Valve Packing Options:**

Standard Parker Autoclave Engineers valves with PTFE packing may be operated to 450°F (232°C). For additional temperatures, see options below and include suffix code in part number of valve selected:

- **TG** Standard valve with PTFE-Glass packing -100°F to 650°F (-70 to 340°C)
- **B** Cryogenic trim materials and PTFE packing required when below 0°F to -100°F (-73°C)

Note: Refer to the Tools, Installation, Operation and Maintenance catalog for proper connection, packing, seating & running torques.
Ordering Guide:

MVBB Series valves are furnished complete with connection components, unless otherwise specified. Valve options on page 15 do not apply for MVBB Manifold Valves.

Building a Part Number: Example: 20MVBB6

<table>
<thead>
<tr>
<th>Example Part Number: 20MVBB6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordering Parameters/Options:</td>
</tr>
<tr>
<td>Valve Series</td>
</tr>
<tr>
<td>A</td>
</tr>
</tbody>
</table>

A - Valve Series

| 20MVBB | 15MVBB |
| 20,000 psi Mini MVBB Block & Bleed Valve | 15,000 psi Mini MVBB Block & Bleed Valves |

B - Tubing OD or Pipe Size

| # | 1/4" MP (20MVBB option only) |
| 6 | 3/8" MP (20MVBB option only) |
| P8 | 1/2" Pipe NPT only (only applicable for 15MVBB Valve Series) |

E - Options (Multiple Options can be chosen)

| TG | PTFE Glass (25%) Packing (to 650°F) |
| B | Low Temperature service required below 0°F (-18°C) |
| K | Antivibration Gland (replaces standard gland) |
| *SOG | NACE Material, Hardness Verification/Certificate |
| **2507 | UNS 32750, 2507 Super Duplex Wetted Materials |
| ***IN625 | UNS N06625 Inconel 625 Wetted Materials |

Notes:

# For 1/4" MP (typically 4 code) option leave part code blank. i.e; 20MVBB
316 SS valve bodies are cold worked and not suitable for use in NACE (ISO 15156) applications. If required, contact factory for options.

* SOG suffix also changes CW 316 SS Body material to Annealed 316 SS suitable for NACE service, Pressure reduction of 60% possible

** Special Materials often have reduced MAWP ratings, see Technical brochure for assistance and for additional material options

Basic MVBB Repair Kits:

MVBB Valves are easily repaired. Add “R” to front of valve catalog number for proper repair kit (example: R20MVBB)

Include any catalog number suffix marked on original part when ordering repair kit. (ie; R20MVBB6-SOG)

Material of Construction:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spring Pin</td>
<td>18-8 SS</td>
</tr>
<tr>
<td>2</td>
<td>Handle</td>
<td>316 SS</td>
</tr>
<tr>
<td>3</td>
<td>Stem</td>
<td>316 SS</td>
</tr>
<tr>
<td>4</td>
<td>Packing Gland</td>
<td>316 SS</td>
</tr>
<tr>
<td>5</td>
<td>Body</td>
<td>316 SS</td>
</tr>
<tr>
<td>6</td>
<td>Packing Washer</td>
<td>316 SS</td>
</tr>
<tr>
<td>7</td>
<td>Packing</td>
<td>PTFE</td>
</tr>
<tr>
<td>8</td>
<td>Bottom Washer</td>
<td>316 SS</td>
</tr>
<tr>
<td>9</td>
<td>Screw</td>
<td>300 Series SS</td>
</tr>
<tr>
<td>10</td>
<td>Locking Device</td>
<td>316 SS</td>
</tr>
<tr>
<td>11</td>
<td>Spacer</td>
<td>316 SS</td>
</tr>
</tbody>
</table>

Typical spare parts found in Repair Kits
### MVBB Series Block & Bleed Dimensions:

#### Block and Bleed - MVBB

<table>
<thead>
<tr>
<th>Dimensions: inches (mm)</th>
<th>1/4 (8.35)</th>
<th>3/8 (9.53)</th>
<th>1/2 NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Diameter Tube</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orifice Diameter</td>
<td>0.094 (2.39)</td>
<td>0.094 (2.39)</td>
<td>0.094 (2.39)</td>
</tr>
</tbody>
</table>

**Dimensions Diagram:**

- **A**
- **B**
- **C**
- **D**
- **D1**
- **E**
- **F**
- **G**
- **G1**
- **H**
- **M**
- **N**
- **O**
- **P**
- **Q**

**Notes:**
- **G1** - Bracket mounting hole size
- **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.

---

Needle Valves: Block and Bleed: MVBB, 20DBNV, Wellhead Gauge, Bleed Valves 02-9328SE 0918
20DBNV Series: Pressures to 20,000 psi (1379 bar)
Double Block & Bleed Needle Type Manifold Valve

Principle of Operation:

Parker Autoclave Engineers DBNV double block and bleed needle valve provides true double valve isolation with a third vent valve in between for venting or bleeding, meeting both the API and OSHA valve definitions. Typically used as an interface with other components, usually pressure measurement transmitters, gauges and switches but can also be used for chemical injection, reducing leak points typical of a multi-valve fabrication.

