MicroChannel Heat Exchanger Installation Guidelines

Replacement Coil for York YLAA Chillers

Introduction

Evapco Alcoil replacement condenser coils are an alternative for York brand chillers, specifically for the York YLAA. These replacement coils are designed as near perfect drop-in, with higher quality, longer life construction and Epoxy coated for improved corrosion protection.

The Evapco Alcoil C46.4x81.8x1.25H-22A20-N0533C is designed as an alternative replacement coil for:

- MicroChannel coils manufactured by Sanhua and others for York
- Fin/Tube coils manufactured by York
- PN: 026-45535-000 , 326-45535-000 , 326-51750-000

What is the difference?

There are several important Evapco Alcoil features based on field experience that make the design more robust and easier to install. These features allow the contractor and end user to replace damaged or failed condenser coils with an alternative solution, upgraded for longer life and to restore the York chiller to operating condition.

1. **Epoxy Coating for Superior Corrosion Protection**
2. **Constructed with Long Life Alloy for Extended Service Life**
3. **Equivalent Design & Performance**
4. **Five (5) Year Limited Warranty Against Defects in Materials & Workmanship**

Product Drawing

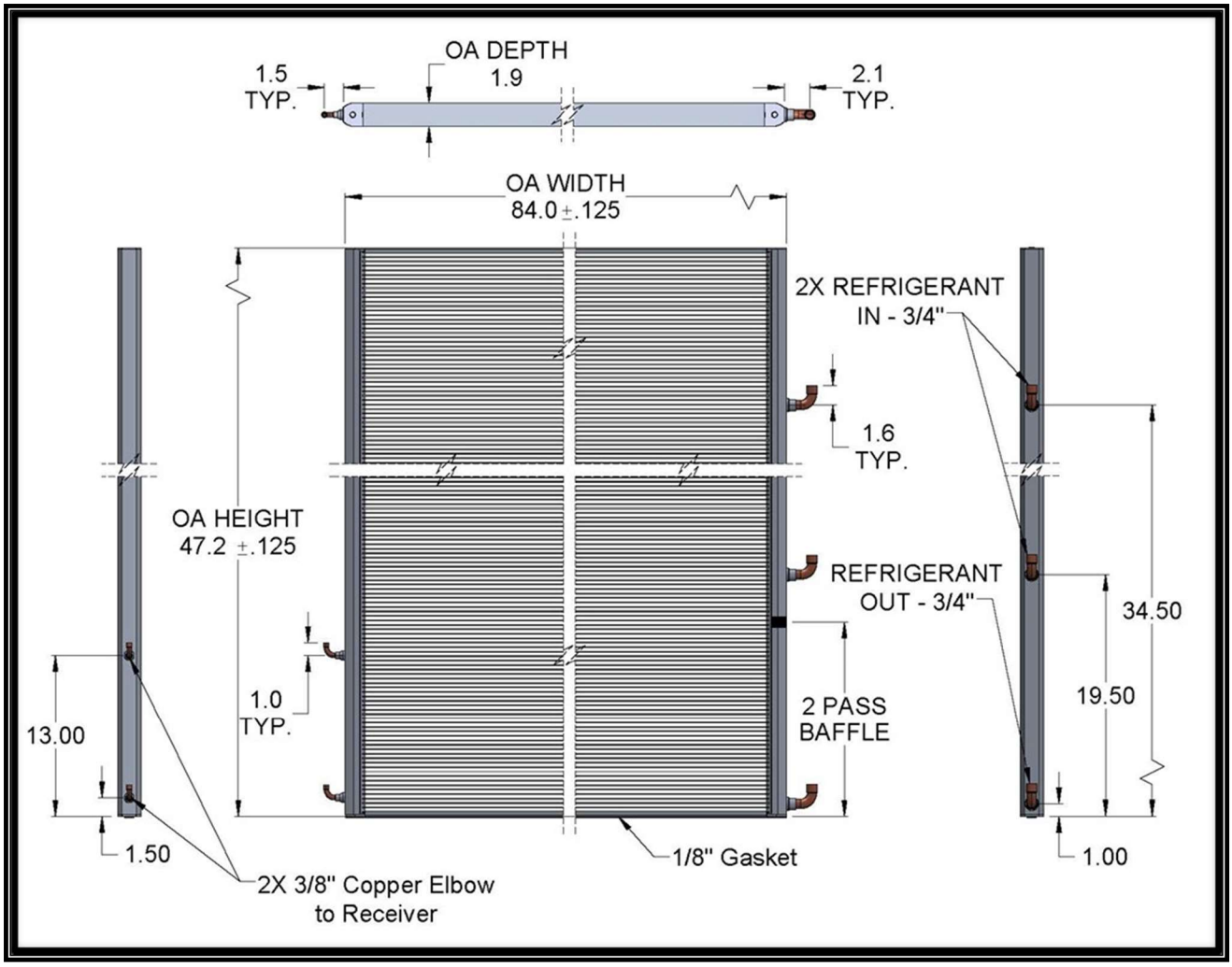

Figure 1. Model: C46.4x81.8x1.25H-22A20-N0533C (Epoxy Coated)

Notice to Installer & User:
Evapco Alcoil is a major U.S. manufacturer of Microchannel coils for the HVAC/R industry and provides coils to the replacement market and to OEM's other than York. Evapco Alcoil alternative replacement coils have not been endorsed by York as a factory authorized