ASTAVA draws from a strong engineering heritage, as well as seasoned business management. We offer a broad range of products – valves and manifolds suitable for gas and liquid services as well as full-service solutions that include custom engineering, design and manufacture of Instrument enclosures, modular mounting systems, hook-ups and interlocking solutions for critical conditions and temperatures.

As a customer-focused company, ASTAVA provides high-quality products and engineering solutions that address our customers’ business and technical requirements.

For the ASTAVA line, we can offer scalability to design:

- Choice of materials from AISI 316(L) to special alloy solutions for highly toxic areas
- Connections, pressure and temperature ratings varieties
- Bonnet assemblies offer different stem, seal and material selections
- Option for standard packing, O-Ring sealing and fugitive emissions bonnets
- Extensive range of valve configurations and flow schemes
- Fully equipped instrument enclosures

With over 50 years of designing and manufacturing reliable products and solutions, ASTAVA has acquired an outstanding reputation for quality and customer service. We are always inspired by the need to evolve and stay ahead of the ever-changing marketplace.
MANIFOLD FEATURES AND BENEFITS

The following unique features of the Astava line of instrument manifolds enable tailoring our high-quality products to the exact requirement of the customer and application:

### NACE MR-01-75 / MR-01-03
All manifolds comply with NACE MR-01-75 / MR-01-03 standards.

### FULL TRACEABILITY
All products are fully traceable to their components.

### WIDE VARIETY OF SEALING MATERIALS
PTFE; Grafoil®; Fluorocarbon FKM; NBR; EPDM; Silicon; and perfluorelastomer providing a wide coverage of applications.

### CERAMIC STEM BALL TIP Al₂O₃
Superior hardness prevents deformation of the sealing tip and wear, significantly increasing the lifetime of the product for isolation purposes.

### BONNET SELECTIONS

**O-ring stem-seal bonnet**
1. No packing adjustment
2. Extremely low operating torque
3. Compact design
4. Long life-cycle
5. Sealing below stem thread
6. Metal-to-metal bonnet option

**Packing stem-seal bonnet**
1. Wide chemical compatibility range
2. High temperature option (Grafoil®)
3. Low operating torque
4. Sealing below stem thread

### STEM MATERIAL
ST. ST. 316 Ti with chromium carbide diffusion coating
1. Long life-cycle
2. Galling prevention

---

**Features**
- Certified for ISO 15848-1:2006(E), (With PEEK or Polyimide seals)
- Blowout-proof stem
- Integrated back seat on stem for a secondary seal in the fully opened position
- Safety stop pin – prevents the bonnet from detaching the body due to vibration
- Stem seals below stem threads
- A choice of O-ring materials
- Oxygen clean per ASTM G-93 as an option
- 100% Factory Tested Compliance with MSS–SP–99
- Direct mount flange design per IEC61518 (MAWP 6000 psig)
- Working pressure range up to 690 bar (10,000 psig)
- Working Temperature range up to 550°C (1022°F)

---

Grafoil — TM GrafTech International Holdings, Inc.
The special sealing design applied in all ASTAVA Instrument Manifolds features a non-rotating ceramic ball tip.

The chemical composition of a ceramic ball tip is superior in hardness and functionality to a metal ball tip, eliminating sealing tip deformation and significantly increasing the lifetime of the product.

The stem threads are rolled and an integrated back seat design is applied to the packing type of bonnet. Applying a Stainless Steel 316 Ti stem with a chromium carbide diffusion coating results in maximum operation cycles and minimal risk of stem galling. Both packing and O-ring bonnets are designed with sealing below stem threads for maximum protection of the stem threads.

For maximum safety, the bonnet design prevents stem blowout, and a locking pin prevents unintentional disassembling of the bonnet.

### PRESSURE AND TEMPERATURE RATING

<table>
<thead>
<tr>
<th>Packing Material</th>
<th>Pressure (Psig)</th>
<th>Temperature (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grafoil®</td>
<td>Down to -60°C (-76°F)</td>
<td></td>
</tr>
<tr>
<td>PTFE</td>
<td>Down to -60°C (-76°F)</td>
<td></td>
</tr>
<tr>
<td>PEEK</td>
<td>Down to -60°C (-76°F)</td>
<td></td>
</tr>
<tr>
<td>Polyimide</td>
<td>Down to -10°C (14°F)</td>
<td></td>
</tr>
<tr>
<td>Fluorocarbon FKM</td>
<td>Down to -20°C (-4°F)</td>
<td></td>
</tr>
<tr>
<td>NBR</td>
<td>Down to -34°C (-29°F)</td>
<td></td>
</tr>
<tr>
<td>Perfluor</td>
<td>Down to -40°C (-40°F)</td>
<td></td>
</tr>
<tr>
<td>EPDM</td>
<td>Down to -45°C (-49°F)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>O-Ring Material</th>
<th>Pressure (bar)</th>
<th>Temperature (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluorocarbon FKM</td>
<td>10,000 psi (690 bar)</td>
<td>Available upon request</td>
</tr>
</tbody>
</table>

