Airfin Coolers provide a reliable way to reduce the operating temperature of a mechanical seal without the added cost of cooling water.

Airfin Coolers from Flowserve are easy to install and clean, and have lower maintenance and operating costs. Available in natural-convection and forced-air designs, Airfin Coolers use atmospheric air as the coolant, eliminating the need for cooling water. They are constructed with corrosion-resistant materials for use in most chemical services.

Features and benefits

- Lower operating costs with finned-tube air-cooling technology that eliminates water treatment and disposal
- Improve reliability with water-free cooling design, which prevents accidental shutoff and winter freeze-up
- Minimize installation and maintenance costs with unit design that requires less piping and is not as susceptible to fouling

Three models available

- **625 NC** — Natural convection model
  - Code WCA14640733
- **625 FC Electric Motor** — Forced convection model with 0.25 kW (1/3 hp) electric motor
  - One-phase motor: Code WCA18856933
  - Three-phase motor: Code WCA14020233
- **625 FC Air Motor** — Forced convection model with 0.25 kW (1/3 hp) motor with 4.1 bar (60 psi) air
  - Code WCA26748333

Operating parameters

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>psig</th>
<th>barg</th>
</tr>
</thead>
<tbody>
<tr>
<td>35°C (100°F)</td>
<td>2300</td>
<td>160</td>
</tr>
<tr>
<td>95°C (200°F)</td>
<td>2050</td>
<td>140</td>
</tr>
<tr>
<td>150°C (300°F)</td>
<td>1800</td>
<td>125</td>
</tr>
<tr>
<td>205°C (400°F)</td>
<td>1650</td>
<td>115</td>
</tr>
<tr>
<td>315°C (600°F)</td>
<td>1400</td>
<td>95</td>
</tr>
<tr>
<td>425°C (800°F)</td>
<td>1200</td>
<td>80</td>
</tr>
</tbody>
</table>

- Temperature to: 425°C (800°F)
- Effective cooling area: 2.5 m² (26.8 ft²)

Materials of construction

- Tube: 304 stainless steel
- Fins: Carbon steel
- Frame: Painted carbon steel with protective shroud
- Blower: Galvanized steel
- Connections: 316 stainless steel, 0.500 NPT female
Performance curves

There are two (2) curves for each model of Airfin Cooler: one for heat transfer fluids and one for water. Select the applicable performance curve* for your operating conditions.

Example: Model 625 FC, Heat Transfer Fluid at 1750 rpm

Step 1: Enter the graph on the horizontal axis at the “Temperature of the Product Entering Cooler: assume 200°C (400°F).

Step 2: Move vertically until you intersect the curve for the desired “Temperature of the Product Exiting the Cooler”; assume to be 120°C (250°F).

Step 3: Move horizontally toward the vertical axis, “Product Flow Rate”. The maximum product flow rate is 3.8 Lpm (1 gpm). Size and install an orifice to control the rate of flow.

*Curves are based on 35°C (100°F) ambient temperature. If the product inlet or ambient temperature exceeds those shown on the graph, please contact your Flowserve representative.