CA-276

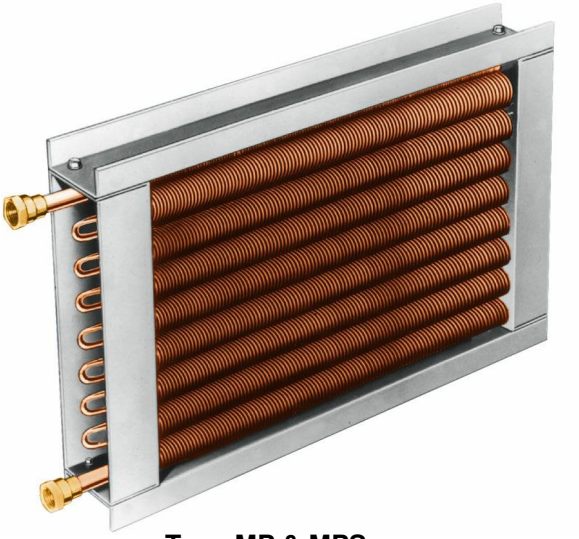
Heat Transfer Products ®

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

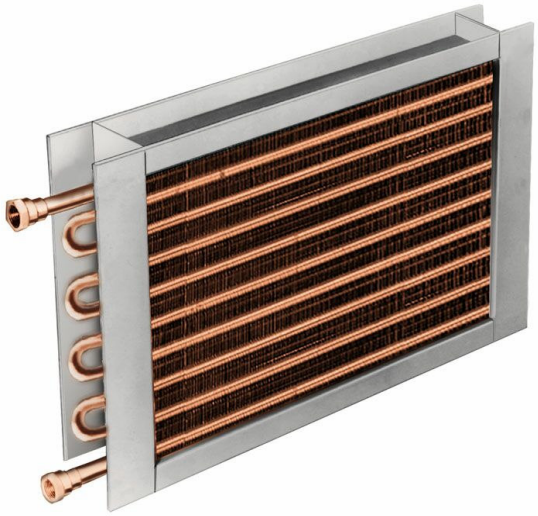
HELICAL FIN TYPE: MP & MPS

PLATE FIN TYPE: HWP & HSP

FOR USE WITH HOT WATER , GLYCOL, OR STEAM



Type MP & MPS
(Helical Fins)



Type HWP & HSP
(Plate Fins)

Heat Transfer Products ®
4621 MURRAY PLACE, LYNCHBURG VA 24506
TEL: (434) 845-7081 FAX: (434) 528-6242
http://www.aerofin.com

INSTALLATION, OPERATION, AND MAINTANENCE INSTRUCTIONS FOR HELICAL FIN MULTI-PASS TYPE MP & MPS COILS AND PLATE FIN MULTI-PASS TYPE HWP & HSP COILS FOR USE WITH HOT WATER, GLYCOL, OR STEAM

Multi-pass return bend type MP, MPS, HWP, and HSP 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 coils may be supported by bolting or welding the coil casing to the system ductwork or by suspending the coil using straps or rods along the length from the ceiling beams or trusses.

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

When installing for horizontal airflow, set coil casing level. 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 flow through the coils. The minimum recommended water flow rate per coil for heating freezing air is 1.7 gpm for a one circuit coil and 3.4 gpm for a two circuit coil (2.0 ft/sec tube velocity) with a minimum leaving water temperature of 75°F. The number of circuits is the number of tubes being supplied with water.

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 connection located at the lowest point.

When coils using water are not in operation and freezing temperatures are expected and 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 horizontal airflow. For vertical airflow, set tubes horizontal with the steam supply connection 1.50” inch higher than the return connection.

Condensate removal, venting, and vacuum relief requirements are the same as for any steam coil installation. For best results use a float thermostatic or bucket trap 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 bypass connection between the coil supply and the coil return with a 45° degree check valve set horizontal in this line opening towards the supply. Do not modulate the steam during operation with freezing air temperatures; operate with the steam on full pressure when the entering air temperature is below 38°F.

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.