

2", 2 1/2", 14" THROUGH 24"
R AND RL MODELS

Rolairtrol® Air Separator



3" THROUGH 12"
R AND RL MODELS
2" PLUG FOR RL
3" PLUG FOR R

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



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.**



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 I. This product is intended for hot and chilled water systems.



NOT FOR USE IN DOMESTIC (POTABLE) 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 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.



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: 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: The 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.

- 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.

- 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.
- 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.
- 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.



WARNING: CALIFORNIA PROPOSITION 65 WARNING!
This product contains a chemical known by the State of California to cause cancer and to cause birth defects or other reproductive harm.

Cv, APPROXIMATE VOLUME AND WEIGHT (Table 1)

size (inches)	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	22	24
R vol. (gal)	2	3	7	13	25	34	90	150	291	472	723	1149	1577	1958	2463
R Cv	44	64	119	257	398	632	1020	1789	2665	1445	1885	2340	2945	3725	4325
R dry wt. (lbs)	55	90	130	170	220	295	460	845	1165	1780	2425	3410	5310	6400	7500
R wet wt. (lbs)	70	115	188	278	429	579	1211	2097	3588	5719	8458	12998	18470	22740	28054
RL vol. (gal)	2	3	7	13	25	34	90	150	291	472	723	1149	1577	1958	2463
RL dry wt. (lbs)	50	85	115	155	205	280	420	800	1110	1780	2425	3410	5310	6400	7500
RL wet wt. (lbs)	65	110	173	263	414	564	1171	2052	3538	5719	8458	12998	18470	22740	28054
RL Cv	55	80	215	370	580	850	1445	2340	3300	3900	5100	6410	8000	10000	11700

DISTANCE IN INCHES REQUIRED TO REMOVE STRAINER (Table 2)

size (inches)	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	22	24
distance	8.5	8.5	12	14	16	19	23	28	31	37	42	52	56	60	64

TYPICAL HYDRONIC HEATING/COOLING APPLICATIONS

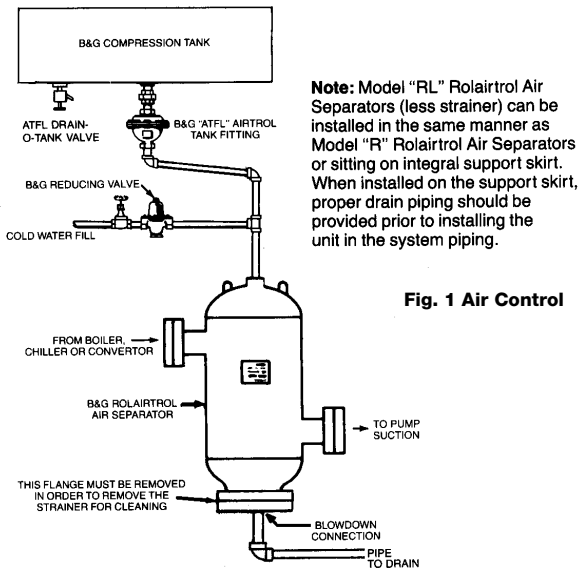


Fig. 1 Air Control

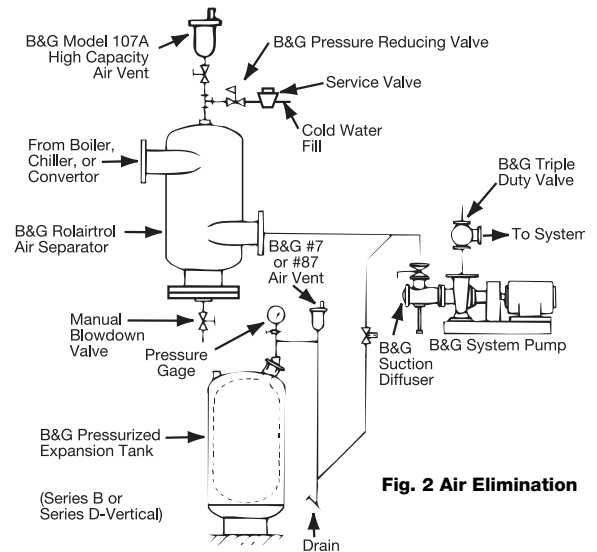


Fig. 2 Air Elimination

SERVICE INSTRUCTIONS

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.

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.

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.

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 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.

WARNING: System fluid under pressure and/or high temperature can be very hazardous. Before proceeding to service strainer, reduce system pressure to zero or isolate the Rolairtrol from the system. Allow the system to cool below 100°F. Failure to follow these instructions could result in serious personal injury or death and property damage.

c) For 2", 2½" 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.

WARNING: The 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.

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 isolations 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.

CAUTION: The use of Teflon® impregnated pipe compound and Teflon® tape on pipe threads provides lubricity which can lead to overtightening and breakage. Do not overtighten. Failure to follow this instruction can result in moderate personal injury from hot water and/or property damage.

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.

*Teflon is a registered trademark of E.I. DuPont de Nemours and Company.

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Let's Solve Water

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