CONSTRUCTION (DC3S)

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- **Body** (Ductile Cast Iron)
- **Screen** (DN15-50)* (Stainless Steel)
- **Separator** (Stainless Steel)
- **Float** (Stainless Steel)
- **Trap Valve Seat** (Stainless Steel)

* Screen for sizes DN 65-100 is in Trap Cover

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**FEATURES AND BENEFITS**

1. **Cyclone-Effects Separator:**
   - Provides condensate separation efficiency as high as 98%.
   - Improves productivity and product quality with dry, high-quality steam/air.

2. **Free-Float Trap:** (DC7 needs a separate trap)
   - Continuously discharges condensate as it is separated.
   - Provides a complete seal, even under no load conditions, with its precision ground spherical float and positive three-point seating.

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**OPERATION**

1. Fluid enters the inlet of the separator, and a complex series of fins changes the steam or air flow into a high-speed cyclone flow, separating even mist-like condensate.
2. The separated condensate accumulates at the bottom, lifting the float off the valve seat and discharging condensate continuously.

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**FLOW VELOCITY AND EFFICIENCY**

<table>
<thead>
<tr>
<th>Steam Flow Velocity (m/sec)</th>
<th>Condensation Separation Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>20</td>
<td>98</td>
</tr>
<tr>
<td>30</td>
<td>96</td>
</tr>
<tr>
<td>40</td>
<td>94</td>
</tr>
</tbody>
</table>

Accuracy: ±2%; Condensation: 40–50 kg/h

Separation rate (%) is given as:

\[
\text{Separation Rate} = \frac{\text{Quantity of condensate discharged}}{\text{Quantity of incoming condensate}} \times 100
\]

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**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Connection</th>
<th>Sizes</th>
<th>Body Material</th>
<th>Orifice No. (Built-in Trap)</th>
<th>Max. Operating Pressure (barg) PMO</th>
<th>Max. Differential Pressure (bar) ∆PMX (Built-in Trap)</th>
<th>Max. Operating Temperature (°C) TMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC3S</td>
<td>Steam Separator Trap</td>
<td>Screwed ½&quot;, ¾&quot;, 1&quot;</td>
<td>DN 15, 20, 25, 40, 50, 65, 80, 100</td>
<td>Ductile Cast Iron</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>220</td>
</tr>
<tr>
<td>DC3A</td>
<td>Air Separator Trap</td>
<td>Screwed ½&quot;, ¾&quot;, 1&quot;</td>
<td>DN 15, 20, 25, 40, 50, 65, 80, 100</td>
<td>Cast Iron</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>DC7</td>
<td>Steam/Air Separator</td>
<td>Screwed ½&quot;, ¾&quot;, 1&quot;, 1⅝&quot;, 2&quot;</td>
<td>DN 15, 20, 25, 40, 50</td>
<td>Stainless Steel</td>
<td>–</td>
<td>25</td>
<td>–</td>
<td>300</td>
</tr>
</tbody>
</table>

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS):

- Maximum Allowable Pressure (barg) PMO: 13 (DC3A-Screwed), 21 (DC3A-Flanged, DC3S), 25 (DC7)
- Maximum Allowable Temperature (°C) TMA: 200 (DC3A-Screwed), 220 (DC3A-Flanged, DC3S), 300 (DC7)

To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

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**CAUTION**

To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

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