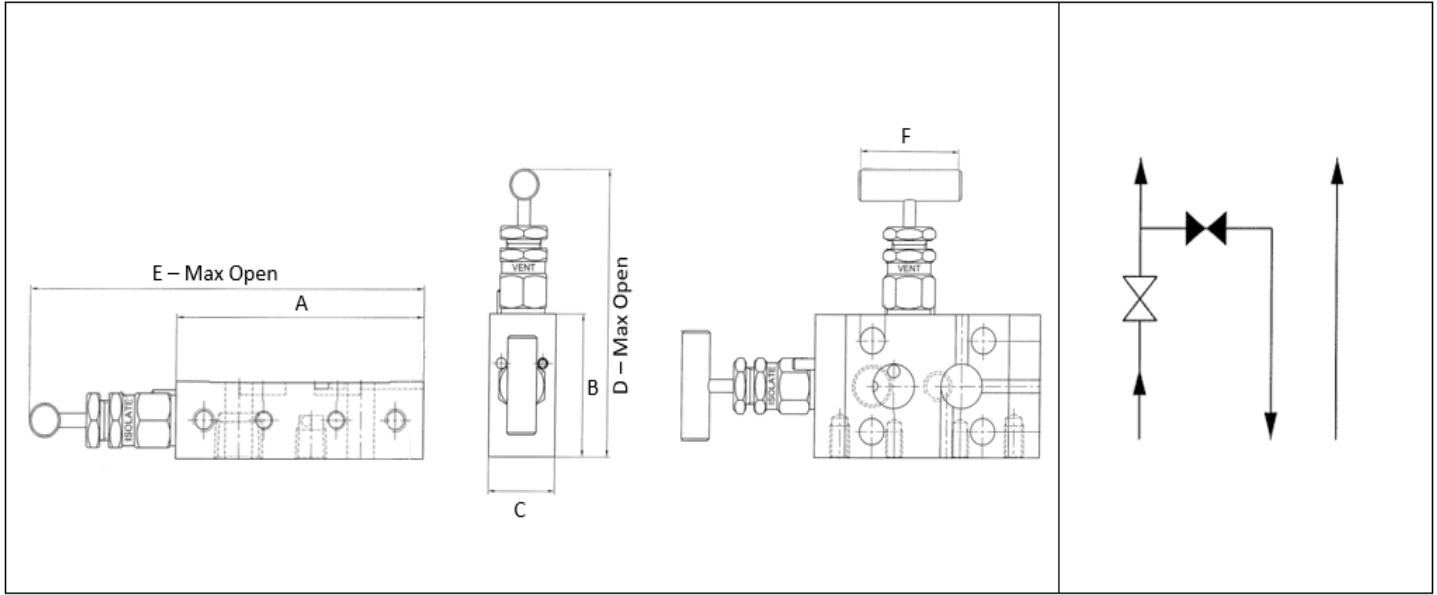


## 247 Series, Block/Bleed, Female x Flange (Coplanar®)



### Conformance Standards

NACE MR0175 / ISO 15156, NACE MR0103 / ISO 17495

CRN (Canadian Registration Number) Approved/Registered

ASTM B31.3 Process Piping, ASTM B16.34 Valves - Flanged, Threaded, and Welded End

MSS-SP-99 (ANSI)

### End Connections

|          | Process Inlet Connection  | Instrument Connection | Vent / Test                                 |
|----------|---|-----------------------|---|
| Standard | Female 1/2 NPT  | Flange, Coplanar®     | Female 1/4 NPT                              |
| Optional | Female 1/4, 3/8 NPT<br>Female BSPP "G" Thread<br>BW<br>SW<br>Custom |                       | Female 1/2 NPT<br>BSPP "G" Thread<br>Custom |

| Orifice  |                 |
|----------|-----------------|
| Standard | 5MM (0.197 in.) |
| Optional | Custom          |

