CC Series Condensate Coolers
Drain Tempering Service

Description
Armstrong’s Condensate Cooler is a device that mixes hot condensate or hot water with a cold water supply to reduce the temperature to acceptable discharge drain temperatures as required by city and state codes. It is a pre-assembled package that is suitable for any plumbing system. When hot condensate or hot water is drained into the condensate cooler body, the tempering valve opens and allows cold water to enter the chamber and mix with hotter liquid, cooling it to a preset temperature level of 135°F (57°C) or to a desired field set temperature.

Capacities (Total of condensate and cooling water combined)
CC-5  5 gpm (19 lpm)
CC-12 12 gpm (45 lpm)
CC-25  25 gpm (95 lpm)
CC-40  40 gpm (151 lpm)

To determine condensate load, use the following formula:
\[
\text{Model} = \frac{(B - C)}{(H - C)} \times (B - C)
\]

Where:
- \( B \) = Set point of tempering valve (preset to 135°F)
- \( C \) = Cold water temperature
- \( H \) = Hot water temperature or condensate temperature

Example:
\[
\frac{(135 - 50)}{(180 - 50)} \times 5 \text{ (CC-5)} = 3.25^*
\]

3.25 gal x 8.33 lbs per gallon x 60 = 1,624 lbs per hour

* In the example, Model CC-5 (5 gpm) can handle 3.25 gpm of 180°F liquid. If cold water temperature or discharge temperature changes, the capacity will change.

Tempered Condensate Range
Factory preset 135°F (57°C)
Field adjustable range 115 to 180°F (46 to 82°C)
Maximum cold water pressure 150 psig (10 bar)

Materials
- Body:
  - CC-5 and CC-12  ASTM A48 cast iron
  - CC-25 and CC-40  Carbon steel
- Pipe and Fittings:
  - Malleable iron
- Body (Controller): Brass
- Sensing Bulb: Bronze

For a fully detailed certified drawing, refer to:
- CC-5 CDY #1000
- CC-12 CDY #1073
- CC-25 CDY #1091
- CC-40 CDY #10923

<table>
<thead>
<tr>
<th>Physical Data</th>
<th>CC-5</th>
<th>CC-12</th>
<th>CC-25</th>
<th>CC-40</th>
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</thead>
<tbody>
<tr>
<td>Model</td>
<td>in</td>
<td>mm</td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td>Vent</td>
<td>3/4</td>
<td>20</td>
<td>1-1/2</td>
<td>40</td>
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<tr>
<td>Hot Condensate Inlet</td>
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<td>20</td>
<td>1-1/2</td>
<td>40</td>
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<tr>
<td>Tempered Condensate Outlet</td>
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<td>32</td>
<td>1-1/2</td>
<td>40</td>
</tr>
<tr>
<td>Cold Water Inlet</td>
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<td>10</td>
<td>3/4</td>
<td>20</td>
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<tr>
<td>&quot;H&quot;</td>
<td>13</td>
<td>330</td>
<td>23</td>
<td>584</td>
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<td>&quot;W&quot;</td>
<td>12-1/2</td>
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<td>14-3/16</td>
<td>361</td>
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<tr>
<td>&quot;A&quot;</td>
<td>10-13/16</td>
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<td>20-5/16</td>
<td>516</td>
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<tr>
<td>&quot;C&quot;</td>
<td>6-1/2</td>
<td>165</td>
<td>11-7/8</td>
<td>302</td>
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<td>&quot;D&quot;</td>
<td>11</td>
<td>279</td>
<td>11</td>
<td>279</td>
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<tr>
<td>Weight, lb (kg)</td>
<td>15 (6.8)</td>
<td>77 (35)</td>
<td>81 (37)</td>
<td>93 (42)</td>
</tr>
</tbody>
</table>

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit armstronginternational.com for up-to-date information.