A Double Block & Bleed valve can provide isolation in both the upstream and downstream directions, even in high-pressure or high-temperature situations. Isolation is important in cases where leakage through a valve could have major consequences.

DBNV Double Block & Bleed Manifold Valve Features:

- 20DBNV Series valve design provides large valve performance in a small package
- Tubing sizes: 1/4" to 3/4" Medium Pressure
- Rising stem/barstock body design typical of SM Series Valves
- 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 packing below stem threads provide dependable stem and body sealing. Optional packing materials available.
- Non-Rotating Stems prevent stem/seat galling
- Temperature Rated -423° to 1200°F (-252° to 650°C) with options
- Manufactured with UNS S31600/S31603 cold worked 316/316L stainless steel made to PAE proprietary standard

Parker Autoclave Engineers DBNV Manifold valves are complemented by a complete line of high pressure fittings and tubing. Traceability is ensured by use of heat and purchase order codes etched on valve body that also include model number, MAWP rating, and material type references. All valves include connection collar and gland nut unless requested otherwise.
<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>1/4</td>
<td>SF250CX (1/4” MP)</td>
<td>0.093 (2.36)</td>
<td>0.10</td>
<td>20,000 (1379)</td>
</tr>
<tr>
<td>3/8</td>
<td>SF375CX (3/8” MP)</td>
<td>0.093 (2.36)</td>
<td>0.27</td>
<td>20,000 (1379)</td>
</tr>
<tr>
<td>9/16</td>
<td>SF562CX (9/16” MP)</td>
<td>0.312 (7.92)</td>
<td>0.65</td>
<td>20,000 (1379)</td>
</tr>
<tr>
<td>3/4</td>
<td>SF750CX20 (3/4” MP)</td>
<td>0.438 (11.2)</td>
<td>2.52</td>
<td>20,000 (1379)</td>
</tr>
<tr>
<td>1/4</td>
<td>F250C (1/4” HP)</td>
<td>0.093 (2.36)</td>
<td>0.08</td>
<td>20,000 (1379)</td>
</tr>
<tr>
<td>9/16</td>
<td>F562C (9/16” HP)</td>
<td>0.093 (2.36)</td>
<td>0.27</td>
<td>20,000 (1379)</td>
</tr>
</tbody>
</table>

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

Valve Packing Options:

Standard Parker Autoclave Engineers valves with PTFE packing may be operated from 0°F (-17.8°C) to 450°F (232°C). High and Cryogenic temperature packing and/or extended stuffing box are available for service from -423°F (-252°C) to 1200°F (650°C) by adding the following suffixes to catalog order number:

- **B** Cryogenic trim materials and PTFE packing required when below 0°F (-18°C) to -100°F (-73°C)
- **LT** Extended stuffing box valve with PTFE packing and Cryogenic trim materials to -423°F (-252°C)
- **TG** Standard valve with PTFE-Glass packing -100°F (-73°C) to 600°F (316°C) (See also -B option above when below 0°F (-18°C))
- **GY** Standard valve with Graphite Yarn packing 32°F (0°C) to 800°F (427°C). Used when selecting HT option. Note: 3/4” valve using graphite yarn packing has significant increase in torque needed to actuate valve at pressure. Contact factory with application detail for assistance.
- **HT** Extended stuffing box valve with Graphite Yarn packing to 1200°F (650°C)

(See “Technical Brochure” for Pressure/Temperature effect on temperatures above ambient.)
Ordering Guide:

For complete information on available end connections, see end connections options below. 20DBNV valves are furnished complete with tube connections.

**Building a Part Number: Example: 20DBNVM4M4-XX**

<table>
<thead>
<tr>
<th>Ordering Parameters/Options:</th>
<th>20DBNV</th>
<th>M4</th>
<th>M4</th>
<th>--</th>
<th>XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - Valve Series</td>
<td>20DBNV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B - Tube Connection (see chart below)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M4</td>
<td>SF250CX (1/4&quot; MP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M6</td>
<td>SF375CX (3/8&quot; MP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M9</td>
<td>SF562CX20 (9/16&quot; MP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M12</td>
<td>SF750CX (3/4&quot; MP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H9</td>
<td>F562C (9/16&quot; HP) (API Type III connection)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C - Vent Connection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M4</td>
<td>SF250CX (1/4&quot; MP) - 20,000 psi MAWP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M6</td>
<td>SF375CX (3/8&quot; MP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P4</td>
<td>1/4&quot; Female NPT - 15,000 psi MAWP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**D - Options (See additional options on page 15)**