part. All coil replacements should be performed by a trained and qualified HVAC/R Service Technician. Proper installation, procedures, handling of refrigerants, startup and operation of the equipment is the responsibility of the installing contractor and end user.

Installation

1. Remove existing coil(s) using standard industry practices and in accordance with refrigerant recovery regulations.
2. Cut existing discharge and liquid lines at the positions shown below in Figure 2.

Figure 2. Front of Chiller: Cut Existing Discharge and Liquid Lines as Shown in Red

3. Cut existing receiver lines, at the positions shown in Figure 3 below.
4. Unbolt coil at 4X locations, remove coil. This is a two-person lift.

Figure 3. Back of Chiller: Cut existing receiver lines as shown in Red. Unbolt the coil at 4X locations as shown in Green.

5. Lift new coil into place. The existing factory brackets on the chiller can be used with longer bolts and spacers to fasten coil at 4X locations. Mounting hardware kit is included with shipment. Use care to not damage coil face while handling. Lift the coil by the headers only. **DO NOT** lift the coil by the copper connections!
6. Each coil is shipped with 10-15 PSI nitrogen. Remove rubber charge plugs while listening to discharge of nitrogen. If the coil is no longer holding charge, contact the factory.
7. Connect ¾" Discharge line to the two ¾" Inlet connections (Top).
8. Connect ¾" Liquid line to ¾" Outlet connection (Bottom).
9. Solder copper connections using Silver solder or Phos-Copper method. Use wet rag on Al side of connections to protect the Al/Cu joint from overheating and damage to the Al/Cu joint.

