INSTALLATION INSTRUCTIONS

1. Refer to Figures 1 and 2 for the proper installation of the Rolairtrol.

CAUTION: Use unit lifting lugs only to lift unit as shipped from factory. Unit must be empty and disconnected from pipe, and other restraints. Use proper rigging procedures. Failure to follow these instructions could result in injury or property damage.

SAFETY INSTRUCTION

This safety alert symbol will be used in this manual to draw attention to safety related instructions. When used, the safety alert symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.

NOTE: Welding to the pressure vessel boundary will void the ASME stamp.

WARNING: Carefully read the Instruction Manual to avoid serious personal injury and property hazards and to ensure safe use and proper care of this product.

DESCRIPTION

The Rolairtrol Air Separator is an ASME vessel designed with tangential openings to create a low velocity vortex where air is separated and removed from the circulating water. The Rolairtrol is designed and constructed per ASME Section VIII, Division 1. This product is intended for hot and chilled water systems.

DANGER: Rolairtrol Air Separator is for use in closed loop systems only. Domestic, potable or fresh water can cause serious corrosion in a tank. This can result in leakage and property damage. Do not use for domestic, potable or fresh water. Failure to follow this instruction will result in serious personal injury and property damage.

OPERATIONAL LIMITS

Maximum Operating Temperature: 350°F
Maximum Operating Pressure: 125 PSIG

CAUTION: Hot uninsulated surfaces can cause burns to the skin. Do not touch hot surfaces. Failure to follow these instructions could result in moderate personal injury.

INSTALLATION MANUAL

A85524C

Rolairtrol®

Air Separator

NOT FOR USE IN DOMESTIC (POTABLE) WATER SYSTEMS

This product contains a chemical known by the State of California to cause cancer and to cause birth defects or other reproductive harm.

CAUTION: Rolls or bolting can cause flange or connector failure resulting in the loss of hot or cold system fluid. Use only companion cast iron ANSI flanges or connectors with appropriate gaskets and properly tightened bolts. Failure to follow the instruction in accompanying manual may cause a leakage or explosion which may result in serious injury or death and property damage.

WARNING: Use of improper mating flanges, connectors, gaskets or bolting can cause flange or connector failure resulting in the loss of hot or cold system fluid. Use only companion cast iron ANSI flanges or connectors with appropriate gaskets and properly tightened bolts. Failure to follow this instruction can result in serious personal injury and/or property damage.

WARNING: This product must be installed by a qualified professional. Failure to follow the instruction in accompanying manual may cause a leakage or explosion which may result in serious injury or death and property damage.

WARNING: Wet weight of Rolairtrols can exceed strength of supports. Make sure the provisions are made to support the wet weight and not just the dry weight (see Table 1). Failure to follow these instructions could result in serious personal injury or death and property damage.

WARNING: The Rolairtrol sizes through an “R-8” or “RL-8” can be supported in the piping system as long as pipe hangers are attached to the tangential nozzles as close to the Rolairtrol shell as possible. Sizes larger than an “R-8” or “RL-8” will need to have additional supports, such as a cradle under the Rolairtrol acting on a diameter as close to the Rolairtrol outside diameter as possible or factory installed support brackets.

Note: Welding to the pressure vessel boundary will void the ASME stamp.

2. Rolairtrol sizes through an “R-8” or “RL-8” can be supported in the piping system as long as pipe hangers are attached to the tangential nozzles as close to the Rolairtrol shell as possible. Sizes larger than an “R-8” or “RL-8” will need to have additional supports, such as a cradle under the Rolairtrol acting on a diameter as close to the Rolairtrol outside diameter as possible or factory installed support brackets.

3. Model “R” Rolairtrol Air Separators have strainers which must be removed and cleaned after 24 hours of operation, 30 days of operation and as required to maintain proper system air separation. Before installing the model “R” Rolairtrol refer to Table 2 for minimum distances to be maintained between the blowdown connection or end of the pipe plug and the floor or other equipment for strainer removal.

4. A manual blowdown valve (MBV-1) can be added to the blowdown connection. The function of the MBV-1 is to facilitate the purging of sediment from the vessel.

5. A manual blowdown valve (MBV-1) can be added to the 3” through 12” tanks of the R models, by removing the 3” pipe plug and replacing with the proper sized reducer.

INSTALLER: PLEASE LEAVE THIS MANUAL FOR THE OWNER’S USE.

CV, APPROXIMATE VOLUME AND WEIGHT (Table 1)