- K Antivibration Gland (replaces standard gland)
- B Cryogenic Trim materials required when below 0°F (-18°C) (included in LT)
- LT Low Temperature Extension (to -423°F) (includes PTFE packing)
- TG PTFE Glass (25%) Packing (to 600°F)
- GY Graphite Yarn Packing (to 800°F) [GY Packing increases Handle Torque, contact factory]
- HT High Temperature Extension (to 1200°F) (includes GY packing)
- **SOG NACE Material, Hardness Verification/Certificate**
- **2507** UNS 32750, 2507 Super Duplex Wetted Materials
- ***IN625** UNS N06625 Inconel 625 Wetted Materials

Notes:
316 SS valve bodies are cold worked and not suitable for use in NACE (ISO 15156) applications. If required, contact factory for options.

* SOG suffix also changes CW 316 SS Body material to Annealed 316 SS suitable for NACE service, Pressure reduction of 60% possible

*** Special Materials often have reduced MAWP ratings, see Technical brochure for assistance and for additional material options

**Basic DBNV Repair Kits:**

DBNV Valves are easily repaired. Add “R” to front of valve catalog number for proper repair kit (example: R20DBNV-VH9M4).

Include any catalog number suffix marked on original part when ordering repair kit. (ie; R20DBNVH9M4-SOG).
Material of Construction:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Handle</td>
<td>316 SS</td>
</tr>
<tr>
<td>2</td>
<td>Hex Nut, #5-40</td>
<td>300 Series SS</td>
</tr>
<tr>
<td>3</td>
<td>Thrust Washer</td>
<td>17-4 PH</td>
</tr>
<tr>
<td>4</td>
<td>Stem Sleeve</td>
<td>304 SS</td>
</tr>
<tr>
<td>5</td>
<td>Packing Gland</td>
<td>316 SS</td>
</tr>
<tr>
<td>6</td>
<td>Thrust Washer</td>
<td>17-4 PH</td>
</tr>
<tr>
<td>7</td>
<td>Packing Washer</td>
<td>AMPCO 45</td>
</tr>
<tr>
<td>8</td>
<td>Packing</td>
<td>PTFE</td>
</tr>
<tr>
<td>9</td>
<td>Bottom Washer</td>
<td>316 SS</td>
</tr>
<tr>
<td>10</td>
<td>Vee Stem</td>
<td>316 SS</td>
</tr>
<tr>
<td>11</td>
<td>Screw, #10</td>
<td>18-8 SS</td>
</tr>
<tr>
<td>12</td>
<td>Body</td>
<td>316 SS</td>
</tr>
<tr>
<td>13</td>
<td>Plug</td>
<td>316 SS</td>
</tr>
<tr>
<td>14</td>
<td>Screw, 3.55mm</td>
<td>300 Series SS</td>
</tr>
<tr>
<td>15</td>
<td>Locking Device</td>
<td>316 SS</td>
</tr>
<tr>
<td>16</td>
<td>Spacer</td>
<td>316 SS</td>
</tr>
<tr>
<td>17</td>
<td>Packing Washer</td>
<td>316 SS</td>
</tr>
<tr>
<td>18</td>
<td>Packing</td>
<td>PTFE</td>
</tr>
<tr>
<td>19</td>
<td>Bottom Washer</td>
<td>316 SS</td>
</tr>
<tr>
<td>20</td>
<td>Spring Pin</td>
<td>18-8 SS</td>
</tr>
<tr>
<td>21</td>
<td>Stem</td>
<td>316 SS</td>
</tr>
<tr>
<td>22</td>
<td>Packing Gland</td>
<td>316 SS</td>
</tr>
</tbody>
</table>

Typical spare parts found in Repair Kits (• indicates part not shown)
**Double Block and Bleed 20DBNV Series Dimensions:**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>1/4-MP</th>
<th>3/8-MP</th>
<th>9/16-MP</th>
<th>9/16-HP</th>
<th>3/4-MP</th>
</tr>
</thead>
<tbody>
<tr>
<td>20DBNVMAXX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20DBNVMINXX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20DBNVMH9XX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20DBNV12XX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tube Connection Size</th>
<th>Orifice Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-MP</td>
<td>3/8-MP</td>
</tr>
<tr>
<td>0.094 (2.39)</td>
<td>0.125 (3.2)</td>
</tr>
<tr>
<td>5.25 (133.35)</td>
<td>5.50 (139.70)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions: inches (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>1.00 (25.40)</td>
</tr>
<tr>
<td>0.88 (22.35)</td>
</tr>
<tr>
<td>2.00 (50.80)</td>
</tr>
<tr>
<td>0.50 (12.70)</td>
</tr>
<tr>
<td>0.83 (21.1)</td>
</tr>
<tr>
<td>0.63 (16.00)</td>
</tr>
<tr>
<td>1.43 (36.32)</td>
</tr>
<tr>
<td>0.50 (12.70)</td>
</tr>
<tr>
<td>0.50 (12.70)</td>
</tr>
<tr>
<td>0.31 (7.87)</td>
</tr>
</tbody>
</table>

Bracket Mounting Hole Diameter:

- G - Packing Gland mounting hole drill size
- H* - Dimension is with stem in closed position
- * 3/4” Mounting Holes are parallel (at top of valve) using dimensions given.
- Panel mounting drill size: 0.22” all valves
- All dimensions for reference only and subject to change
- For prompt service, Parker Autoclave stocks select products. Consult factory.