### Astava Valve Bonnets

Astava valve bonnets have color coded ring labels for service identification:

- **Red:** Vent Valves
- **Blue:** Isolate Valves
- **Green:** Equalize Valves

For severe service applications, ASTAVA manifolds can be configured with a metal-to-metal seal below the bonnet thread. A dust ring is attached to the bonnet thread or tack weld on the locking pin for extreme vibrating conditions.

### HANDLE OPTIONS

The standard handle of the ASTAVA line of instrument manifolds is a Stainless Steel T-bar. For high pressure applications of 10,000 psi (690 bar), an extended T-bar or hand wheel can be applied. Anti-tamper bonnet and key* lock options assure that the manifold is operated by qualified personnel only.

*Not included in order of anti-tamper bonnet manifold. This key should be separately ordered.

### CLEANING

All ASTAVA instrument manifolds are cleaned in accordance with the ASTAVA cleaning procedure. Oxygen clean is available in accordance with ASTM G-93.

### TESTING

All ASTAVA instrument manifolds are factory tested with Nitrogen at 800 psig (55 bar) based on MSS-SP-99. Seats have a maximum allowable leak rate of 0.1 std cm³/min. The Hydrostatic and Helium leak tests are available upon request.
## Packaging Bonnet

1. Set Screw (Qty: 1, Material: St.St. 304)
2. Bar Handle (Qty: 1, Material: St.St. 316L)
3. Gland (Qty: 1, Material: St.St. 316L)
4. Locking Nut (Qty: 1, Material: St.St. 316L)
5A. Pressure Ring (Qty: 1, Material: St.St. 316L)
5B. Back-up Ring (Qty: 2, Material: Virgin PTFE)
6A. Stem Packing (Qty: 1, Material: Virgin PTFE)
6B. Stem O-Ring (Qty: 1, Material: Fluorocarbon FKM)
7. Bonnet (Qty: 1, Material: St.St. 316L)
8. Stem (Qty: 1, Material: St.St. 316Ti Chrome-Carbide diffusion coated)
9. Ball (Qty: 1, Material: Ceramic)
10. Dust Protector (Qty: 1, Material: Fluorocarbon FKM)

### O-Ring Bonnet

1. Set Screw (Qty: 1, Material: St.St. 304)
2. Bar Handle (Qty: 1, Material: St.St. 316L)
3. Gland (Qty: 1, Material: St.St. 316L)
4. Locking Nut (Qty: 1, Material: St.St. 316L)
5A. Pressure Ring (Qty: 1, Material: St.St. 316L)
5B. Back-up Ring (Qty: 2, Material: Virgin PTFE)
6A. Stem Packing (Qty: 1, Material: Virgin PTFE)
6B. Stem O-Ring (Qty: 1, Material: Fluorocarbon FKM)
7. Bonnet (Qty: 1, Material: St.St. 316L)
8. Stem (Qty: 1, Material: St.St. 316Ti Chrome-Carbide diffusion coated)
9. Ball (Qty: 1, Material: Ceramic)
10. Dust Protector (Qty: 1, Material: Fluorocarbon FKM)

### Metal-to-Metal Bonnet

1. Set Screw (Qty: 1, Material: St.St. 304)
2. Bar Handle (Qty: 1, Material: St.St. 316L)
3. Gland (Qty: 1, Material: St.St. 316L)
4. Locking Nut (Qty: 1, Material: St.St. 316L)
5A. Pressure Ring (Qty: 1, Material: St.St. 316L)
5B. Back-up Ring (Qty: 2, Material: Virgin PTFE)
6A. Stem Packing (Qty: 1, Material: Virgin PTFE)
6B. Stem O-Ring (Qty: 1, Material: Fluorocarbon FKM)
7. Bonnet (Qty: 1, Material: St.St. 316L)
8. Stem (Qty: 1, Material: St.St. 316Ti Chrome-Carbide diffusion coated)
9. Ball (Qty: 1, Material: Ceramic)
10. Dust Protector (Qty: 1, Material: Fluorocarbon FKM)

