INSTALLATION, OPERATION

AND MAINTENANCE MANUAL

FOR

EVAPORATOR AND CONDENSER COILS

UNIT MODEL NO. _____
UNIT SERIAL NO. _____
SERVICED BY: _____
TEL. NO: _____

CANADIAN HEAD OFFICE AND FACTORY

1401 HASTINGS CRES. SE
CALGARY, ALBERTA
T2G 4C8
Ph: (403) 287-2590
Fx: 888-364-2727

USA HEAD OFFICE AND FACTORY

32050 W. 83rd STREET
DESOTO, KANSAS
66018
Ph: (913) 583-3181
Fx: (913) 583-1406

CANADIAN EASTERN FACTORY

1175 TWINNEY DRIVE
NEWMARKET,
ONTARIO
L3Y 5V7
Ph: (905) 898-1114
Fx: (905) 898-7244

www.engineeredair.com

SALES OFFICES ACROSS CANADA AND USA

Retain instructions with unit and maintain in a legible condition.
Please give model number and serial number when contacting the factory for information and/or parts.

Feb 07 R1

TABLE OF CONTENTS

RECEIVING

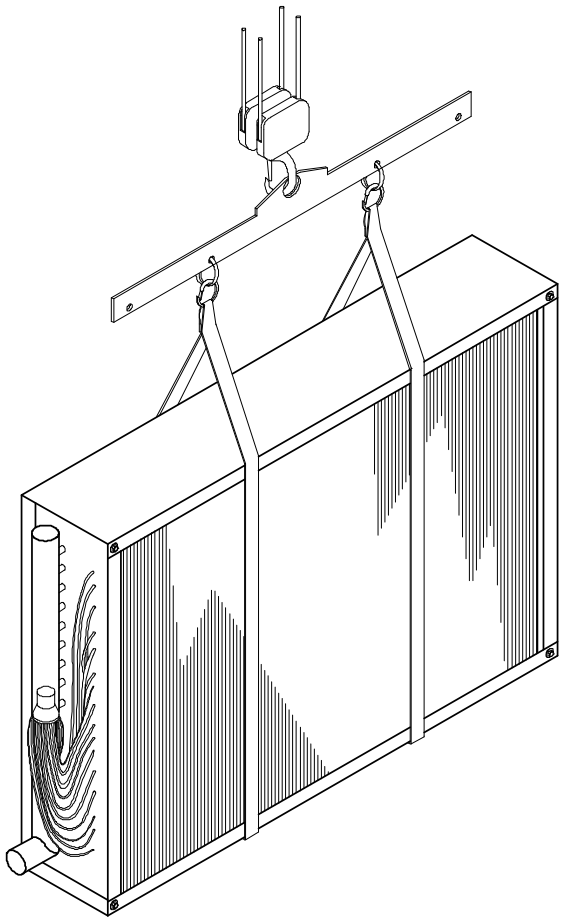
All Engineered Air coils are inspected and factory tested prior to shipment. All Coils should be inspected upon receipt to determine that all items on the bill of lading are received and are in an undamaged condition. If there is any damage or shortage it should be reported immediately and a claim filed with the carrier. Should hidden damage be found upon uncrating or during installation, file a concealed damage claim with carrier. Several coils may be shipped within a single crate. Refer to the important freight procedure notice located on the back of the packing slip.

COIL TYPES

Engineered Air coils are custom designed for a particular application. While two coils may look similar, there may be variances in the fin spacing, circuiting pattern, and header design. Note the tag number on each coil for reference. The fin material is typically aluminum or copper.

RIGGING

Coils must not be lifted by the connections, headers or tubing. Move and lift coil using only the outer frame, and lift using a sling.



INSTALLATION

GENERAL

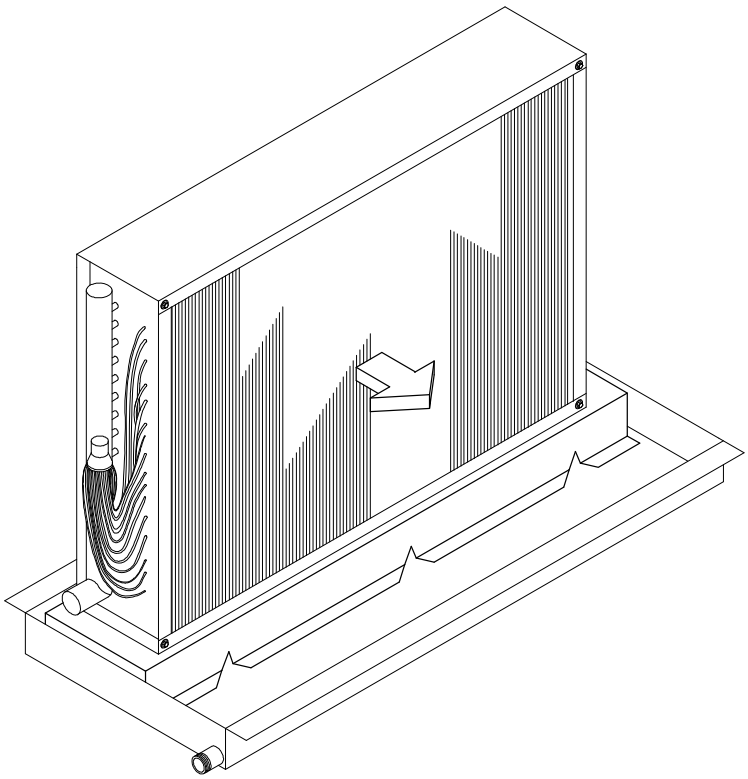
Carefully remove the coil from the shipping container to avoid damage to the finned surface and tubing. Damaged fins can be straightened using a fin comb.