For complete information on available options, contact your Sales representative. 20DBNV Series valves are furnished with connection components unless otherwise specified.
Oil & Gas Wellhead Gauge/Bleed Valve:
API 6A Single Block Gauge Valve with Optional Bleed Valve
Pressures to 30,000 psi (2070 bar)

Principle of Operation:

Parker Autoclave Engineers Wellhead Gauge valve was designed using the API Type III connection (9/16" HP) and materials suitable for use in NACE (SOG) defined corrosive applications. The 9/16" HP connection - designed for non-NACE 30,000 psi application, when used with Annealed 316 SS instead of our standard cold worked 316 SS, is suitable to 20,000 psi MAWP. Standard Material Medium Pressure connections hold MAWP to 20,000 psi.

The 30GV is a single block valve with one inlet and 3 shared outlet connections. A separate Bleed Valve (20BV or 30BV) optioned with the same 9/16" HP Male connection as explained above, can be used in any of these ports to provide the bleed function if required. The other ports can be used with Pressure Gauge (PAE H-Style) and/or Pressure or Temperature Transmitter.

Bleed/Vent Valve can also be used to evacuate trapped air from pressure systems up to 30,000 psi (2070 bar)

Wellhead Gauge Features:

- One inlet, three outlet of same size and type
- Metal-to-metal bubble tight shut-off
- PTFE packing below stem threads provides dependable sealing
- UNS S31600/S31603 cold worked 316 SS as standard (optional annealed materials available)

Bleed Valve Features:

- One piece hex body construction allows easy installation
- Vent port tapped 1/8" NPT for plumbing to safe area
- Tee handle for easy operation
- Positive blow out prevention on stem
- “Adapter Male” * One Piece Male Medium or High Pressure connection, sized as required
- *Adapter Male connection is made to include the matching gland thread as well as the collar spacing and the typical tubing cone tip to form a one-piece connection.

Warning: Vent Outlet position is not controllable once torqued or damage will occur.
Needle Valves: Block and Bleed: MVBB, 20DBNV, Wellhead Gauge, Bleed Valves    02-9328SE   0918

<table>
<thead>
<tr>
<th>Series</th>
<th>Tube Outside Diameter Size (inches)</th>
<th>Connection Type</th>
<th>Orifice Size Inches (mm)</th>
<th>Rated Cv *</th>
<th>Cold Worked 316 SS Pressure Rating psi (bar)</th>
<th>Annealed (NACE) 316 SS Pressure Rating psi (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wellhead Gauge Valve</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20GV</td>
<td>3/8</td>
<td>SF375CX (3/8” MP)</td>
<td>0.125 (3.18)</td>
<td>0.23</td>
<td>20,000 (1380)</td>
<td>10,000 (690)</td>
</tr>
<tr>
<td>20GV</td>
<td>9/16</td>
<td>SF562CX (9/16” MP)</td>
<td>0.125 (3.18)</td>
<td>0.23</td>
<td>20,000 (1380)</td>
<td>10,000 (690)</td>
</tr>
<tr>
<td>30GV</td>
<td>9/16</td>
<td>F562C (9/16” HP)</td>
<td>0.125 (3.18)</td>
<td>0.33</td>
<td>30,000 (2070)</td>
<td>20,000 (1380)</td>
</tr>
<tr>
<td>Bleed Valve</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20BV</td>
<td>3/8</td>
<td>@ ASM375CX (3/8” MP)</td>
<td>0.093 (2.36)</td>
<td>-</td>
<td>20,000 (1380)</td>
<td>10,000 (690)</td>
</tr>
<tr>
<td>20BV</td>
<td>9/16</td>
<td>@ ASM562CX (9/16” MP)</td>
<td>0.093 (2.36)</td>
<td>-</td>
<td>20,000 (1380)</td>
<td>10,000 (690)</td>
</tr>
<tr>
<td>30BV</td>
<td>3/8</td>
<td>@ AM375C (3/8” HP)</td>
<td>0.093 (2.36)</td>
<td>-</td>
<td>30,000 (2070)*</td>
<td>20,000 (1380)*</td>
</tr>
<tr>
<td>30BV</td>
<td>9/16</td>
<td>@ AM562C (9/16” HP)</td>
<td>0.093 (2.36)</td>
<td>-</td>
<td>30,000 (2070)*</td>
<td>20,000 (1380)*</td>
</tr>
</tbody>
</table>

Notes
* Rating shown is in closed position.
For Explanation of ASM Connection, see Adapter Section in Catalog
BV Valve Rating @ 15,000 psi (1035 bar) in open position.
Glands and collars included in all standard assemblies. Consider using “-WO” suffix when using BV Bleed Valve and/or H-Style Gauge that won’t require use.