| Mounting |  |
|----------|--|
| Standard | Yes (M8-6H)  |
| Optional | Other options available upon request<br>Note that body dimensions may change as a result |

| Materials of Construction |                     |   |                           |
|---------------------------|---------------------|---|---------------------------|
| Body / Bonnet             | Stem                | Standard Stem Tip   | Optional Stem Tip         |
| 316 / 316L                | Kolsterised® 316 Ti | Non-Rotating Ball, Ceramic Al <sub>2</sub> O <sub>3</sub> | Non-Rotating V-Tip, K-500 |
| Monel® 400                | Monel® K-500        | Non-Rotating Ball, Ceramic Al <sub>2</sub> O <sub>3</sub> | Non-Rotating V-Tip, K-500 |
| Hastelloy® C-276          | Hastelloy® C-276    | Non-Rotating Ball, Ceramic Al <sub>2</sub> O <sub>3</sub> | Non-Rotating V-Tip, C-276 |
| Duplex® F-51              | Duplex® F-51        | Non-Rotating Ball, Ceramic Al <sub>2</sub> O <sub>3</sub> | Non-Rotating V-Tip, F-51  |
| Super Duplex® F-53        | Super Duplex® F-53  | Non-Rotating Ball, Ceramic Al <sub>2</sub> O <sub>3</sub> | Non-Rotating V-Tip, F-53  |

| Bonnet Styles / Packing Materials <sup>1</sup>                   |                     |                                |                                 |                                  |
|--|---------------------|--------------------------------|---------------------------------|----------------------------------|
| Bonnet Style   | Stem Packing        | Pressure / 100°F (38°C)        | Pressure / Min Temp             | Pressure / Max Temp              |
| Standard   | PTFE (Packing)      | 6 kpsi (413 bar)               | 6 kpsi (413 bar)/-76°F (-60°C)  | 3 kpsi (200 bar)/446°F 230°C     |
|  | Viton® FKM (O-Ring) | 6 kpsi (413 bar)               | 6 kpsi (413 bar)/-4°F (-20°C)   | 3 kpsi (200 bar) 392°F/ 200°C    |
|  | Grafoil (Packing)   | 6 kpsi (413 bar)               | 6 kpsi (413 bar)/-76°F (-60°C)  | 3 kpsi (200 bar)/752°F 400°C     |
|  | Custom              | -                              | -                               | -                                |
| 10,000 PSI   | PTFE (Packing)      | 10 kpsi (690 bar)              | 10 kpsi (413 bar)/-76°F (-60°C) | 3 kpsi (200 bar)/446°F 230°C     |
|  | Viton® FKM (O-Ring) | 10 kpsi (690 bar)              | 10 kpsi (413 bar)/-4°F (-20°C)  | 3 kpsi (200 bar) 392°F/ 200°C    |
|  | Grafoil (Packing)   | 10 kpsi (690 bar)              | 10 kpsi (413 bar)/-76°F (-60°C) | 3 kpsi (200 bar) / 400°C         |
|  | Custom              | -                              | -                               | -                                |
| Fugitive Emissions<br>Shell FET 77/312<br>ISO 15848-2<br>TA Luft | PTFE (Packing)      | 6 kpsi (413 bar)               | 6 kpsi (413 bar)/-76°F (-60°C)  | 3 kpsi (200 bar)/446°F 230°C     |
|  | Viton® FKM (O-Ring) | 6 kpsi (413 bar)               | 6 kpsi (413 bar)/-4°F (-20°C)   | 3 kpsi (200 bar) 392°F/ 200°C    |
|  | Custom              | -                              | -                               | -                                |
| Fire Safe<br>API 607/BS 6755 Part 2                              | Supergraf Premier®  | 6 kpsi (413 bar)/-76°F (-60°C) | 6 kpsi (413 bar)/-76°F (-60°C)  | 3,000 psi (200 bar) /842°F 450°C |

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#### Additional Options

Oxygen Clean per ASTM G-93

Anti-Tamper Bonnets

Locking Device Bonnets

Panel Mounting Bonnets

ASTM B31.1 Power Piping (Bolted Standard Bonnet)

Various Packing Materials Including: EPDM, PEEK™, Silicon Elastomer, etc.