Ensure the coil and all connections have sufficient working clearance and component access.

The coil should be cleaned prior to installation.

Confirm the tag number and handing of the coil prior to installation. The DX coil must be oriented for counter flow heat exchange. The small distributor tubes must be located on the leaving side of the airflow, with the suction header (bottom mounted connection) located on the air entering side. Some coils may have multiple distributor circuits.

All cooling coils must be located in a properly sized drain pan with properly sized drain traps and piping. All water must collect in the drain and leave through the drain pipe. This drain pipe must be trapped and connected to the building sewer. If the installation requires two cooling coils to be stacked on top of one another, a diverter plate and intermediate drain pan is required. The drain from the upper coil can be piped directly into the lower drain pan.



The perimeter of the coil must be sealed to the surrounding enclosure to prevent air from bypassing the coil.

Air entering the face of the coil must be of uniform velocity for proper heat transfer. Do not locate the coil near fan outlets, duct elbows or transitions which could affect the airflow.

MOUNTING

Coils should be mounted level, although they may be sloped to a maximum of 1% towards the headers.

Ensure the coil and all connections have sufficient working clearance and component access.

PIPING

All piping is to be installed by a qualified refrigeration mechanic. All refrigeration specialties shall be installed using good refrigeration installation and design practices.

Recovery, reuse, recycling, reclamation, and safe disposal of refrigeration is the only acceptable practice today. Venting of refrigerant into the atmosphere during installation or servicing is unacceptable. To avoid damage, use an accepted refrigerant recovery system whenever removing refrigerant. When working with refrigerants you must comply will all local government safety and environmental laws.

After installation, the coil should be pressure tested with dry nitrogen or other suitable gas. If the coil is found to be leaking, contact Engineered Air prior to attempting a repair. Damage to the coil incurred on site is not warrantable.

MAINTENANCE

Regularly inspect the coil for signs of corrosion or leaks.

Outdoor mounted condenser coils must be regularly checked for cleanliness.

Inspect cooling coils and drain pans for cleanliness and biological growth once per year during the cooling season or more often as required.

WARNING: ⚠	**Follow the cleaning instructions and recommended inspection schedule to reduce the risk of mold or other bacterial growth. Property damage or personal injury claims may result from mold or bacterial growth arising from improper installation, inadequate maintenance, or failure to inspect. The manufacturer has no responsibility for and makes no express or implied warranties regarding mold or bacterial growth or and other indoor air quality issues. If mold or bacterial growth is present determine and fix the cause and remove the contamination. Properly clean and sanitize the affected area using only approved sanitizer's approved for HVAC equipment. Moisture carry over can also result from dirty coils.**

CAUTION: ⚠	**Coil fins are easily damaged. The finned surfaces of coils can be cleaned using a low pressure water spray. When using cleaning additives or solutions they must be compatible with the coil materials or coatings. Where possible clean coils reverse to airflow so dirt is pushed back out rather than deeper into the coil.**

CAUTION: ⚠	**Use of high pressure steam or water may damage the coil.**

HERESITE® MAINTENANCE

Heresite® is a baked on phenolic coating used to protect metals from some forms of chemical corrosion. At the time of purchase new coils can, as an option, have Heresite® applied at the factory.

If you have a Heresite® coated coil:

- Inspect once per year or more often as required.
- Clean with low pressure air and vacuum with a soft brush.
- Low pressure, chemical free water may be used.

Repair Instructions (using air-dried Heresite® touch-up spray):

1) Ensure surfaces are completely dry.
2) Use a nylon brush to remove any loose scale.
3) Roughen up areas to be repaired with a wire brush.
4) Vacuum fins or the affected area to ensure any loose residue is gone.
5) Spray or brush S-440 solvent* (or any equivalent cleaner) to dissolve any oils or grease.
6) Again, vacuum the affected area.
7) Allow one hour for the solvent to dissolve completely.
8) Cover areas not requiring repair with plastic (or equivalent) and masking tape.
9) Using Heresite® VR-554-T* coating spray all affected areas from different angles to ensure complete coverage. Apply 2-3 full coats. Let dry 3 to 4 hours between coats.
10) Allow Heresite® to cure 24 hours before putting equipment back into service.

* Review the MSDS documentation included with the solvent and coating spray.