Ordering Guide:
Catalog number is created based on customer selection of product parameters, see below for example.

GV Series Wellhead Gauge Valve

Building a Part Number: Example: 30GV9078-XXX

Example Part Number: 30GV9078-XXX
Ordering Parameters/Options:
A - Valve Series
20GV  Wellhead Gauge Valve
30GV  Wellhead Gauge Valve

B - Outside Diameter Tube Size
6  3/8”
9  9/16”

C - Stem Type
00  One Piece Vee Stem
07  Non-Rotating Vee Stem

D - Body Pattern
8  4 Ports, 1 Inlet, 3 Outlets

E - Options
WO  “With Out” Collar and Gland in all connections
K   Antivibration Gland (replaces standard gland)
B   Cryogenic Trim materials required when below 0°F (-18°C) (included in LT)
TG  PTFE Glass (25%) Packing (to 600°F)
*SOG NACE Material, Hardness Verification/Certificate
***HC  UNS N10276 Hastelloy C276, Wetted Materials (Annealed)
***IN625 UNS N06625 Inconel 625 Wetted Materials (Annealed)
***2507  UNS 32750, 2507 Super Duplex Wetted Materials (Annealed)

Notes:
316 SS valve bodies are cold worked and not suitable for use in NACE (ISO 15156) applications. If required, contact factory for options.
*SOG suffix also changes CW 316 SS Body material to Annealed 316 SS suitable for NACE service, Pressure reduction of 60% possible
*** Special Materials often have reduced MAWP ratings, see Technical brochure for assistance and for additional material options
# GV Series Wellhead Gauge Valve Dimensions:

<table>
<thead>
<tr>
<th>Stem Type</th>
<th>Vee Type (only)</th>
<th>Catalog Number</th>
<th>SF375CX (3/8&quot; MP)</th>
<th>SF562CX (9/16&quot; MP)</th>
<th>F562C (9/16&quot; HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>20GV6078</td>
<td>20GV9078</td>
<td>30GV9078</td>
<td></td>
</tr>
</tbody>
</table>

## Tube Connection Type

<table>
<thead>
<tr>
<th>Tube Connection Type</th>
<th>SF375CX (3/8&quot; MP)</th>
<th>SF562CX (9/16&quot; MP)</th>
<th>F562C (9/16&quot; HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube Connection Size</td>
<td>3/8 MP</td>
<td>9/16 MP</td>
<td>9/16 HP</td>
</tr>
</tbody>
</table>

## Pressure Rating: psi (bar)

<table>
<thead>
<tr>
<th>Pressure Rating</th>
<th>psi</th>
<th>(bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000</td>
<td>1380</td>
<td></td>
</tr>
<tr>
<td>30,000</td>
<td>2070</td>
<td></td>
</tr>
</tbody>
</table>

## Dimensions: inches (mm)

<table>
<thead>
<tr>
<th>Dimension (in)</th>
<th>20GV6078</th>
<th>20GV9078</th>
<th>30GV9078</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2.00 (50.80)</td>
<td>2.00 (50.80)</td>
<td>2.00 (50.80)</td>
</tr>
<tr>
<td>B</td>
<td>3.12 (79.25)</td>
<td>3.88 (98.55)</td>
<td>3.88 (98.55)</td>
</tr>
<tr>
<td>C</td>
<td>2.00 (50.80)</td>
<td>2.75 (69.85)</td>
<td>2.75 (69.85)</td>
</tr>
<tr>
<td>D</td>
<td>4.5 (115)</td>
<td>4.5 (115)</td>
<td>4.5 (115)</td>
</tr>
<tr>
<td>E</td>
<td>1.13 (28.58)</td>
<td>1.31 (33.27)</td>
<td>1.31 (33.27)</td>
</tr>
<tr>
<td>F</td>
<td>1.00 (25.40)</td>
<td>1.38 (34.93)</td>
<td>1.38 (34.93)</td>
</tr>
<tr>
<td>G</td>
<td>0.50 (12.70)</td>
<td>0.66 (16.76)</td>
<td>0.66 (16.76)</td>
</tr>
<tr>
<td>H</td>
<td>0.94 (23.83)</td>
<td>0.94 (23.83)</td>
<td>0.94 (23.83)</td>
</tr>
<tr>
<td>J</td>
<td>3.00 (76.20)</td>
<td>3.00 (76.20)</td>
<td>3.00 (76.20)</td>
</tr>
<tr>
<td>K</td>
<td>.25 (6)</td>
<td>.38 (10)</td>
<td>.38 (10)</td>
</tr>
<tr>
<td>L</td>
<td>.25 (6)</td>
<td>.38 (10)</td>
<td>.38 (10)</td>
</tr>
<tr>
<td>M</td>
<td>.28 (7)</td>
<td>.28 (7)</td>
<td>.28 (7)</td>
</tr>
</tbody>
</table>

