



**INSTALLATION, OPERATION AND
MAINTENANCE INSTRUCTIONS**

1" TUBE RETURN BEND TYPE: LRB

FOR USE WITH HOT WATER, GLYCOL, OR STEAM



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INSTALLATION, OPERATION, AND MAINTANENCE INSTRUCTIONS FOR 1" TUBE RETURN BEND TYPE LRB COILS FOR USE WITH HOT WATER, GLYCOL, OR STEAM

1" inch tube return bend type LRB coils have no moving parts and therefore require no adjustment of any kind within the units themselves. The tubes are supported in the casing with each tube capable of expansion and contraction independent of the others.

Coils should be firmly and adequately supported with a minimum of three supports; one at the center and one at each end of the coil. Coils should be securely fastened to or inside the duct or unit. All ducts or unit walls should be adequately insulated and sealed to minimize heat losses. Flashing should be used to prevent by-pass of air around fin surface.

Air filters should be located on the entering air side of the coil to filter out oil, dust, lint and soil which could foul the fin surface of the coil.

A strainer should be provided on the entering water side of the coil for filtering out foreign particles.

For Hot Water or Glycol Operation

Install casing level to insure complete drainage of the coil. Supply water to bottom connection to ensure continuous venting.

The most common ways to regulate the heating load are by the use of a control valve and/or dampers. For better control of the fluid flow, the control valve should be installed in the return piping.

When coils are heating freezing air using hot water, do not modulate the water quantity through the coils. The minimum recommended water flow rate for heating freezing air is 4.0 gpm per circuit (2.0 ft/sec tube velocity) with a minimum leaving water temperature of 75°F from the coil. Also to prevent freeze up, the water should be circulating through the coils before the air is turned on. During temporary shutdown, to avoid freezing of coils that are installed where outside air would impinge on the surface, the circulation of the hot water should be maintained.

For high temperature systems caution should be taken to maintain adequate pressures to prevent the flashing of steam during operation.

When draining the coils caution should be exercised to guard against the possibility of flashing of water to steam. To completely drain the coils, it is necessary to drain from the bottom connection and the drain connection located at the lowest point of each manifold pipe header.

When coils using water are not in operation and freezing temperatures are encountered, to insure proper protection of the coils, remove water from the coils as described in Aerofin Bulletin CA-194 entitled "Protection of Water Coils to Prevent Freezing Damage", or add anti-freeze similar to Prestone™ (Ethylene Glycol) as mentioned in this bulletin.

For Steam Operation

Install coils with tubes level for proper condensate drainage from the coil.

For best results use only float thermostatic or bucket traps for condensate removal. Use a thermostatic air vent for venting air and 15° degree swing check valve for relieving the vacuum. Refer to Aerofin steam piping recommendations in Bulletin P-56.

When modulating steam supply with air above freezing, use a throttling control valve. Do not modulate the steam below 10 psig steam during operation with freezing air temperatures.

Maintenance Instructions**External Cleaning of Coils:**

Fins should be either steam cleaned or sprayed with non-corrosive solvents or cleaners such as Simple Green™ to remove oil, lint, dust, and soil. Direct high-pressure blast on the fin surface should be avoided.

Internal Cleaning of Coils:

The coils may be internally cleaned by flushing them out with non-corrosive cleaning solvents or steam cleaning, or flushing with clean water.

Spare Parts

There are no spare parts available for these heat exchangers. To order replacement coils contact the Aerofin home office at (434) 845-7081 or visit our website at <http://www.aerofin.com> for the location of the nearest Aerofin regional sales office.