Standard
Service / Installation / Operation Manual
Stratomizer ® Heat Transfer Coils

MARLO
HEAT TRANSFER SOLUTIONS

Please consult your local representative or the factory for warranty issues.

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TABLE OF CONTENTS

Thank you for purchasing a DRS Marlo Coil Stratomizer®. If you have any questions regarding the installation or operation of the product, please contact your local DRS Marlo Coil Sales Representative or DRS Marlo Coil.

WARNING

READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLING. FOLLOW THE PROCEDURES FOR SAFE AND PROPER INSTALLATION, MAINTENANCE, AND OPERATION. IMPROPER INSTALLATION, MAINTENANCE, OR OPERATION MAY RESULT IN THE WARRANTY BEING VOIDED.

1.0 EQUIPMENT DESCRIPTION

The DRS Marlo Coil Stratomizer® is a dampered face and bypass coil with alternating fin/tube bundles and bypasses. Air temperature is regulated by opening and closing dampers, which proportion the air between bypass and coil core.

2.0 RECEIVING INSTRUCTIONS

Prior to shipping, DRS Marlo Coil factory inspects all equipment to ensure that it is in excellent working condition. Occasionally equipment shipped in excellent condition may be received damaged due to transit problems.

Inspect unit(s) upon receipt. Units are packaged to withstand shock from transit, but occasionally loosening of screws, etc. will occur. Re-tighten bolts/screws and re-align components as necessary.

3.0 HANDLING INSTRUCTIONS

Handling: To avoid injury and/or coil damage:

- Wear gloves when handling, as some components have sharp edges.
- Use coil casing or lifting lugs to lift the Stratomizer®.
- Do not lift by face area including dampers, headers, tubes, and connection stubs.

4.0 INSTALLATION INSTRUCTIONS

Installation (Actuator): To install the actuator, position linkage to fully open or fully close the damper blades on the coil core of the air leaving side of unit. Position the actuator and base (if not pre installed) to allow rods and arms to operate in an unobstructed fashion. Linkage has been factory set and requires no field adjustment. The only connection necessary is from the drive rod to the actuator arm. Prior to making this connection, determine the range of the drive rod. If the drive rod is not installed, install rod on actuator and apply electric power. Next, observe the operational range of the rod. The position from which the rod started is called "the normal position." The position that terminates the range of the rod is called "the final position." The crank arm is connected to the drive rod from the final position. In making this connection, make sure damper blades remain fully open or closed. The drive rod is connected to a control swivel on the actuator arm, which is adjustable along the length of the arm. It has a hole through which the drive rod can be extended if necessary to retain linkage/actuator compatibility. Locate the position for drive rod as described and tighten all adjustment screws. Prior to applying electric power, visually inspect the installation to determine that;

- dampers are fully open or closed.
- all screws, etc. are secure.
- the actuator arm is in the final position.

Apply electric power and proceed with the following checkout.

Hold the temperature sensing probe in hand. After a moment, the heat from the hand should cause the system to close off cores. (Whenever cores are completely closed, bypass dampers are completely open). Hold an ice cube against the sensing probe. After a moment, the cold air from the ice cube will cause the system to open up cores (closing bypass) to allow air to be heated.

NOTE

On the air entering side of the unit, all dampers have a turn angle 0 degrees to 60 degrees. On the leaving air side, the turn angle is 90 degrees.

Installation: Position temperature sensor/controller as desired, e.g. air entering or air leaving air stream. If sensor is located in leaving air stream, it should be located 3 feet down stream to ensure measurement of a mixed air stream. All sheet metal, plumbing, and electrical connections shall comply with local codes.

5.0 MAINTENANCE INSTRUCTIONS

Routine maintenance for the Stratomizer® usually consists of venting of water Stratomizers and periodic cleaning of the coil core and dampers. However, there are cases when adjustments on the timing of the damper blades are necessary. To adjust the timing, position dampers for a total bypass, i.e. coil core dampers are completely closed and bypass dampers are completely open. On the air entering side, the angle of the dampers should be equal to 60 degrees for the coil cores and 0 degrees for the bypass dampers. Any damper on the air entering side of the unit that is not at either 60 degrees or 0 degrees must be adjusted. To adjust, loosen the blade from the setscrew on the blade shaft arm. Position damper to 60 degrees or 0 degrees as required and tighten the setscrew.

NOTE

The blade shaft does not extend the length of the dampers, so the adjustment must be made from each end.

Inspect dampers to make sure all other dampers have retained 60 degree or 0 degree positions. Re-tighten the setscrew. Conduct checkout experiment (see actuator installation). Observe timing operation.

6.0 DAMPER EDGE SEALS

For better heat transfer efficiency, the dampers are equipped with edge seals. During routine maintenance, it is always a good idea to inspect the seals for wear, etc. This kind of inspection is particularly important, following cleaning during which time seals were subject to direct contact from cleaning devices, including steam spray. If seals are found worn or damaged, they must be replaced.

7.0 CLEANING

Remove filters from filter section if installed in unit. Wear glasses and protective clothing. Use a spray of low pressure steam to spray clean the coil sections.

Spray in direction opposite airflow. Avoid getting steam spray into devices, especially electrical devices/lines, etc. Use clean rags to dry area and to absorb dislodged dirt.

8.0 COIL VENTING AND DRAINING (WATER STRATOMIZERS)

Open coil vent by removing square head plug. Observe the discharge until it is free of air bubbles. Replace the plug using a pipe thread sealant. Tighten until snug.