## Mounting Hole Dimensions

<table>
<thead>
<tr>
<th>Mounting Hole (in)</th>
<th>20GV6078</th>
<th>20GV9078</th>
<th>30GV9078</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.28 (7)</td>
<td>0.28 (7)</td>
<td>0.28 (7)</td>
</tr>
<tr>
<td>B</td>
<td>0.28 (7)</td>
<td>0.28 (7)</td>
<td>0.28 (7)</td>
</tr>
</tbody>
</table>

All dimensions for reference only and subject to change. For prompt service, Parker Autoclave stocks select products. Consult factory.

## Material of Construction:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hex Nut</td>
<td>300 Series SS</td>
</tr>
<tr>
<td>2</td>
<td>Hex Nut</td>
<td>300 Series SS</td>
</tr>
<tr>
<td>3</td>
<td>Stem</td>
<td>316 SS</td>
</tr>
<tr>
<td>4</td>
<td>Sleeve</td>
<td>304 SS</td>
</tr>
<tr>
<td>5</td>
<td>Packing Gland</td>
<td>AMPCO 45</td>
</tr>
<tr>
<td>6</td>
<td>Locking Device</td>
<td>302 SS</td>
</tr>
<tr>
<td>7</td>
<td>Thrust Washer</td>
<td>17-4PH</td>
</tr>
<tr>
<td>8</td>
<td>Packing Washer</td>
<td>AMPCO 45</td>
</tr>
<tr>
<td>9</td>
<td>Packing</td>
<td>PTFE</td>
</tr>
<tr>
<td>10</td>
<td>Handle</td>
<td>316 SS</td>
</tr>
<tr>
<td>11</td>
<td>Screw</td>
<td>300 Series SS</td>
</tr>
<tr>
<td>12</td>
<td>Body</td>
<td>316 SS</td>
</tr>
<tr>
<td>13</td>
<td>Bottom Washer</td>
<td>316 SS</td>
</tr>
<tr>
<td>14</td>
<td>Vee Stem</td>
<td>316 SS</td>
</tr>
</tbody>
</table>

Typical spare parts found in Repair Kits.
Ordering Guide:

Catalog number is created based on customer selection of product parameters, see below for example.

BV Series Bleed/Vent Valve (order individually)

Building a Part Number: Example: 30BV9002-XXX

<table>
<thead>
<tr>
<th>Example Part Number</th>
<th>30BV</th>
<th>9</th>
<th>00</th>
<th>2</th>
<th>–</th>
<th>XXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordering Parameters/Options:</td>
<td>Valve Series</td>
<td>Outside Diameter Tube Size</td>
<td>Stem Type</td>
<td>Body Pattern</td>
<td>Options</td>
<td></td>
</tr>
<tr>
<td>Table Reference: (see below)</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td></td>
</tr>
</tbody>
</table>

A - Valve Series

20BV 20,000 psi Medium Pressure Bleed Valve
30BV 30,000 psi High Pressure Bleed Valve

B - Outside Diameter Tube Size

4 1/4” Adapter Male (AM)
6 3/8” Adapter Male (AM375CX)
9 9/16” Adapter Male (AM562CX MP or AM562C HP)

C - Stem Type

00 One Piece Vee Stem

D - Body Pattern

2 Angle (bottom inlet)

E - Options

*SOG NACE Material, Hardness Verification/Certificate
***HC UNS N10276 Hastelloy C276, Wetted Materials (Annealed)
***IN625 UNS N06625 Inconel 625 Wetted Materials (Annealed)
***2507 UNS 32750, 2507 Super Duplex Wetted Materials (Annealed)

Notes:

316 SS valve bodies are cold worked and not suitable for use in NACE (ISO 15156) applications. If required, contact factory for options.