Bottom metal seal protects bonnet's threads from the dust. For fugitive emissions applications.
STANDARD CONFIGURATION DIMENSIONS
1-WAY MANIFOLDS

| Instrument Mount Type | End Connection | ASTAVA Ordering Part Number | Dimensions
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mm</td>
</tr>
<tr>
<td>Remote Mount</td>
<td>1/2” FNPT</td>
<td>-</td>
<td>102-06</td>
</tr>
<tr>
<td></td>
<td>1/2” FNPT</td>
<td>-</td>
<td>102-01</td>
</tr>
<tr>
<td></td>
<td>1/2” MNPT</td>
<td>1/2” FNPT(3x)</td>
<td>104-06</td>
</tr>
<tr>
<td></td>
<td>1/2” MNPT</td>
<td>1/2” FNPT(3x)</td>
<td>104-01</td>
</tr>
</tbody>
</table>

NEEDLE VALVE
102-06

MULTIPORT VALVE
104-06
### Standard Configuration Dimensions

#### 1-Way Manifolds

<table>
<thead>
<tr>
<th>Instrument Mount Type</th>
<th>End Connection</th>
<th>ASTAVA Ordering Part Number</th>
<th>Dimensions (mm/in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Mount</td>
<td>Process 1/2&quot; MNPT</td>
<td>Instrument 1/2&quot; FNPT (3x)</td>
<td>D Open - 108-06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>184.0 7.24 38.0 1.50 32.0 1.26 63.0 2.48 45.0 1.77</td>
</tr>
<tr>
<td></td>
<td>Process 1/2&quot; MNPT</td>
<td>Instrument 1/2&quot; FNPT (3x)</td>
<td>D Open - 108-01</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>184.0 7.24 38.0 1.50 32.0 1.26 79.0 3.11 50.0 1.97</td>
</tr>
<tr>
<td></td>
<td>Process 1/2&quot; MNPT</td>
<td>Instrument 1/2&quot; FNPT 1/4&quot; FNPT</td>
<td>106-06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100.0 3.54 30.0 1.18 32.0 1.26 63.0 2.48 45.0 1.77</td>
</tr>
<tr>
<td></td>
<td>Process 1/2&quot; MNPT</td>
<td>Instrument 1/2&quot; FNPT 1/4&quot; FNPT</td>
<td>106-01</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100.0 3.54 30.0 1.18 32.0 1.26 79.0 3.11 50.0 1.97</td>
</tr>
</tbody>
</table>

#### Extended Multiport Valve

**108-06**

![Diagram of the extended multiport valve 108-06](image)

- **Process Instrument Vent / Bleed**
  - Remote Mount
    - 1/2" MNPT 1/2" FNPT (3x)
    - Part Number: 108-06
    - Dimensions: 184.0 7.24 38.0 1.50 32.0 1.26 63.0 2.48 45.0 1.77
    - Part Number: 108-01
    - Dimensions: 184.0 7.24 38.0 1.50 32.0 1.26 79.0 3.11 50.0 1.97
    - Part Number: 106-06
    - Dimensions: 100.0 3.54 30.0 1.18 32.0 1.26 63.0 2.48 45.0 1.77
    - Part Number: 106-01
    - Dimensions: 100.0 3.54 30.0 1.18 32.0 1.26 79.0 3.11 50.0 1.97

#### Gauge Valve

**106-06**

![Diagram of the gauge valve 106-06](image)
**Warning!**
The system designer and user have the sole responsibility for selecting products suitable for their special application requirements, ensuring their safe and trouble-free installation, operation, and maintenance. Application details, material compatibility, and product ratings should all be considered for each selected product. Improper selection, installation, or use of products can cause property damage or personal injury.

Grafoil — TM GraTech International Holdings, Inc.

