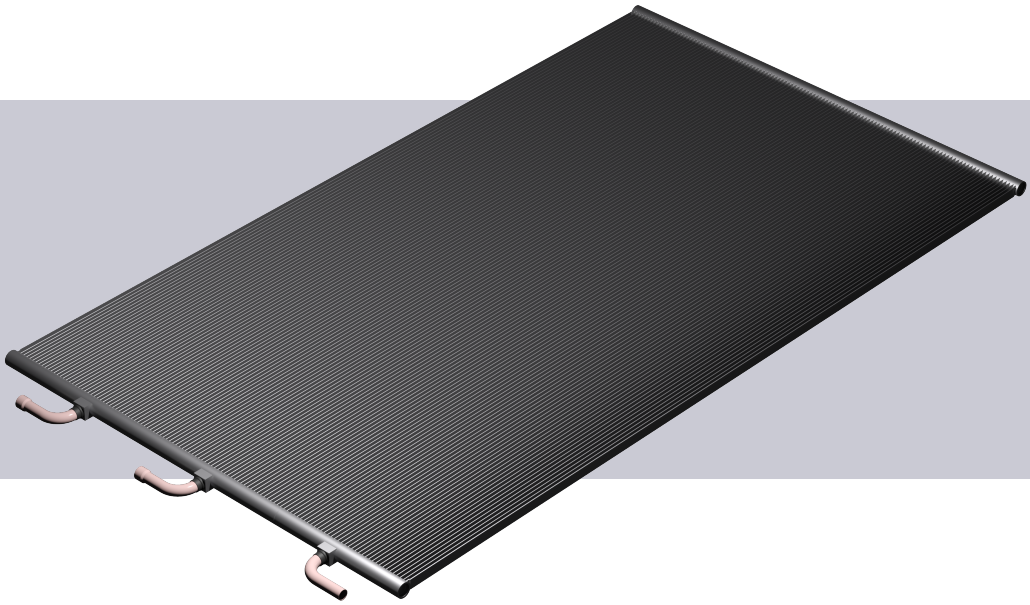
Replacement Coils

MICROCHANNEL CONDENSER COIL REPLACEMENT FOR YORK/JCI CHILLERS

- FULL COMPATIBILITY TO OEM COILS
- HIGH CORROSION PROTECTION
- LONG SERVICE LIFE



INSTALLATION INSTRUCTIONS
ENGLISH

HFC-BASED REFRIGERANTS

HFO-BASED REFRIGERANTS

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KALTRA

CUSTOMER SERVICES

Maintenance and Warranty

As standard, Kaltra guarantees heat exchangers for a period of 24 months uncoated and 60 months e-coated, variations tailored to suit product and application are also available; please contact Kaltra for full terms and details.
For a free quotation contact Kaltra or your local sales engineer. All Kaltra products are designed in accordance with European and international standards and norms.

⚠ **CAUTION**

Warranty cover is not a substitute for maintenance. Warranty cover is conditional to maintenance being carried out in accordance with the recommendations provided during the warranty period. Failure to have the maintenance procedures carried out will invalidate the warranty and any liabilities by Kaltra.

In addition to warranty services, a 24 hour, 7 days a week on-call service is available throughout the year to EU sites. This service will enable customers to contact a duty engineer outside normal working hours and receive assistance over the telephone or per email. The duty engineer can, if necessary, attend site. Full details will be forwarded on acceptance of the maintenance agreement.

Service Contacts

For further assistance, please e-mail: support@kaltra.de or telephone:

Sales enquiries:	+49 (0) 911 715 320 21	sales@kaltra.de
24/7 support hotline:	+49 (0) 151 418 586 90	support@kaltra.de
Information:	+49 (0) 089 943 998 66	info@kaltra.de
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CONTENT

INTRODUCTION

Kaltra manufactures microchannel condenser coil replacements for a wide range of air-cooled chillers and condensers of different brands. These coils are designed as a direct replacement for original manufacture's heat exchangers, either microchannel type or finned tube type, and offer high quality, substantially longer operating life, and perfect oil management.
Replacement coils outperform original heat exchangers also in terms of heat transfer rates, thereby ensuring higher efficiency of the system and allows savings on energy. Lower air pressure resistance also guarantees savings on fan power.
Full compatibility with the original heat exchangers assures easy, trouble-free replacement procedure.

Advantages

Replacement coils offer valuable advantages for the customers, foremost among which are:

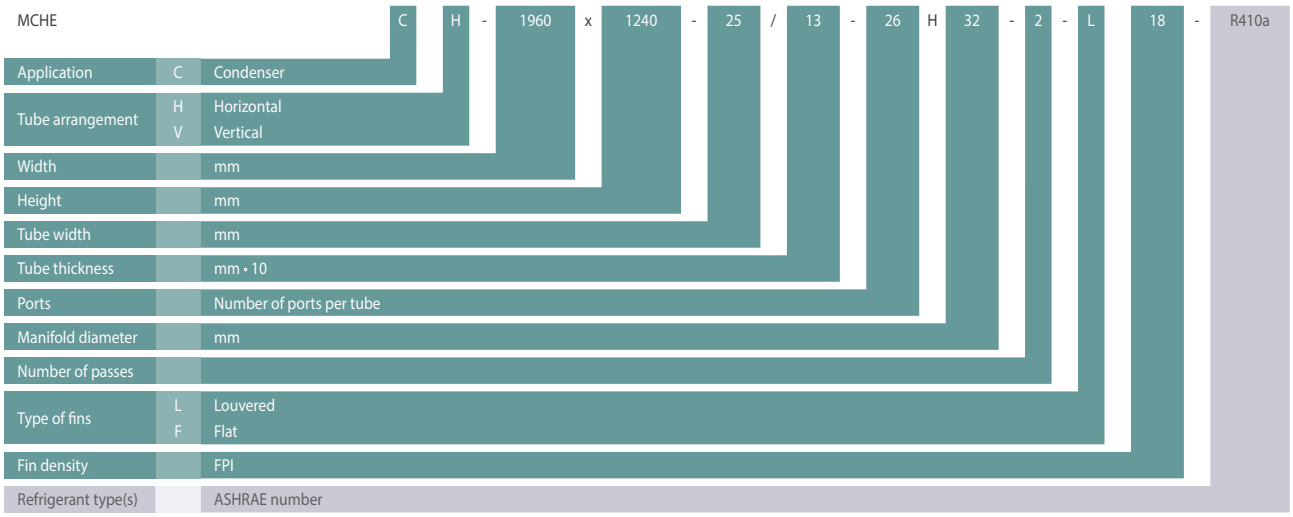
- Full compatibility, exact matching with original coils
- Long service life and extended warranty: 5 years for e-coated coils; 2 years for uncoated coils
- Protective coatings (E-coating or TCP-coating)
- Improved heat transfer performance
- Short lead times/stock availability
- Optional casings
- 100% factory tested, CE-marked, UL-listed
- Detailed installation guidelines

Options

Optionally, replacement coils can be made with modifications as per customer requirements, targeted to better heat exchanger efficiency and flexibility. Additional mountings, connections are available by request. Replacements for finned tube heat exchangers may include coil casings for matching dimensions of the original coil.

Product Labeling/Nomenclature

The product label identifies the product and provides essential information about the product and its use, including coil serial number, allowed refrigerant type(s), internal coil volume, design pressure and temperature. The product label is affixed to one of the heat exchanger manifolds.



INSTALLATION PROCEDURE

The installation should be carried out by trained and experienced specialists in accordance with common refrigeration practice, recommendations of the present manual, local rules and requirements and directives in force.

IMPORTANT Kaltra takes no responsibility for improper installation, which may cause heat exchanger malfunction or damage to the equipment.

The installation procedure includes the below-listed major steps that should be done using standard industry practices and in accordance with refrigerant recovery regulations. The present document must be read in conjunction with Technical Manual for Microchannel Condensers.

- Verifying the supplied heat exchanger(s)
- Refrigerant evacuation
- Dismounting of original condenser coil(s)
- Installing replacement condenser coil(s)
- Refrigerant and oil charge

Verifying Condenser Coil

Before installation, ensure the replacement coil has no damages. Clean the condenser coil if necessary. Follow instructions for cleaning microchannel coils indicated in Technical Manual for Microchannel Condensers.
All supplied coils are factory-tested and sealed with nitrogen gas (0.05MPa). When remove sealing caps located on refrigerant connections, ensure the coil holds nitrogen gas, thus having no leakages.

IMPORTANT Heat exchangers must be stored free of fluids and with protective caps on refrigerant connection pipes to avoid corrosion and/or contamination.

IMPORTANT Avoid storing heat exchangers in horizontal position for a long period of time.

CAUTION Heat exchangers are shipped with a holding charge of inert gas to guard against contamination or moisture during transportation and storage. The charge should be checked to indicate if leaks are present before evacuation of inert gas. If the charge appears to be either partially or totally lost, then the heat exchanger shall be checked for signs of physical damage.

CAUTION Avoid dropping, impacting, placing heavy objects on top of, stepping on microchannel coil as this may cause coil warps. To avoid damages, never lift the microchannel coil by the refrigerant connection pipes.

Refrigerant Evacuation

Turn off the chiller. Turn off all electrical disconnects to the chiller.
Discharge refrigerant from the system using original OEM instructions or those provided in Technical Manual for Microchannel Condensers.

Dismounting of Original Condenser Coil

Follow standard industry practices when dismounting the original coil. Disconnect refrigerant lines from the original coil and cap off lines to mitigate moisture from entering the refrigeration circuit. Unmount the coil from unit panels. Slide the coil out of the frame.
Using a wet rag, clean dirt and grime from coil supports.

Installing Replacement Condenser Coil

Follow standard industry practices when installing condenser coil.
Condenser coil must be installed with inlet refrigerant connection be at the top. Refer to accompanying drawings to identify inlet connection location. Do not install condenser coils upside down.
Use care not to damage the coil face while handling.
Mounting the coil will require screws, plastic/rubber washers and sealing bands identical to the original ones.
Braze copper refrigerant connections using silver solder or phosphorus-copper method. Use a wetted rag on the aluminum side of connections to protect aluminum-copper joints and shrink sleeves from overheating and damage during brazing. Leak check all connections.

⚠ **CAUTION** When brazing in the new microchannel coil, the temperature at the copper-to-aluminum joint must not exceed 250°C. Failure to follow this requirement could result in coil damage.

Charging Refrigerant

Re-charge the system using the original OEM's recommended refrigerant charge quantity. For details of the charging procedure for microchannel coils, refer to Technical Manual for Microchannel Condensers.
Charge the system with lubricant when necessary. Follow original OEM's recommendations when selecting and charging oil.

⚠ **CAUTION** Pressure testing can be dangerous if not properly conducted. Personnel undertaking pressure testing must be technically competent and suitably qualified.

⚠ **CAUTION** Over-pressurization of the refrigeration system can cause explosive discharge of high-pressure refrigerant, loss of refrigerant, environmental pollution, equipment damage, injury, or death. Use extreme caution when charging the refrigerant system. Do not pressurize the system higher than the design pressure marked on the unit's nameplate.

NOTES

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