TESCOM DH-Series single-stage regulator provides a compact size with high flow capability from 5-200 SCFM / 142-5663 SLPM. The large diaphragm and balanced main valve design provide low droop (larger usable flow range) than competitive designs. Available in spring or dome loaded configurations.

**Applications**
- Purging, blanketing, high flow inerting, heat treating, and shielding gases
- Performs well at very low pressure differentials such as dewar-supplied processes
- Multi-drop breathing air stations

**Features and Benefits**
- Available in 316 Stainless Steel or Brass
- Accurately regulates pressure up to 250 psig / 17.2 bar for spring load, 300 psig / 20.7 bar for dome load and 500 psig / 34.5 bar for air load (optional)
- Five outlet pressure ranges
- Choice of spring load or dome load (air load is optional)
- Low droop
- Panel mounting is available
- Flanged end connections available

**Specifications**

**OPERATING PARAMETERS**
Pressure rating per criteria of ANSI/ASME B31.3

- **Maximum Inlet Pressure**
  500 psig / 34.5 bar

- **Outlet Pressure Ranges**
  0-20, 0-50, 0-100, 0-150, 0-250 psig
  0-1.4, 0-3.4, 0-6.9, 0-10.3, 0-17.2 bar

- **Design Proof Pressure**
  150% of rated inlet

- **Leakage**
  Bubble-tight

- **Ambient Operating Temperature**
  -4°F to 165°F / -20°C to 74°C

- **Flow Capacity**
  \( C_v = 5.0 \)

**MEDIA CONTACT MATERIALS**

- **Body, Back-cap**
  316 Stainless Steel or Brass

- **Bonnet**
  303 Stainless Steel or Brass

- **Diaphragm**
  Ethylene Propylene or Nylon Reinforced, PTFE

- **Seal**
  - **Main Valve**
    Nitrile, Buna-N, Ethylene Propylene, FFKM, Perfluoroelastomer (Chemraz®), FKM (Viton®-A)
  - **Vent**
    PCTFE, Polyimide (Vespel®)

- **O-Rings**
  Nitrile, Buna-N, E.P., FFKM, Perfluoroelastomer (Chemraz®), FKM (Viton®-A)

- **Remaining Parts**
  300 Series Stainless Steel, Nitronic 60

**OTHER**

- **Cleaning**
  CGA 4.1 and ASTM G93

- **Weight**
  - **Stainless Steel**: 15 lbs / 6.8 kg
  - **Brass**: 16 lbs / 7.3 kg

_Vespel® and Viton® are registered trademarks of E.I. du Pont de Nemours and Company. Gylon® is a registered trademark of Garlock, Inc. Chemraz® is a registered trademark of Greentweed._
DH SERIES

DH Series Regulator Drawings

All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets
DH Series Regulator with Flanges Drawing

All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets
DH SERIES

DH Series Regulator Flow Charts

For more information on how to read flow curves, please refer to the Flow Curves and Calculations document (debul2007x012) in the TESCOM catalog or on www.tescom.com.
DH Series Regulator Flow Charts

For more information on how to read flow curves, please refer to the Flow Curves and Calculations document (debu2007x012) in the TESCOM catalog or on www.tescom.com.
### Threaded End Connector Part Number Selection:

<table>
<thead>
<tr>
<th>BASIC SERIES</th>
<th>LOAD TYPE</th>
<th>BODY, BONNET, BACK-CAP MATERIAL</th>
<th>OUTLET PRESSURE</th>
<th>O-RING AND VALVE SEAT MATERIAL</th>
<th>DIAPHRAGM MATERIAL</th>
<th>VENT SEAT MATERIAL</th>
<th>OPTIONAL ITEMS</th>
<th>PORTING CONFIGURATION</th>
<th>INLET, OUTLET, GAUGE PORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH H –</td>
<td>Spring Loaded, Handknob</td>
<td>1 – Brass</td>
<td>0 – 0-20 psig</td>
<td>B – Nitrile, Buna-N</td>
<td>E – E.P. Nylon</td>
<td>C – CCL</td>
<td>A – No gauge ports</td>
<td>H – 1/2&quot; NPTF</td>
<td>1 – RF</td>
</tr>
<tr>
<td>W –</td>
<td>Spring Loaded, Wrench</td>
<td>6 – 316 Stainless Steel</td>
<td>0-1.4 bar</td>
<td>Nitrile, Buna-N-9 Durometer</td>
<td>Reinforced</td>
<td>9 – None</td>
<td>2 – 2 gauge ports at 60°</td>
<td>3 – 3/4&quot; NPTF</td>
<td>3 – 150°</td>
</tr>
<tr>
<td>D –</td>
<td>Dome Loaded</td>
<td>5 – 0-150 psig</td>
<td>0-6.9 bar</td>
<td>E.P. O-Ring</td>
<td>G – PTFE</td>
<td>4 – 1&quot; NPTF</td>
<td>9 – None</td>
<td>F – 1/4&quot; NPTF (for gauge only)</td>
<td>41 – 600°</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – 0-250 psig</td>
<td>0-10.3 bar</td>
<td>E.P. 80 Seat</td>
<td></td>
<td>1 – 1 outlet gauge at 90°</td>
<td>9 – None</td>
<td>Y – 1/4&quot; HPIC (for gauge only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – 0-300 psig</td>
<td>0-20.7 bar</td>
<td>Chemraz®</td>
<td></td>
<td>1 – 2 gauge ports at 90°</td>
<td></td>
<td>L – 2 gauge ports at 90°</td>
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<tr>
<td></td>
<td></td>
<td>(Dome Load only)</td>
<td>(Dome Load</td>
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</tr>
</tbody>
</table>

** Flanged End Connector Part Number Selection:

<table>
<thead>
<tr>
<th>BASIC SERIES</th>
<th>BODY, PIPE, FLANGE, BONNET BACK-CAP MATERIAL</th>
<th>OUTLET PRESSURE</th>
<th>O-RING AND VALVE SEAT MATERIAL</th>
<th>OPERATING TEMPERATURE</th>
<th>DIAPHRAGM MATERIAL</th>
<th>VENT SEAT MATERIAL</th>
<th>GAUGE PORT OPTIONS 1/4&quot; NPT</th>
<th>FLANGE SIZE</th>
<th>FLANGE CLASS</th>
<th>FLANGE FACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHW 6 –</td>
<td>316 SST</td>
<td>0 – 0-20 psig</td>
<td>B – Nitrile, Buna-N</td>
<td>-20 to 165°F *</td>
<td>E – E.P. Nylon</td>
<td>C – PCTFE</td>
<td>No gauge ports</td>
<td>3 – 1”</td>
<td>11 – 150°</td>
<td>1 – RF</td>
</tr>
<tr>
<td>H –</td>
<td></td>
<td>0-1.4 bar</td>
<td>Nitrile, Buna-N-9 Durometer</td>
<td>-29 to 74°C</td>
<td>Reinforced</td>
<td></td>
<td>2 – 2 gauge ports at 60°</td>
<td></td>
<td>21 – 300°</td>
<td></td>
</tr>
<tr>
<td>W –</td>
<td></td>
<td>0-3.4 bar</td>
<td>E.P. 80</td>
<td>-20 to 200°F</td>
<td></td>
<td></td>
<td>3 – 1&quot;</td>
<td></td>
<td>41 – 600°</td>
<td></td>
</tr>
<tr>
<td>D –</td>
<td></td>
<td>0-6.9 bar</td>
<td>Chemraz®</td>
<td>-29 to 93°C</td>
<td></td>
<td></td>
<td>4 – 1”</td>
<td></td>
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<td>2 – 0-100 psig</td>
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<td>5 – None</td>
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<td></td>
<td></td>
<td>0-10.3 bar</td>
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<td></td>
<td>6 – Non-Venting</td>
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<td>3 – 0-150 psig</td>
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<td>7 – Polyimide (Vespel®)</td>
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<td></td>
<td>0-17.2 bar</td>
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<td></td>
<td>8 – E.P. -20 to 200°F</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>5 – 0-250 psig</td>
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<td></td>
<td></td>
<td></td>
<td>9 – Chemraz® 75 Seat</td>
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<td></td>
<td></td>
<td>0-17.2 bar</td>
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<td></td>
<td></td>
<td></td>
<td>10 – No gauge ports</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0-17.2 bar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11 – In &amp; Out gauge ports at 60°</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Flanged End Connector Part Number Selection:

* The maximum operating temperature for PCTFE vent seat material is 148°F / 60°C

** FFKM, Perfluoroelastomer (Chemraz®)