### ORDERING INFORMATION

#### 1-WAY MANIFOLDS

### HOW TO ORDER

**Family** Type-Flow Connection

<table>
<thead>
<tr>
<th>Schematic Flow</th>
<th>Sketch</th>
<th>Connection</th>
<th>Size</th>
<th>Type</th>
<th>Option</th>
<th>Code</th>
<th>Packing</th>
<th>Material</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Female to Female</td>
<td>1/4 NPT</td>
<td>/B</td>
<td>All connections BSPP</td>
<td>-01 PTFE SS 316(L)</td>
<td>/ AT</td>
<td>Anti-Tamper Bonnets</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td></td>
<td>Female to Female</td>
<td>1/2 NPT</td>
<td>/10K</td>
<td>10K Solution</td>
<td>-02 PTFE Alloy 400</td>
<td>/ C</td>
<td>Oxygen Cleaned</td>
<td></td>
</tr>
<tr>
<td>03</td>
<td></td>
<td>Male to Female</td>
<td>1/2 NPT</td>
<td>/34</td>
<td>3/4” Process &amp; Instrument</td>
<td>-03 PTFE Alloy C-276</td>
<td>/ LD</td>
<td>Locking Device</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td></td>
<td>Male to Female</td>
<td>1/2 NPT</td>
<td></td>
<td></td>
<td>-04 PTFE Titan</td>
<td></td>
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</tr>
<tr>
<td>06</td>
<td></td>
<td>Male to Female</td>
<td>1/2 NPT</td>
<td></td>
<td></td>
<td>-05 Grafoil SS 316 (L)</td>
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<td></td>
</tr>
<tr>
<td>08</td>
<td></td>
<td>Male to Female</td>
<td>1/2 NPT</td>
<td></td>
<td></td>
<td>-06 Fluorcarbon FKM SS 316 (L)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>-09 Perfluoroelastomer SS 316 (L)</td>
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<td></td>
<td>-12 PTFE Alloy 625</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>-22 PTFE Duplex F51</td>
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</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>-29 PTFE Super Duplex F53</td>
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<td>-40 PTFE Alloy 825</td>
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<td>-81 PTFE 321</td>
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</tbody>
</table>
### STANDARD CONFIGURATION DIMENSIONS

#### 2-WAY DIRECT MOUNT

<table>
<thead>
<tr>
<th>Instrument Mount Type</th>
<th>End Connection</th>
<th>ASTAVA Ordering Part Number</th>
<th>Dimensions (mm)</th>
<th>Dimensions (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Process</strong></td>
<td><strong>Instrument</strong></td>
<td><strong>Vent / Bleed</strong></td>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>Direct Mount</td>
<td>1/2&quot; FNPT</td>
<td>&quot;Flange&quot; 1/4&quot; FNPT</td>
<td>213-06</td>
<td>85</td>
</tr>
<tr>
<td>*Flange</td>
<td>1/4&quot; FNPT</td>
<td>217-06</td>
<td>153</td>
<td>6.02</td>
</tr>
</tbody>
</table>

* Flange Standard per IEC 61518-A

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**213-06**

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**217-06**
### Standard Configuration Dimensions

#### 2-Way Remote Mount

<table>
<thead>
<tr>
<th>Instrument Mount Type</th>
<th>End Connection</th>
<th>ASTAVA Ordering Part Number</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Mount</td>
<td>Process 1/2&quot; FNPT, Instrument 1/2&quot; FNPT, Vent 1/4&quot; FNPT</td>
<td>205-06</td>
<td>A 79 mm, B 3.11 in, C 79.0 mm, D 3.11 in, E 32.0 mm, F 1.26 in, G 92.0 mm, H 3.62 in, I 26.0 mm, J 1.02 in</td>
</tr>
<tr>
<td></td>
<td>Process 1/2&quot; FNPT, Instrument 1/2&quot; FNPT, Vent 1/4&quot; FNPT</td>
<td>211-06</td>
<td>A 107 mm, B 4.21 in, C 79.4 mm, D 3.13 in, E 65.0 mm, F 2.56 in, G 5.0 mm, H 0.20 in, I 26.0 mm, J 1.02 in</td>
</tr>
<tr>
<td></td>
<td>Process 1/2&quot; FNPT, Instrument 1/2&quot; FNPT, Vent 1/4&quot; FNPT</td>
<td>207-06</td>
<td>A 156 mm, B 6.14 in, C - , D - , E 65.0 mm, F 2.56 in, G 59.0 mm, H 2.32 in, I 32.0 mm, J 1.26 in, K 18.0 mm, L 0.71 in</td>
</tr>
</tbody>
</table>