* SOG suffix also changes CW 316 SS Body material to Annealed 316 SS suitable for NACE service, Pressure reduction of 60% possible

*** Special Materials often have reduced MAWP ratings, see Technical brochure for assistance and for additional material options

Bleed Valve Dimensions:

<table>
<thead>
<tr>
<th></th>
<th>20BV4002</th>
<th>20BV6002</th>
<th>20BV9002</th>
<th>30BV9002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stem Type</td>
<td>VEE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection Type</td>
<td>SM250CX</td>
<td>SM375CX</td>
<td>SM562CX</td>
<td>M562C</td>
</tr>
<tr>
<td>Connection Size</td>
<td>1/4 MP</td>
<td>1/4 MP</td>
<td>1/4 MP</td>
<td>1/4 MP</td>
</tr>
<tr>
<td>Pressure Rating: psi (bar)</td>
<td>20,000 (1380)</td>
<td>20,000 (1380)</td>
<td>20,000 (1380)</td>
<td>30,000 (2070)</td>
</tr>
<tr>
<td>Dimensions: inches (mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>3.06 (78)</td>
<td>3.23 (82.04)</td>
<td>3.68 (93.47)</td>
<td>3.44 (87.38)</td>
</tr>
<tr>
<td>B</td>
<td>2.25 (57)</td>
<td>2.42 (61.47)</td>
<td>2.86 (72.64)</td>
<td>2.61 (66.29)</td>
</tr>
<tr>
<td>C</td>
<td>1.12 (28.5)</td>
<td>1.12 (28.45)</td>
<td>1.12 (28.45)</td>
<td>1.12 (28.45)</td>
</tr>
<tr>
<td>D</td>
<td>1.38 (35)</td>
<td>1.38 (35.05)</td>
<td>1.50 (38.10)</td>
<td>1.50 (38.10)</td>
</tr>
<tr>
<td>E</td>
<td>1.50 (38)</td>
<td>1.50 (38.10)</td>
<td>1.50 (38.10)</td>
<td>1.50 (38.10)</td>
</tr>
</tbody>
</table>

Notes:

*Adapter Male connection is made to include the matching gland thread and collar spacing along with typical tubing tip to form one-piece connection. “Warning” Rotation position is not controllable once torqued or damage will occur.

Bleed Valve max pressure is reduced to 15,000 psi when in OPEN position due to outlet connection

All dimensions for reference only and subject to change • For prompt service, Parker Autoclave stocks select products. Consult factory.
Valve Options:

High/Low Temperature Extension:
This option is only available on 20DBNV Double Block & Bleed Valves.
- **HT**  High Temperature (over 800°F (427°C))
- **LT**  Low Temperature (under -100°F (-73°C))

<table>
<thead>
<tr>
<th>Valve Series</th>
<th>Outside Diameter</th>
<th>Dimensions “A”</th>
<th>Vent Stem Extension (Not Shown)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20DBNV</td>
<td>1/4”</td>
<td>6.16 (157)</td>
<td>5.68 (144)</td>
</tr>
<tr>
<td></td>
<td>3/8”</td>
<td>6.16 (157)</td>
<td>5.68 (144)</td>
</tr>
<tr>
<td></td>
<td>9/16”</td>
<td>6.62 (160)</td>
<td>5.68 (144)</td>
</tr>
</tbody>
</table>

HT option code includes Graphite (-GY) packing
LT option code includes 316 SS Trim material and PTFE packing

Needle Valve Clam Shell Handle Lockout:
(order separately using part numbers shown below, padlock not included)

Clam Shell Handle locks are provided to lockout valves in open or closed position preventing unauthorized personnel from actuating valve during shutdown or emergency situations. This clamshell design is available in four (4) sizes dependent on handle length:

- P/N AE004855 – 1” to 2.5” handle length
- P/N 90088 – 2.5” to 5.0” handle length
- P/N 90194 – 6.5” to 10” handle length
- P/N AE004350 – 8” to 13” handle length
Parker Worldwide

North America
USA – Corporate,leveland, OH
Tel: +1 256 896 3000
falecom@parker.com
USA – IPD, Huntsville, AL
Tel: +1 256 881 2040
ipd@parker.com
USA – IPD, (Autoclave), Erie, PA
Tel: +1 814 860 5700
ipd@parker.com
CA – Canada, Grimsby, Ontario
Tel: +1 905-945-2274
ipd.canada@parker.com
South America
AR – Argentina, Buenos Aires
Tel: +54 3227 44 4129
falecom@parker.com
BR – Brazil, Diadema, SP
Diadema, SP
Tel: +55 11 4360 6700
falecom@parker.com
CL – Chile, Santiago
Tel: +56 (0) 2 2303 9640
falecom@parker.com
MX – Mexico, Toluca
Tel: +52 722 275 4200
contacto@parker.com

