Compressed Air Cooling Air AB Series

COPPER TUBE CONSTRUCTION

Performance Notes
- 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
- Gaskets: Nitrile rubber
- Nameplate: Aluminum foil
- Mounting Brackets (optional): Steel

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

Unit Coding
AB - 403 - A 4 - 0 - MB

How to Order

<table>
<thead>
<tr>
<th>AB</th>
<th>Model Size Selected</th>
<th>Baffle Spacing</th>
<th>Tube Diameter Code</th>
<th>Tubeside Passes</th>
<th>Mounting Brackets</th>
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<td>403</td>
<td>A - 1.25</td>
<td>4 - 1/4&quot; (400 &amp; 700 models only)</td>
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<td>404</td>
<td>B - 2.25</td>
<td>6 - 3/8&quot; (1000, 1200 &amp; 1600 models only)</td>
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- AB Model Series
- 403, 404, 405, 705, 1006, 1206, 1207, 1606, 1607, 1608
- A, B, C, D: Baffle Spacing Codes
- 4, 6: Tube Diameter Code Options
- 0: Blank, MB: Optional Mounting Brackets
### Dimensions

**Model**
- **AB-403-A4-0**: 2.12, 25.62, 3.50, 29.06, 1.94, 2.62, 1.76, .41 Dia., —, .50, 1.72, 33.36, 3.87, (4), .50, 1.50, 13 LBS
- **AB-404-A4-0**: 2.12, 34.62, 3.50, 38.06, 1.94, 2.62, 1.76, .41 Dia., —, .50, 1.72, 42.36, 3.87, (4), .50, 1.50, 16 LBS
- **AB-405-B4-0**: 2.12, 43.62, 3.50, 47.06, 1.94, 2.62, 1.76, .41 Dia., —, .50, 1.72, 51.36, 3.87, (4), .50, 1.50, 18 LBS
- **AB-705-B4-0**: 3.66, 43.62, 3.50, 47.06, 1.94, 2.62, 1.76, .41 Dia., —, .50, 1.72, 51.36, 3.87, (4), .50, 1.50, 18 LBS
- **AB-1006-B6-0**: 5.12, 51.50, 7.38, 57.62, 4.00, 6.75, 4.00, .44 x 100, (6), .38, 1.50, 3.06, 59.60, 4.05, (4), .50, 3.00, 40 LBS
- **AB-1206-C6-0**: 6.12, 50.50, 8.81, 58.38, 4.75, 7.50, 5.00, .44 x 100, (6), .38, 1.50, 3.06, 62.22, 4.88, (4), .50, 3.00, 150 LBS
- **AB-1207-C6-0**: 6.12, 59.60, 8.81, 66.38, 4.75, 7.50, 5.00, .44 x 100, (6), .38, 2.00, 3.44, 69.25, 4.88, (4), .50, 3.00, 270 LBS
- **AB-1606-C6-0**: 8.00, 49.60, 12.13, 58.38, 6.50, 8.62, 7.00, .44 x 100, (6), .38, 3.00, 4.39, 71.62, 6.52, (4), .50, 5.00, 259 LBS
- **AB-1607-D6-0**: 8.00, 58.60, 12.13, 67.38, 6.50, 8.62, 7.00, .44 x 100, (6), .38, 3.00, 4.39, 71.62, 6.52, (4), .50, 5.00, 270 LBS
- **AB-1608-D6-0**: 8.00, 67.60, 12.13, 76.38, 6.50, 8.62, 7.00, .44 x 100, (6), .38, 3.00, 4.39, 71.62, 6.52, (4), .50, 5.00, 315 LBS

**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.
- To determine $\Delta P$: Read column to right of SCFM capacity selected. $\Delta P = 0.3$ PSI
- Water flow rate required $340 \text{ SCFM} \times .03 = 10.2 \text{ GPM}$

**Piping Diagram**

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