### Diagrams

**205-06**

**211-06**

**207-06**
**ORDERING INFORMATION**

**2-WAY MANIFOLDS**

### HOW TO ORDER

**Family**  
Type-Flow Connection

<table>
<thead>
<tr>
<th>Schematic Flow</th>
<th>Sketch</th>
<th>Connection</th>
<th>Size</th>
<th>Type</th>
<th>Option</th>
<th>Body / Sealing Selection</th>
<th>Options</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td></td>
<td>Male to Female</td>
<td>1/2</td>
<td>NPT</td>
<td>/8</td>
<td>All connection BSPP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td></td>
<td>Female to Female</td>
<td>1/4</td>
<td>NPT</td>
<td>/10K</td>
<td>10K Solution</td>
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<td></td>
</tr>
<tr>
<td>05</td>
<td></td>
<td>Female to Female</td>
<td>1/2</td>
<td>NPT</td>
<td>/34</td>
<td>3/4&quot; Process &amp; Instrument</td>
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<td></td>
</tr>
<tr>
<td>08</td>
<td></td>
<td>Female to Male</td>
<td>1/2</td>
<td>NPT</td>
<td>/14</td>
<td>1/4&quot; proces &amp; instrument</td>
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<tr>
<td>07</td>
<td></td>
<td>Female to Female</td>
<td>1/2</td>
<td>NPT</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>11</td>
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<td>1/2</td>
<td>NPT</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>13</td>
<td></td>
<td>Female to Flanged</td>
<td>1/2</td>
<td>NPT</td>
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<td>17</td>
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<td>NPT</td>
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<tr>
<td>06</td>
<td></td>
<td>Male to Male</td>
<td>1/2</td>
<td>NPT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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**STANDARD CONFIGURATION DIMENSIONS**

**3-WAY DIRECT MOUNT**

<table>
<thead>
<tr>
<th>Instrument Mount Type</th>
<th>End Connection</th>
<th>Process Instrument Vent / Bleed</th>
<th>ASTAVA Ordering Part Number</th>
<th>Dimensions</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Mount</td>
<td></td>
<td></td>
<td></td>
<td>mm</td>
<td>in</td>
<td>mm</td>
<td>in</td>
<td>mm</td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td>1/2” FNPT *Flange</td>
<td>-</td>
<td>302-06</td>
<td>181.0</td>
<td>7.13</td>
<td>95.0</td>
<td>3.74</td>
<td>86.0</td>
<td>3.39</td>
<td>82.0</td>
<td>3.11</td>
</tr>
<tr>
<td>1/2” FNPT *Flange</td>
<td>-</td>
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<td>161.0</td>
<td>6.34</td>
<td>107.0</td>
<td>4.21</td>
<td>65.0</td>
<td>2.56</td>
<td>150.0</td>
<td>5.91</td>
</tr>
</tbody>
</table>

* Flange Standard per IEC 61518-A

---

**302-06**

![Diagram of 302-06](image1)

**306-06**

![Diagram of 306-06](image2)
**STANDARD CONFIGURATION DIMENSIONS**

**3-WAY DIRECT MOUNT**

<table>
<thead>
<tr>
<th>Instrument Mount Type</th>
<th>End Connection</th>
<th>ASTAVA Ordering Part Number</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Mount</td>
<td>Process Instrument Vent / Bleed</td>
<td>mm</td>
<td>in</td>
</tr>
<tr>
<td>1/2” FNPT</td>
<td>*Flange</td>
<td>329-06</td>
<td>210.0</td>
</tr>
<tr>
<td>*Flange</td>
<td>*Flange</td>
<td>303-06</td>
<td>181.0</td>
</tr>
</tbody>
</table>

* Flange Standard per IEC 61518-A

---

**329-06**

* Optimal vent / test ports

---

**303-06**

INSTRUMENT VALVES & MANIFOLDS
# Standard Configuration Dimensions

## 3-Way Remote Mount

### Instrument Mount Type

<table>
<thead>
<tr>
<th>End Connection</th>
<th>ASTAVA Ordering Part Number</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Process Instrument Vent</td>
<td>mm</td>
<td>in</td>
</tr>
<tr>
<td>Remote Mount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2” FNPT</td>
<td>185.0</td>
<td>7.28</td>
</tr>
<tr>
<td>1/2” MNPT</td>
<td>135.0</td>
<td>5.31</td>
</tr>
</tbody>
</table>

---

### 307-06

![Diagram of 307-06](image)