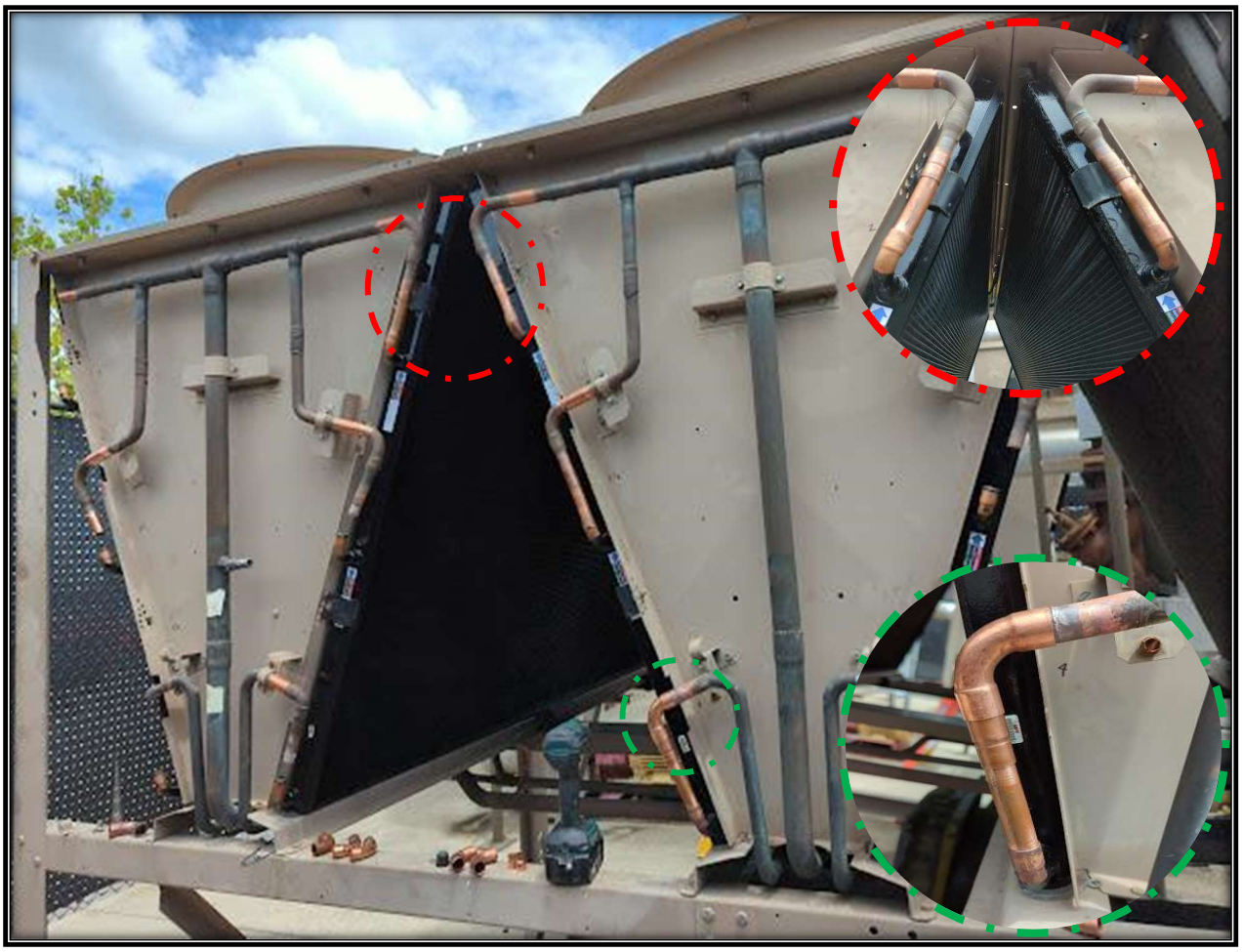

Figure 4. Front of Chiller: Solder Copper Connections as Shown.

10. Connect ⅜” receiver lines (where applicable) to rear coil ⅜” connection. Where there is no receiver, solder a ⅜” Cap on the coil connections.
11. Solder copper connections using Silver solder or Phos-Copper method. Use wet rag on Al side of connections to protect the Al/Cu joint from overheating and damage to the Al/Cu joint.
12. Leak check all connections. Re-charge the system using the original OEM’s recommended refrigerant charge quantity, then adjust using site glass (minimal bubbles) and sub-cooling at 5F to 10F.