Various Body Construction Materials

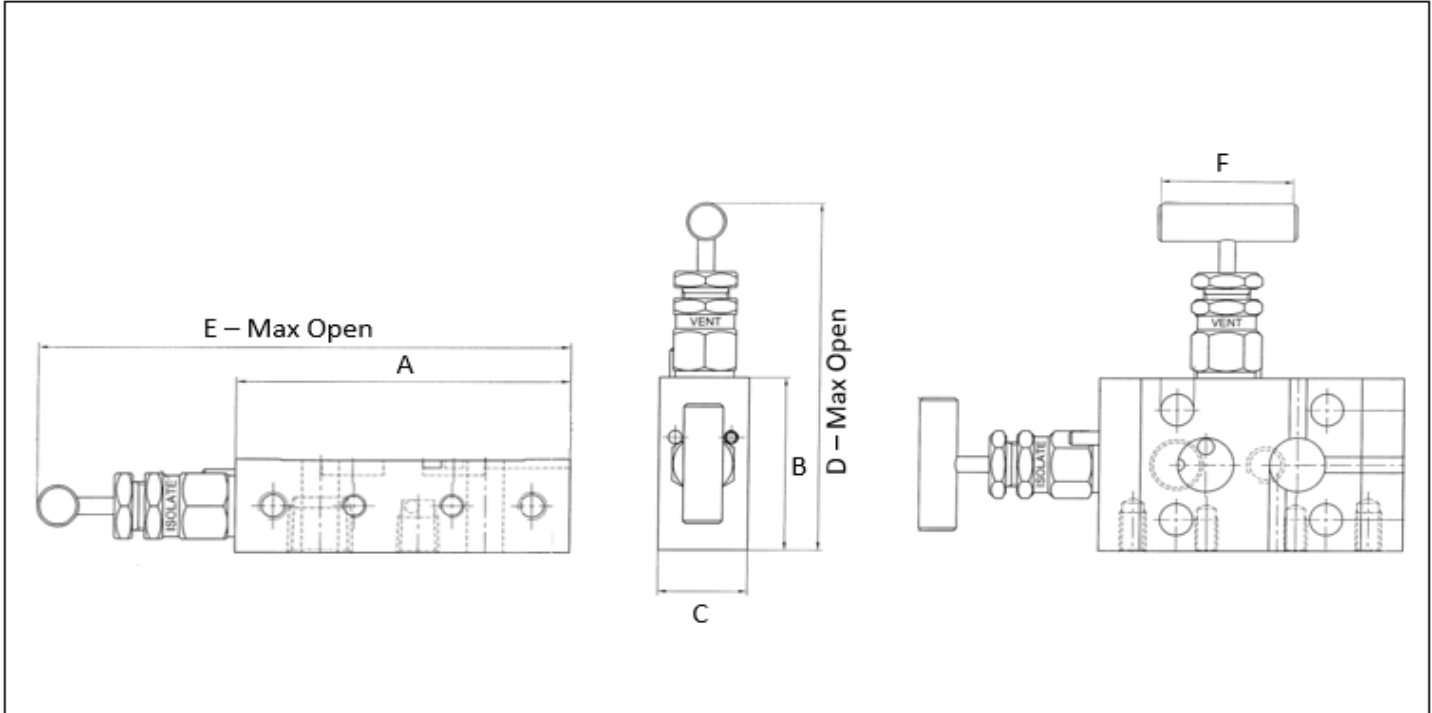
Various End Connections Including: BSPT, Two Ferrule Integral connection, Single Ferrule Integral Connection