---

### 332-06

![Diagram of 332-06](image)
### HOW TO ORDER

**Family**  
Type-Flow Connection

<table>
<thead>
<tr>
<th>Code</th>
<th>Family</th>
<th>Flow Schematic</th>
<th>Sketch</th>
<th>Connection</th>
<th>Size</th>
<th>Type</th>
<th>Option</th>
<th>Code</th>
<th>Packing</th>
<th>Material</th>
<th>Options</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>3</td>
<td><img src="schematic.png" alt="3-way schematic" /></td>
<td><img src="sketch.png" alt="schematic" /></td>
<td>Female to Flanged</td>
<td>1/2 NPT</td>
<td>/B</td>
<td>All connection BSPP /10K</td>
<td>01</td>
<td>PTFE</td>
<td>SS 316(L)</td>
<td>/ AT</td>
<td>Anti-Temper Bonnets</td>
</tr>
<tr>
<td>06</td>
<td>3</td>
<td><img src="schematic.png" alt="3-way schematic" /></td>
<td><img src="sketch.png" alt="schematic" /></td>
<td>Female to Flanged</td>
<td>1/2 NPT</td>
<td>/C</td>
<td>Oxygen Cleaned</td>
<td>02</td>
<td>PTFE</td>
<td>Alloy400</td>
<td>/ C</td>
<td>Oxygen Cleaned</td>
</tr>
<tr>
<td>29</td>
<td>3</td>
<td><img src="schematic.png" alt="3-way schematic" /></td>
<td><img src="sketch.png" alt="schematic" /></td>
<td>Female to Flanged</td>
<td>1/2 NPT</td>
<td>/LD</td>
<td>Locking Device</td>
<td>03</td>
<td>PTFE</td>
<td>Alloy C-276</td>
<td>/ LD</td>
<td>Locking Device</td>
</tr>
<tr>
<td>07</td>
<td>3</td>
<td><img src="schematic.png" alt="3-way schematic" /></td>
<td><img src="sketch.png" alt="schematic" /></td>
<td>Female to Female</td>
<td>1/2 NPT</td>
<td>/</td>
<td></td>
<td>04</td>
<td>PTFE</td>
<td>Titan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>3</td>
<td><img src="schematic.png" alt="3-way schematic" /></td>
<td><img src="sketch.png" alt="schematic" /></td>
<td>Flanged to Flanged</td>
<td>-</td>
<td>-</td>
<td></td>
<td>05</td>
<td>Grafoil</td>
<td>SS 316 (L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>3</td>
<td><img src="schematic.png" alt="3-way schematic" /></td>
<td><img src="sketch.png" alt="schematic" /></td>
<td>Male to Female</td>
<td>1/2 NPT</td>
<td>/</td>
<td></td>
<td>06</td>
<td>Fluorocarbon FKM</td>
<td>SS 316 (L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>09</td>
<td>Perfluoroelastomer</td>
<td>SS 316 (L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>PTFE</td>
<td>Alloy 625</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22</td>
<td>PTFE</td>
<td>Duplex F51</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>PTFE</td>
<td>Super Duplex F53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40</td>
<td>PTFE</td>
<td>Alloy 825</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>81</td>
<td>PTFE</td>
<td>321</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Warning!**  
The system designer and user have the sole responsibility for selecting products suitable for their special application requirements, ensuring their safe and trouble-free installation, operation, and maintenance. Application details, material compatibility and product ratings should all be considered for each selected product. Improper selection, installation or use of products can cause property damage or personal injury.
# STANDARD CONFIGURATION DIMENSIONS

## 4-WAY REMOTE MOUNT

<table>
<thead>
<tr>
<th>Instrument Mount Type</th>
<th>End Connection</th>
<th>ASTM ATA Ordering Part Number</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Direct Mount</td>
<td></td>
<td></td>
<td>mm</td>
</tr>
<tr>
<td>1/4&quot; FNPT</td>
<td>&quot;Flange&quot;</td>
<td>476-06</td>
<td>208.0</td>
</tr>
<tr>
<td>1/4&quot; BSPP</td>
<td>&quot;Flange&quot;</td>
<td>482-06</td>
<td>236.0</td>
</tr>
</tbody>
</table>

* Flange Standard per IEC 61518-A

---

**476-06**

![Image of 476-06 configuration](image)

