

# INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

**INNER DISTRIBUTING TUBE STEAM AIR HEATER** 

HELICAL FIN TYPE: ANF, AS, BNF, FNF, NFB, AIDT, BIDT

## PLATE FIN TYPE: HM, HD, HDB, HMDT, HDDT



<u>Type ANF</u> (Helical Fins)



Type HD (Plate Fins)





#### http://www.aerofin.com

#### INSTALLATION, OPERATION, AND MAINTANENCE INSTRUCTIONS FOR INNER DISTRIBUTING TUBE STEAM AIR HEATER COILS

Inner distributing tube steam air heater 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.

The most common ways to regulate the heat load is by the use of dampers and/or a control valve.

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 steam side of the coil for filtering out foreign particles.

Aerofin type ANF, AS, BNF, FNF, AIDT, BIDT, HM, HD coils are built with tubes pitched within the casing and the coils should be installed with casing level. The tubes in type NFB and HDB coils are not pitched within the casing. These coils must be installed with casing level or may be installed with slight pitch with blind end higher than connection end to ensure condensate removable.

Type AIDT, BIDT, HMDT, HDDT coils are manufactured with steam supply connection on opposite ends of the coil from the condensate return connection with steam flow making one pass across the air flow. For vertical tube installation of these coil types, the steam supply must be at the top and condensate return at the bottom.

On startup of the coil, the steam should be on before the airflow is started and on shutdown the airflow should be shut off before terminating the steam flow to the coil.

When modulating steam supply, use a throttling control valve for best results.

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.



#### **Maintenance Instructions**

#### External Cleaning of Coils:

Fins should be either steam cleaned or sprayed with non-corrosive solvents or cleaners such as Simple Green<sup>™</sup> 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 <u>http://www.aerofin.com</u> for the location of the nearest Aerofin regional sales office.