#### Footnotes

1. Packing material ratings based on manufacturer's specifications

## Dimensional Measurements

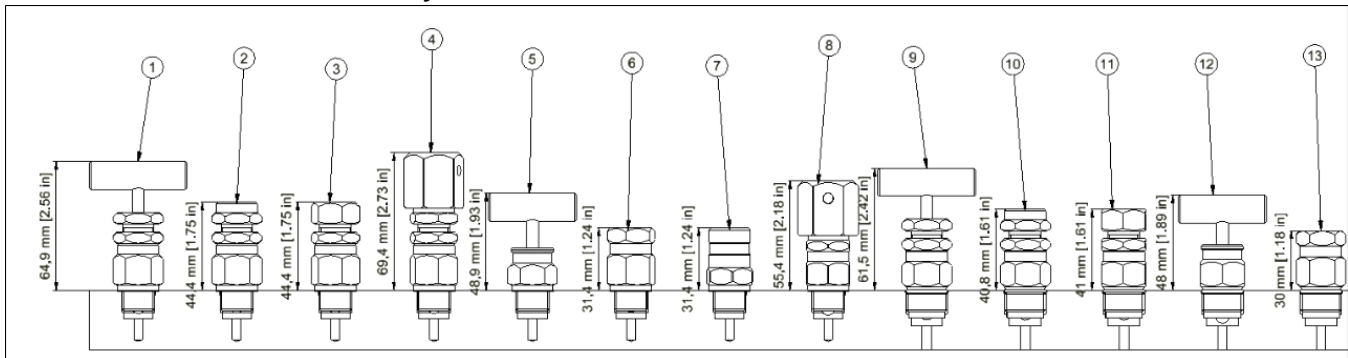
Drawing: 247 Series, Standard Packing Style Bonnet



| End Connection Size                   | Pressure Rating  | A   |      | B  |      | C  |      | D   |      |
|---------------------------------------|------------------|-----|------|----|------|----|------|-----|------|
|                                       |                  | mm  | in   | mm | in   | mm | in   | mm  | in   |
| 1/4", 1/2", 3/8" - Flange (Coplanar®) | 413 bar / 6 kpsi | 110 | 4.33 | 65 | 2.56 | 32 | 1.26 | 130 | 5.12 |

\*Drawing Upon Request

### Refer to Bonnet Style Dimensional Reference List for Detailed Measurements



## Bonnet Style Dimensional Reference List

| Key | Bonnet Style  | Max Height from Body |
|-----|---|----------------------|
| 1   | Standard Packing Bonnet   | 2.56 in (64.9 mm)    |
| 2   | Standard Packing Bonnet, Anti-Tamper Vent                           | 1.75 in (44.4 mm)    |
| 3   | Standard Packing Bonnet, Anti-Tamper Equalize                       | 1.75 in (44.4 mm)    |
| 4   | Standard Packing Bonnet, Anti-Tamper, Locking Device                | 2.73 in (69.4 mm)    |
| 5   | Standard O-Ring Bonnet  | 1.93 in (48.9 mm)    |
| 6   | Standard O-Ring Bonnet, Anti-Tamper Vent                            | 1.24 in (31.4 mm)    |
| 7   | Standard O-Ring Bonnet, Anti-Tamper Equalize                        | 1.24 in (31.4 mm)    |
| 8   | Standard O-Ring Bonnet, Anti-Tamper, Locking Device                 | 1.28 in (55.4 mm)    |
| 9   | Fugitive Emissions Bonnet, Packing Style                            | 2.42 in (61.5 mm)    |
| 10  | Fugitive Emission Bonnet, Packing Style, Anti-Tamper Vent           | 1.61 in (40.8 mm)    |
| 11  | Fugitive Emissions Bonnet, Packing Style, Anti-Tamper Equalize      | 1.61 in (40.8 mm)    |
| 12  | Fugitive Emissions Bonnet, O-Ring Style                             | 1.89 in (48.0 mm)    |
| 13  | Fugitive Emissions Bonnet, O-Ring Style, Anti-Tamper Vent, Equalize | 1.18 in (30.0 mm)    |