**482-06**

![Image of 482-06 configuration](image)
### HOW TO ORDER

**Family** Type-Flow Connection

<table>
<thead>
<tr>
<th>Code</th>
<th>Flow Schematic</th>
<th>Sketch</th>
<th>Connection</th>
<th>Size</th>
<th>Type</th>
<th>Packing</th>
<th>Material</th>
<th>Options</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td></td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>BSPP</td>
<td>PTFE</td>
<td>SS 316(L)</td>
<td>/ AT</td>
<td>Anti-Tamper Bonnets</td>
</tr>
<tr>
<td>02</td>
<td></td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>PTFE</td>
<td>Alloy400</td>
<td>/ C</td>
<td>Oxygen Cleaned</td>
</tr>
<tr>
<td>03</td>
<td></td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>PTFE</td>
<td>Alloy C-276</td>
<td>/ LD</td>
<td>Locking Device</td>
</tr>
<tr>
<td>04</td>
<td></td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>PTFE</td>
<td>Titan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td></td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>BSPP</td>
<td>Grafoil</td>
<td>SS 316 (L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>Fluorcarbon</td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>FKM</td>
<td>SS 316 (L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>Perfluorelastomer</td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>PTFE</td>
<td>SS 316 (L)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>PTFE</td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>PTFE</td>
<td>Alloy 625</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>PTFE</td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>PTFE</td>
<td>Duplex F51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>PTFE</td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>PTFE</td>
<td>Super Duplex F53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>PTFE</td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>PTFE</td>
<td>Alloy 825</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>PTFE</td>
<td></td>
<td>Female to Flanged</td>
<td>1/4</td>
<td>NPT</td>
<td>PTFE</td>
<td>321</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Standard Configuration Dimensions
### 5-Way Direct Mount

<table>
<thead>
<tr>
<th>Instrument Mount Type</th>
<th>End Connection</th>
<th>ASTAVA Ordering Part Number</th>
<th>Dimensions (mm/in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Mount</td>
<td>1/2” FNPT *Flange 1/4” FNPT</td>
<td>502-06</td>
<td>A: 265.0/10.43, B: 41.0/1.61, C: 1.61/mm, D: 106.0/4.17, E: 170.0/6.69, F: 32.0/1.26, G: 16.0/0.63</td>
</tr>
<tr>
<td>Direct Mount</td>
<td>1/2” FNPT *Flange 1/4” FNPT</td>
<td>508-06</td>
<td>A: 220.0/8.66, B: 81.0/3.11, C: 3.11/mm, D: 122.0/4.80, E: 140.0/5.51, F: 32.0/1.26, G: 16.0/0.63</td>
</tr>
</tbody>
</table>

* Flange Standard per IEC 61518-A

---

### 502-06

![Diagram of 502-06](image)

### 508-06

![Diagram of 508-06](image)

---

Grafoil — TM GraTech International Holdings, Inc.
STANDARD CONFIGURATION DIMENSIONS
5-WAY DIRECT MOUNT

<table>
<thead>
<tr>
<th>Instrument Mount Type</th>
<th>End Connection</th>
<th>ASTAVA Ordering Part Number</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Mount</td>
<td></td>
<td>576/1/2-06</td>
<td>A</td>
</tr>
<tr>
<td>1/2” FNPT</td>
<td>*Flange</td>
<td></td>
<td>210.0</td>
</tr>
</tbody>
</table>

* Flange Standard per IEC 61518-A

**INSTRUMENT**
IEC 61518-A (2x)

Diagram of 5-way direct mount manifold with dimensions indicated.
5-WAY REMOTE MOUNT

<table>
<thead>
<tr>
<th>Instrument Mount Type</th>
<th>End Connection</th>
<th>ASTAVA Ordering Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Process</td>
<td>Instrument</td>
<td>Vent / Bleed</td>
</tr>
<tr>
<td>Remote Mount</td>
<td>1/2&quot; FNPT</td>
<td>1/2&quot; FNPT</td>
<td>1/4&quot; FNPT</td>
</tr>
<tr>
<td></td>
<td>1/2&quot; FNPT</td>
<td>1/2&quot; FNPT</td>
<td>1/4&quot; FNPT</td>
</tr>
</tbody>
</table>

509-06

![Diagram of 509-06 remote mount]

512-06

![Diagram of 512-06 remote mount]
## HOW TO ORDER

### Family Type-Flow Connection

<table>
<thead>
<tr>
<th>Code</th>
<th>Packing</th>
<th>Material</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>PTFE</td>
<td>SS 316(L)</td>
<td>All connection BSPP / /10K 10K solution</td>
</tr>
<tr>
<td>02</td>
<td>PTFE</td>
<td>Alloy400</td>
<td>/ AT Ant tamper bonnets / C Oxygen cleaned</td>
</tr>
<tr>
<td>03</td>
<td>PTFE</td>
<td>Alloy C-276</td>
<td>/ LD Locking device</td>
</tr>
<tr>
<td>04</td>
<td>PTFE</td>
<td>Titan</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>Grafoil</td>
<td>SS 316 (L)</td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>Fluorcarbon FKM</td>
<td>SS 316 (L)</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>Perfluorelastomer</td>
<td>SS 316 (L)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>PTFE</td>
<td>Alloy 625</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>PTFE</td>
<td>Duplex F51</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>PTFE</td>
<td>Super Duplex F53</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>PTFE</td>
<td>Alloy 825</td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>PTFE</td>
<td>321</td>
<td></td>
</tr>
</tbody>
</table>
**ACCESSORIES**