Asia Pacific
AU – Australia, Dandenong
Tel: +61 (0) 3 9842 5150
customer.service.au@parker.com
CN – China, Shanghai
Tel: +86 21 8289 5000
INGeotechnicalchina@parker.com
HK – Hong Kong
Tel: +852 2428 8008
IN – India, Mumbai
Tel: +91 22 6513 7081-85
ID – Indonesia, Tangerang
Tel: +62 2977 7900
park.idl@parker.com
JP – Japan, Tokyo
Tel: +(81) 3 6365 4200
infoply@parker.com
KR – South Korea, Seoul
Tel: +82 2 599 0400
park@kkr@parker.com
MY – Malaysia, Selangor
Tel: +603 784 90 800
park@my@parker.com
SG – Singapore
Tel: +65 6887 6300
park@sg@parker.com
TH – Thailand, Bangkok
Tel: +66 2 186 7000
phtailand@parker.com
TW – Taiwan, Taipei
Tel: +886 2 2298 8987
enquiry.tw@parker.com
VN – Vietnam, Ho Chi Minh City
Tel: +84 832 508 56
park_viet@parker.com

Europe, Middle East, Africa
AE – UAE, Dubai
Tel: +971 4 812 7100
parkr.mei@parker.com
AT – Austria, Wiener Neustadt
Tel: +43 (0) 2622 23501-0
parkr.austria@parker.com
AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0) 2622 23501 900
parkr.easternpe@parker.com
AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parkr.azerbaijan@parker.com
BE/LU – Belgium, Nivelles
Tel: +32 (0) 967 280 900
parkr.belgium@parker.com
BG – Bulgaria, Sofia
Tel: +359 2 980 1344
parkr.bulgaria@parker.com
BY – Belarus, Minsk
Tel: +375 29 573 24 00
parkr.belarus@parker.com
CH – Switzerland, Etov
Tel: +41 (0) 2 821 87 00
parkr.switzerland@parker.com
CZ – Czech Republic, Kecany
Tel: +420 284 083 111
parkr.czechrepublic@parker.com
DE – Germany, Kaarst
Tel: +49 (0) 2131 4016 0
parkr.germany@parker.com
DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parkr.denmark@parker.com
ES – Spain, Madrid
Tel: +34 902 33 00 01
parkr.span@parker.com
FI – Finland, Vantaa
Tel: +358 (0) 20 753 2500
parkr.finland@parker.com
FR – France, Contamine s’Arve
Tel: +33 (0) 9 25 80 25
parkr.france@parker.com
GR – Greece, Athens
Tel: +30 210 933 6450
parkr.greece@parker.com
HU – Hungary, Budapest
Tel: +36 223 885 470
parkr.hungary@parker.com
IE – Ireland, Dublin
Tel: +353 (0) 1 466 6370
parkr.ireland@parker.com
IT – Italy, Corsico (MI)
Tel: +39 09 45 19 21
parkr.itali@parker.com
KZ – Kazakhstan, Almaty
Tel: +7 7273 561 000
parkr.easternpe@parker.com
NL – The Netherlands, Oldenzaal
Tel: +31 (0) 541 585 000
parkr.nl@parker.com
NO – Norway, Stavanger
Tel: +47 66 75 34 00
parkr.norway@parker.com
PL – Poland, Warsaw
Tel: +48 (0) 22 573 24 00
parkr.poland@parker.com
PT – Portugal, Lecha de Palmeira
Tel: +351 22 999 7360
parkr.portugal@parker.com
RO – Romania, Bucharest
Tel: +40 21 252 1382
parkr.romania@parker.com
RU – Russia, Moscow
Tel: +7 495 645-2156
parkr.russia@parker.com
SE – Sweden, Spånga
Tel: +46 (0) 8 59 79 50 00
parkr.sweden@parker.com
SK – Slovakia, Bratislava
Tel: +421 484 162 252
parkr.slovakia@parker.com
SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parkr.slovenia@parker.com
TR – Turkey, Istanbul
Tel: +90 216 499 0781
parkr.turkey@parker.com
UA – Ukraine, Kiev
Tel: +38 (0) 2 573 24 00
parkr.ukraine@parker.com
UK – United Kingdom, Warwick
Tel: +44 (0) 1926 317 878
parkr.uk@parker.com
ZA – South Africa, Kempton Park
Tel: +27 (0) 11 961 0700
parkr.southafrica@parker.com

Needle Valves: Block and Bleed: MVBB, 20DBNV, Wellhead Gauge, Bleed Valves

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Parker Hannifin Manufacturing Ltd.
Instrumentation Products Division
Europe
Riverside Road
Pottington Business Park
Barnstaple, UK, EX31 1NP
Tel: 44 1271 373636
Fax: 44 1271 313131

Instrumentation Products Division
Division Headquarters
1005 A Cleaner Way
Huntsville, AL 35805 USA
Tel: 256 881 2040
Fax: 256 881 5072

Instrumentation Products Division
Autoclave Engineers Operation
8325 Hessinger Drive
Erie, PA 16509-4679
Tel: 814 860 5700
Fax: 814 860 5811
www.autoclave.com
www.parker.com/ipd
ISO-9001 Certified