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<tr>
<th>size (inches)</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
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<th>16</th>
<th>18</th>
<th>20</th>
<th>22</th>
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<tbody>
<tr>
<td>R vol. (gal)</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>13</td>
<td>25</td>
<td>34</td>
<td>90</td>
<td>150</td>
<td>291</td>
<td>472</td>
<td>723</td>
<td>1149</td>
<td>1577</td>
<td>1958</td>
<td>2463</td>
</tr>
<tr>
<td>R Cv</td>
<td>55</td>
<td>90</td>
<td>130</td>
<td>170</td>
<td>220</td>
<td>295</td>
<td>460</td>
<td>845</td>
<td>1165</td>
<td>1780</td>
<td>2425</td>
<td>3410</td>
<td>5310</td>
<td>6400</td>
<td>7500</td>
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<tr>
<td>R wet wt. (lbs)</td>
<td>70</td>
<td>115</td>
<td>188</td>
<td>278</td>
<td>429</td>
<td>579</td>
<td>1211</td>
<td>2097</td>
<td>3588</td>
<td>5719</td>
<td>1149</td>
<td>1780</td>
<td>2425</td>
<td>3410</td>
<td>5310</td>
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<tr>
<td>R dry wt. (lbs)</td>
<td>70</td>
<td>115</td>
<td>188</td>
<td>278</td>
<td>429</td>
<td>579</td>
<td>1211</td>
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<tr>
<td>RL vol. (gal)</td>
<td>2</td>
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<tr>
<td>RL Cv</td>
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<td>420</td>
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<td>3410</td>
<td>5310</td>
<td>6400</td>
<td>7500</td>
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<tr>
<td>RL wet wt. (lbs)</td>
<td>65</td>
<td>110</td>
<td>172</td>
<td>263</td>
<td>414</td>
<td>564</td>
<td>1711</td>
<td>2662</td>
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<td>12998</td>
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<tr>
<td>RL dry wt. (lbs)</td>
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<td>172</td>
<td>263</td>
<td>414</td>
<td>564</td>
<td>1711</td>
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<td>8450</td>
<td>12998</td>
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<td>22740</td>
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</table>

DISTANCE IN INCHES REQUIRED TO REMOVE STRAINER (Table 2)

<table>
<thead>
<tr>
<th>size (inches)</th>
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<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>distance</td>
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<td>8.5</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>19</td>
<td>23</td>
<td>28</td>
<td>31</td>
<td>37</td>
<td>42</td>
<td>52</td>
<td>56</td>
<td>60</td>
<td>64</td>
</tr>
</tbody>
</table>
The strainer in the R series Rolairtrol may need to be cleaned periodically. This is particularly true during the initial start-up period. The need to clean the strainer will be evidenced by a high pressure drop across the Rolairtrol or by pump cavitation problems. To clean the strainer:

a) Allow the system water temperature to cool below 100°F.

b) Open the blowdown drain valve for a few seconds. This should dislodge accumulated dirt from the strainer. If it does not then the strainer must be removed from the Rolairtrol for cleaning. This can be accomplished by closing the isolation valves to isolate the Rolairtrol from the system. Make sure that the water temperature in the Rolairtrol is below 100°F. Open the blowdown valve on the bottom of the Rolairtrol to drain the unit. Make sure that all flow from the blowdown valve has stopped. If water continues to flow, the isolation valves must be repaired or replaced before proceeding.

c) For 2", 21/2" and 14" through 24" models, remove the flange bolts that hold the strainer housing cover in place on the bottom of the Rolairtrol. Remove the cover and strainer. Clean the strainer and reinstall in the Rolairtrol. Replace the cover gasket with a new one and reinstall the cover making sure that the flange bolts are tightened in a criss-cross pattern to the proper torque. Close the blowdown valve and open the isolation valves to return the Rolairtrol to normal operation. Check the gasket for signs of leakage. If found, additional slight tightening of bolts may be required.

d) For 3" through 12" of the R models, remove the 3" pipe plug that holds the strainer in place on the bottom of the Rolairtrol. Remove and clean the strainer, reinstall them making sure that the strainer goes through the strainer guide and the pipe plug is tightened. Close the blowdown valve and open the isolation valves to return the Rolairtrol to normal operation. Check the pipe plug for signs of leakage. If found, additional slight tightening of pipe plug may be required.

e) Do not use any open flame devices (torches, solder guns, etc.) which may thermally degrade the painted or galvanized surfaces and cause the release of harmful decomposition products, which may be harmful if breathed.

**WARNING:** Leakage, corrosion or indications of damage are signs of an impending serious failure of the Rolairtrol. Periodically inspect for damage and if noted the Rolairtrol must be serviced or replaced. Failure to follow these instructions could result in serious personal injury or death and property damage.

**WARNING:** Open the blowdown drain valve for a few seconds. This should dislodge accumulated dirt from the strainer. If it does not then the strainer must be removed from the Rolairtrol for cleaning. This can be accomplished by closing the isolation valves to isolate the Rolairtrol from the system. Make sure that all flow from the blowdown valve has stopped. If water continues to flow, the isolation valves must be repaired or replaced before proceeding.

**WARNING:** Water at temperatures above 100°F can be very hazardous. Allow system water temperature to cool down below 100°F before blowing down Rolairtrol. Failure to follow these instructions could result in serious personal injury or death and property damage.

c) For 2", 21/2" and 14" through 24" models, remove the flange bolts that hold the strainer housing cover in place on the bottom of the Rolairtrol. Remove the cover and strainer. Clean the strainer and reinstall in the Rolairtrol. Replace the cover gasket with a new one and reinstall the cover making sure that the flange bolts are tightened in a criss-cross pattern to the proper torque. Close the blowdown valve and open the isolation valves to return the Rolairtrol to normal operation. Check the gasket for signs of leakage. If found, additional slight tightening of bolts may be required.

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e) Do not use any open flame devices (torches, solder guns, etc.) which may thermally degrade the painted or galvanized surfaces and cause the release of harmful decomposition products, which may be harmful if breathed.

**WARNING:** Failure to follow these instructions could result in serious personal injury or death.

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