**BLEED VALVE**

**1/4” MNPT**

- Model: 52.900/14

**1/2” MNPT**

- Model: 52.900

**BLIND PLUG**

**1/4” MNPT**

- Model: 50.901

**1/2” MNPT**

- Model: 50.900

**MOUNTING GASKET IEC 61518-A**

**PTFE**

- Spare: 087

**GRAFOIL®**

- Spare: 009

Kit contains 2 gaskets
**MOUNTING BRACKET AISI 316**

**WALL MOUNTING**

906

Kit contains: Bracket, 2x M8x12 bolts.
Upon order, please make sure that the Manifold is suitable for bracket mounting.

**MOUNTING BRACKET AISI 316**

**PIPE MOUNTING - 2 INCH**

906/P

Kit contains: Bracket, 2x Bolts M8x12 bolts, 2x tie rod, 2x Tie rod brackets, 4x M8 snapnut.
Upon order, please make sure that the manifold is suitable for bracket mounting.
**GAUGE CONNECTOR**

**360° POSITIONING MALE TO FEMALE**
60.700

![Diagram of 360° Positioning Male to Female Gauge Connector]

Fluorocarbon FKM O-Ring

**360° POSITIONING MALE TO MALE**
60.750

![Diagram of 360° Positioning Male to Male Gauge Connector]

**ANTI-TAMPER KEY**

**5 MM**
59.003

![Diagram of Anti-Tamper Key]

Not included in order of Anti-Tampered Bonnet Manifold. This key should be ordered separately.

**SYPHON / PULSATION DAMPENER**

**57.900**

![Diagram of Syphon / Pulsation Dampener]
ASTAVA PRODUCT RANGE

Monoflanges

Sizes
Up to 4” / 10,000 PSI
According to
• ASME B16.5
• API
• EN 1092.1

Material:
• AISI 316(L)
• Alloy 400
• Alloy C-276
• Alloy 625/825
• Duplex
• Titan
• Additional exotic

Slimline Monoflanges

Probes

Flushing Rings

Distribution valves

Sunshades

Instrument Enclosures

Half Body Enclosures

Full-Body Enclosures

ASTAVA PRODUCT RANGE

INSTRUMENT VALVES & MANIFOLDS
ASTAVA PRODUCT RANGE

ENCLOSURES

Equipped Instrument Enclosures

Body Options
- Full-body GRP enclosures
- Half-body GRP enclosures
- Full-body AISI 316 enclosures

Heating Options
- Steam heater
- Electrical space heater (black anodized aluminum, AISI 316)
- Electrical block heater (black anodized aluminum, AISI 316)
- Thermostat (black anodized aluminum)

Manifolds
- According to customer application

Mounting Accessories
- According to ordering information

NUCLEAR VALVES

The products are engineered and manufactured in accordance with ASME and RCC-M international technical standards and are completed according to customer-specific requirements

VENTURI ASSEMBLIES
INTERLOCKING SOLUTIONS

Configurations:
- 1001 (SIL3)
- 1002 (SIL4)
- 2003 (SIL4)
- 1004 (SIL4)

Unmatched Design
- Highest Safety
- Optimal Availability
- Safety IEC 61508 Approved
- SIL3/4 Certified
- HiPPS

ACCESSORIES

SEAL POTS

For Buffer and Drain functions ASTAVA supplies Buffer and Drain pots. The Buffer/Seal pot is used in level application and is designed to act as a buffer for redundant fluids from the process in the wet leg.

SPECIAL PRODUCTS

Tailored per customer request for a complete package
- ASTAVA Engineering
- ASTAVA Manufacturing
- ASTAVA Assembling
- ASTAVA Documentation
The main focus of ASTAVA B.V. is to provide its customer with a complete high-quality solution. Creativity and innovation for new solutions go hand-in-hand with the continuous improvement of our existing product line to assure that ASTAVA continues to play a leading role in its field.

ASTAVA B.V. is approved by the following notified bodies: