COMPRESSED AIR COOLING | Air AB Series

COPPER TUBE CONSTRUCTION

Features
- Compressed Air and Gas Aftercoolers
- For Water to Air Cooler
- All Brass Hubs and Shell Assemblies: Reduce or Eliminate Galvanic and Other Types of Corrosion
- Copper Nickel Tubes Available for Sea Water Service

Materials
- Tubes: Copper
- Shell: Brass
- End Hubs: Brass
- End Bonnets: Cast Iron
- Baffles: Brass
- Mounting Brackets (optional): Steel
- Gaskets: Nitrile Rubber
- Nameplate: Aluminum Foil

Ratings
- Operating Pressure
  - Tubes: 250 PSI
  - Shell: 250 PSI
- Operating Temperature: 350° F

Unit Coding

How to Order

<table>
<thead>
<tr>
<th>Model Series</th>
<th>Model Size Selected</th>
<th>Baffle Spacing</th>
<th>Tube Diameter Code</th>
<th>Tubesside Passes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td></td>
<td>A - 1.125</td>
<td>4 - 1/4&quot;</td>
<td>0</td>
</tr>
</tbody>
</table>
Thermal Transfer Aftercoolers can be mounted in either of the positions shown. Separators should be used as shown. Consult factory for separator recommendations.

**Dimensions**

![Diagram of Dimensions](image)

**Piping Diagrams**

Thermal Transfer Aftercoolers can be mounted in either of the positions shown. Separators should be used as shown. Consult factory for separator recommendations.

**Capacity Selection**

<table>
<thead>
<tr>
<th>Model</th>
<th>DIA</th>
<th>B</th>
<th>C</th>
<th>D*</th>
<th>E*</th>
<th>F*</th>
<th>G*</th>
<th>H*</th>
<th>J NPT</th>
<th>K NPT</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P NPT</th>
<th>Q NPT</th>
<th>Weight (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB-403-A4-0</td>
<td>2.12</td>
<td>25.62</td>
<td>3.50</td>
<td>29.06</td>
<td>1.94</td>
<td>2.62</td>
<td>1.76</td>
<td>.41 Dia</td>
<td>—</td>
<td>50</td>
<td>1.72</td>
<td>42.36</td>
<td>3.87</td>
<td>1.50</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>AB-404-A4-0</td>
<td>3.46</td>
<td>38.06</td>
<td>4.06</td>
<td>47.06</td>
<td>3.62</td>
<td>5.25</td>
<td>3.00</td>
<td>.44 x 1.00</td>
<td>1.00</td>
<td>2.69</td>
<td>50.40</td>
<td>3.70</td>
<td>2.50</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AB-405-B4-0</td>
<td>4.36</td>
<td>43.00</td>
<td>6.25</td>
<td>48.38</td>
<td>4.75</td>
<td>7.50</td>
<td>5.00</td>
<td>.44 x 0.88</td>
<td>1.00</td>
<td>3.44</td>
<td>62.25</td>
<td>4.88</td>
<td>3.00</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AB-705-B4-0</td>
<td>5.12</td>
<td>51.50</td>
<td>7.38</td>
<td>57.62</td>
<td>4.00</td>
<td>6.75</td>
<td>4.00</td>
<td>(2) .38</td>
<td>1.00</td>
<td>3.06</td>
<td>59.60</td>
<td>4.05</td>
<td>3.00</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AB-1006-B6-0</td>
<td>6.12</td>
<td>50.50</td>
<td>8.81</td>
<td>64.38</td>
<td>5.00</td>
<td>8.62</td>
<td>7.00</td>
<td>.44 x 1.00</td>
<td>1.00</td>
<td>3.49</td>
<td>71.62</td>
<td>6.62</td>
<td>5.00</td>
<td>259</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AB-1206-B6-0</td>
<td>8.00</td>
<td>58.60</td>
<td>12.13</td>
<td>78.38</td>
<td>5.00</td>
<td>9.62</td>
<td>8.00</td>
<td>(6) .38</td>
<td>1.50</td>
<td>4.39</td>
<td>80.62</td>
<td>6.92</td>
<td>5.00</td>
<td>270</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AB-1606-C6-0</td>
<td>9.60</td>
<td>67.60</td>
<td>17.38</td>
<td>98.38</td>
<td>5.00</td>
<td>10.62</td>
<td>9.00</td>
<td>(2) .38</td>
<td>1.50</td>
<td>5.00</td>
<td>88.62</td>
<td>7.82</td>
<td>5.00</td>
<td>315</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Selection Example**

**Specified**

Two stage compressor with a 340 SCFM air delivery at 100 psig and a 250°F discharge temperature. Maximum allowable pressure loss is 2 psi. Water flow rate to be determined.

**Solution**

**STEP 1**

From the 2-stage compressor column select model AB-1006-B6-0 with 440 SCFM capacity.

**STEP 2**

To determine △ P: Read column to right of SCFM capacity selected.

△ P = 0.3 PSI

**STEP 3**

Water flow rate required

340 SCFM x .03 = 10.2 GPM

*Based on ambient air at 80°F, 14.7 psia, and 50% relative humidity. Compressed air cooled to within 15°F of inlet water temperature. Water flow rate 3 GPM per 100 SCFM air flow. For single stage compressor type, 300°F inlet, use 2-stage SCFM capacities with a 15% reduction.

**NOTE:** Mounting brackets are optional.