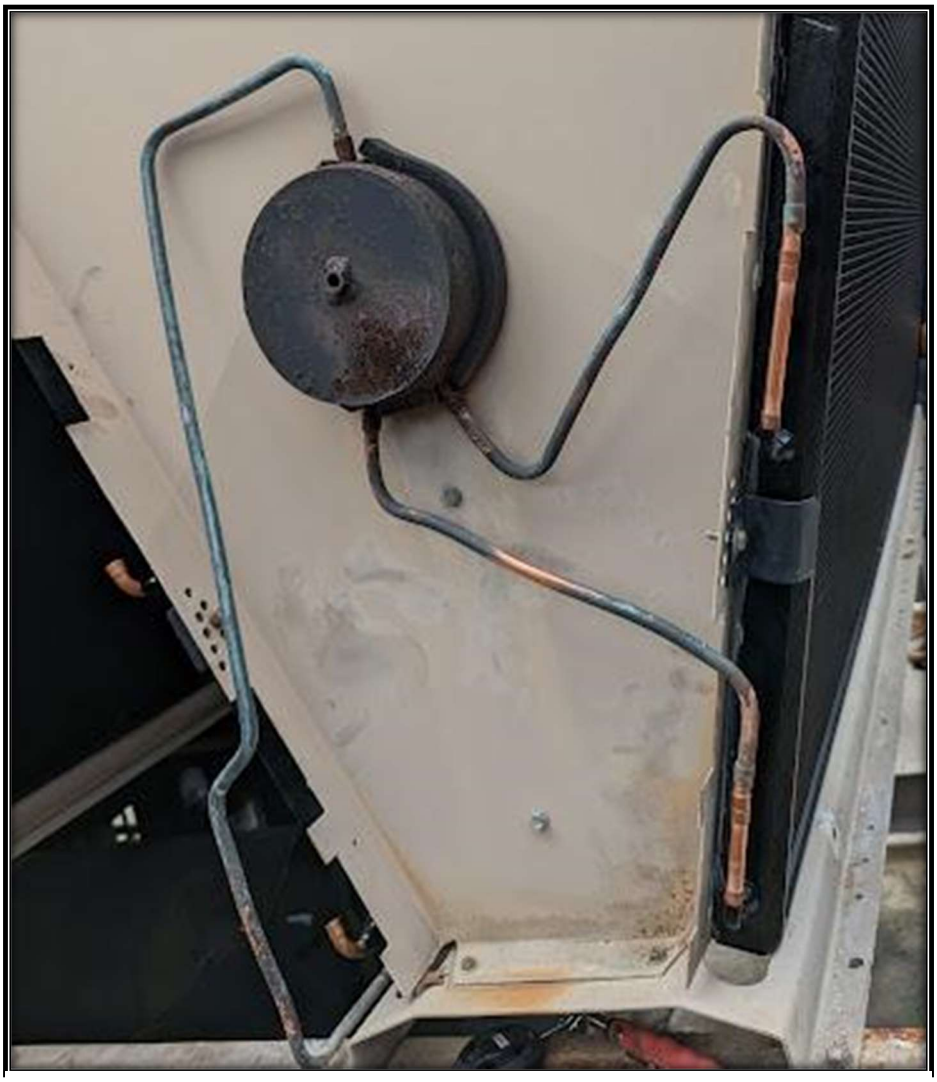

Figure 5. Back of Chiller: Solder receiver lines as shown.

Maintenance & Care

Routine inspection and general cleaning of the Microchannel coil(s) is required for proper life expectancy and to maintain warranty status.

Inspection and general cleaning are recommended quarterly, or more frequently depending upon installation location, debris and scale build up, both visible and microscopic.

Coil Cleaning:

Coils may exhibit a build-up of dirt, grass, ragweed and many other airborne contaminants. Avoid pushing or driving materials deeper into the coil while cleaning. Use a soft bristle brush and/or a shop vac to remove as much debris as possible from the surface of the coil. If necessary, wash the face of the coil using a pressure washer with a maximum pressure of 900 psi at the spray tip. This should be done at a distance of 8"–16". Follow up by applying commercial cleaner approved for MicroChannel coils and rinsing the coil with water depending on the cleaner instructions and manufacturer's recommendations.

