SMD, TMD, BMD Series
Automatic Pneumatically Operated Condensate Drains
Where are Automatic Drains Used?

Gardner Denver pneumatically operated condensate drains are designed to ensure that manufacturing processes and products do not become contaminated by ensuring that liquid oil and water condensates are discharged from the compressed air stream. Drain installation is typically a part of a complete Gardner Denver air treatment system:

- Separators used on aftercoolers separate a great amount of condensate from the compressed air stream. They are normally integrated into a compressor package or are placed directly at the compressor outlet. These separators require drains which can handle very high volumes of condensate and particulate contamination.
- Receiver tanks utilize automatic drains installed beneath the tank.
- Refrigerated dryers require effective and reliable condensate removal to ensure a stable dew point and avoid liquid reentrainment in the heat exchanger sets.
- Filters utilize automatic drains to dispose of liquid oil and water which has been separated from the air stream by the coalescing filter element.

Automatic Drains Reduce Operating Costs

- Installing pneumatically operated condensate drains has several benefits for every compressed air system.
- Eliminates daily man-hours required to walk the factory and manually drain air lines and equipment.
- Eliminates daily man-hours required every morning to purge the air lines of condensate before work begins.
- Prevents the receiver tank from filling up with condensate and causing the compressor to short cycle.
- Saves on wasted compressed air created when valves are cracked open to purge the air lines of condensate.
- Ensures timely and effective condensate removal during working hours to protect end products and process from contamination.
## Data & Figures

### SMD Series Level Actuated, Pneumatically Operated Drains
- Economical drain for light to medium duty service
- Discharges 0.4 pt. (20 cc) per operation (0.3 gal/hour – 1.2 litre/hour)
- Maximum working pressures to 175 psig (12 bar)
- SMD10T and SMD12T Models offer top inlet connection, SMD10B and SMD12B Models offer convenient bottom inlet connection
- No air-loss level actuated design which operates on demand. Discharge port closes before any compressed air is lost. Air powered piston for positive opening and closing of discharge port. Discharge port protected from clogging by a built-in stainless steel screen.

### TMD and BMD Series Level Actuated, Pneumatic Drains
- Rugged drain for heavy duty service and heavily contaminated condensate.
- Maximum working pressures to 300 psig (21 bar). Models for 500 psig (35 bar) are available.
- Models with condensate discharge rates of 3–24 gallons/hour (11–91 litres/hour).
- TMD Models offer top inlet connection, BMD Models offer convenient bottom inlet connection.
- No air-loss level actuated design which operates on demand. Discharge port closes before any compressed air is lost. Air powered piston for positive opening and closing of discharge port. Large discharge port prevents clogging.

### Sizing Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Discharge Per Operation Pints (CC)</th>
<th>Normal Capacity (One Cycle Per Minute) Gal/Hr (CC/Min)</th>
<th>Materials of Construction</th>
<th>Min/Max Operating Pressure PSIG (KGF/CM²)</th>
<th>Min/Max Operating Temperature °F (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMD10T²</td>
<td>0.04 (20)</td>
<td>0.3 (1200)</td>
<td>Polycarbonate housing c/w bowl guard</td>
<td>20–150 (1.4–10.6)</td>
<td>35–120 (2–69)</td>
</tr>
<tr>
<td>SMD10B²</td>
<td></td>
<td></td>
<td>Polycarbonate mechanical parts Buna N Seals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMD12T²</td>
<td></td>
<td></td>
<td>Epoxy coated Zinc housing w/c sight glass</td>
<td>20–175 (1.4–12.3)</td>
<td></td>
</tr>
<tr>
<td>SMD12B²</td>
<td></td>
<td></td>
<td>Derlin mechanical parts Viton Seals for synthetic lubricants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMD13² &amp; BMD13²</td>
<td>0.4 (190)</td>
<td>3 (11.4)</td>
<td>Carbon steel housing: stainless steel, brass, derlin, nylon mechanical parts: Viton Seals All stainless steel models optional³</td>
<td>10–300 (0.7–21)</td>
<td>35–150 (2–66)</td>
</tr>
<tr>
<td>TMD13HP² &amp; BMD13HP²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMD15² &amp; BMD15²</td>
<td>3.2 (1514)</td>
<td>24 (90.8)</td>
<td></td>
<td>10–500 (0.7–35)</td>
<td></td>
</tr>
</tbody>
</table>

1. Top Connection. 2. Bottom Connection. 3. Drains are designated to operate at one discharge per minute for one year before rebuilding is required. Maximum capacity is six discharges per minute. 4. Stainless steel models available. Materials of 304SS housing, stainless steel mechanical parts and Viton seals. To order add “S” to model number (e.g. TMD13S or BMD13HPS)

### Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>A in (mm)</th>
<th>B in (mm)</th>
<th>Inlet</th>
<th>Drain</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMD10T² &amp; SMD12T²</td>
<td>3.75 (95)</td>
<td>6.375 (162)</td>
<td>1/2“ Female</td>
<td>3/16“ Tube</td>
</tr>
<tr>
<td>SMD10B² &amp; SMD12B²</td>
<td>3.75 (95)</td>
<td>7 (178)</td>
<td>3/8“ Female</td>
<td>3/8“ Female</td>
</tr>
<tr>
<td>TMD13³ &amp; BMD13²</td>
<td>7 (178)</td>
<td>8.5 (216)</td>
<td>3/4“ Female</td>
<td>1/4“ Female</td>
</tr>
<tr>
<td>TMD15³ &amp; BMD15²</td>
<td>7 (178)</td>
<td>13.75 (349)</td>
<td>3/4“ Female</td>
<td>1/4“ Female</td>
</tr>
</tbody>
</table>

![SMD10T & SMD12T](image1)  ![SMD10B & SMD12B](image2)  ![TMD13 & BMD13](image3)  ![TMD15 & BMD15](image4)
Other Innovative Products

FIL Series
High Efficiency Filters
A full range of filters 20–21,250 cfm; coalescing, particulate, and activated carbon for the removal of water, oil, and particulates from compressed air.

DS2 Series
Evacuator Drain Valves
A full family of zero air loss, energy efficient demand drains. Ruggedly designed to effectively and reliably prevent moisture damage to dryers, air tools, gauges, and other critical components.

RNC Series
Refrigerated Dryers
A full line of high quality refrigerated dryers with features and benefits unmatched by the competition. Designed to produce dew points as low as 38°F in compressed air.

DGH Series
Desiccant Dryers
A complete line of desiccant dryers for the removal of water vapor in compressed air to dew points as low as -100°F.