Installations With Exposure to Salt Air:

Apply CHLOR*RID DTS directly onto the substrate. Sufficient product must be applied uniformly across the substrate to thoroughly wet the surface, with no areas missed. This may be accomplished by various methods such as airless sprayer, roller, brush, pump-up sprayer, or conventional spray gun. The method does not matter if the entire area to be cleaned is wetted. For most applications, an application rate of approximately 300 sq. ft. per gallon is satisfactory. After the substrate has been thoroughly wetted, the salts will have been solubilized and now it is necessary to rinse them off. It is highly recommended that a pressure washer, max pressure 900 psi to be used for the rinse off step, but a hose may be used if a pressure washer is not available. The water to be used for the rinse is recommended to be of potable quality. A dilution ratio of 50:1 is recommended for potable water, dependent upon water quality. **Follow MSDS Safety Precautions prior to use.**

Repairs:

If the coil face becomes moderately damaged, the coil fins can be manually adjusted with a dental pick. If a tube is cut or breached, causing a leak, in most cases, the tube can be repaired using "RED EPOXY" brand repair kit; available from most local refrigeration wholesalers. DO NOT attempt a coil repair using tin, zinc or other solders, since these will not work or bond with the coil materials.

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Sales Support

EVAPCO Alcoil serves the U.S., Canada and Mexico with regional Sales Engineers, Applications Engineers and HDQ personnel to assist customers with product selection, applications, and production delivery.

Shipping is via Freight Carriers or UPS. Freight Pre-paid or Freight Collect.

All Prices are FOB or Ex Works, York, Pennsylvania, USA

General Inquiries	**Email: Info@evapco-alcoil.com**
Production Lead-times	**Contact Factory**
Purchase Orders	**Email to: Orders@evapco-alcoil.com**
Expedited Orders	**Contact your regional Sales Engineer or the Factory**

EVAPCO Alcoil is leading manufacturer of Airside Microchannel Coils for the HVAC/R and process industries. Located in York, Pennsylvania, EVAPCO Alcoil employees take Pride in Workmanship, Quality and Customer Service. We sincerely appreciate the opportunity to be of service.

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5 YEAR EXPRESS WARRANTY

Applies to EVAPCO Alcoil® heat exchanger product models.

MANUFACTURER'S EXPRESS WARRANTY

EVAPCO Alcoil warrants the unit identified above against failure caused by defects in materials and workmanship for five **(5) years** from the date of shipment by EVAPCO Alcoil. This warranty includes all structural components, tubes, fins, headers and connections. **Labor costs associated with any repair work performed under the terms of the warranty are NOT included within the warranty.** Damage caused by misuse of the product, including without limitation failure to properly install or maintain the product, is NOT covered by the warranty.

In addition to the unit warranty above, EVAPCO Alcoil warrants the thermal performance of the unit as shown on the certified drawings delivered to the customer for a period of one-year from the date installation is completed in accordance with good engineering practices, but in no event shall such warranty period exceed eighteen (18) months from the date the unit is shipped by EVAPCO Alcoil. If after installation and start-up there is any question regarding thermal performance of the equipment, at the owner's request EVAPCO Alcoil will send its engineers to the jobsite to conduct a performance test. This test may be observed by the owner and the consulting engineer or by their authorized representatives. If the results of the evaluation show the equipment to be deficient, EVAPCO Alcoil will make the necessary repairs or alterations to correct the deficiency subject to the limitations set forth below. If the equipment is found to be performing in accordance with its certified capacity, the owner will reimburse EVAPCO Alcoil for all direct expenses incurred in connection with such performance test.

EXCLUSIONS

The above warranty shall not apply to any product that has been modified or repaired contrary to EVAPCO Alcoil recommendations or generally accepted practices or procedures in the industry, or operated under conditions which may cause product failure. EVAPCO Alcoil shall not be responsible for any costs associated with the product damage, loss or replacement due to freeze-up, improper water treatment, improper cleaning, fluid chemistry exceeding EVAPCO Alcoil's recommendations, clogging and debris, fouling, corrosion, galvanic induced corrosion, vibration, thermal cycling, hydraulic shock, overpressurization, compressor failure, system contamination, loss of protective coating (where applied) and any other operating or system condition which may cause product failure.

LIMITATION OF LIABILITY

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