

June, 2011

H & K International

RE: 2012 Refrigeration Scope:
Ice Machines (Remote Condensers)
Walk-in Coolers/Freezers (New)

General:

Ice Machines:

- H&K Canada will supply all required ice makers, flexible refrigeration line sets and remote condenser (if required) for each ice machine unit required at the restaurant. The quantity of ice makers required for each location is determined by the approved drawing and needs to be verified with the Project Manager or General Contractor.

Walk-in Coolers/Freezers:

- H&K Canada will supply the walk-in panels, evaporator and condenser based on the approved drawings.
- Typically, H&K Canada will complete the assembly and installation of the walk-in panels.

Miscellaneous:

- General contractor or Refrigeration Contractor is to secure all required permits - refrigeration and/or mechanical.
- Refrigeration Contractor is to supply all required copper, Armaflex, Freon or other fittings as required to complete the installation of the refrigeration for Walk-in Cooler/Freezers.
- General Contractor is responsible to provide required curbs, electrical, and weather roof penetrations required for installation of the equipment and between the remote condensers and ice makers or evaporators.
- General Contractor is responsible for access to the locations and where the equipment is being installed and appropriate preparation of the floors, walls and ceilings.

General Contractor/Refrigeration Contractor/Plumbing Contractor/Electrical Contractor Scope:

Ice Machines:

- Arrange for a crane to lift and set in place the ice machine remote condensing unit/s on the roof.
- Run pre-charged lines or line sets and control wires from the ice machines to the condensing unit located on the roof. Any excess lines should be rolled up neatly above the ceiling.
- Refrigeration contractor to make all refrigeration line connections.
- Coca-Cola to make all water connections to the Ice Making Units

- Refrigeration contractor to start-up unit and insure proper operation per manufactures instructions and included manuals. **If the unit does not start-up or operate properly, the contractor must immediately call Manitowoc (800-545-5720) and report the issue. Manitowoc will authorize a service call if required.**
- Seal and weather proof all roof penetrations.

Walk-in Cooler/Freezer:

- Arrange for a crane to lift and set in place the cooler/freezer remote condensing unit/s on the roof.
- If condensing units are internal, coordinate unit mounting and location with General Contractor and approved building plan.
- Supply all required copper, Armaflex, Freon or other fittings as required to complete the installation of the refrigeration.
- Hang the evaporator coils in the cooler/freezer per McDonald's drawings.
- Run the copper and **insulate suction and liquid lines** from evaporators to condensing unit/s on the roof.
- Cut the required openings in the cooler/freezer walls and seal with appropriate foam.
- Install heat tape that is shipped inside freezer coils, on the drain line in freezer and cover with armor flex as required.
- Start up and adjust refrigeration system and set super heat.
- Install and adjust thermometer bulb/s as required by Manufacture.
- Freezer temperature should be set at -5 to -10 . Cooler temperature $+35$ to $+38$.
- Mount smart controller per McDonald's supervisor's location, calibrate and return manual to supervisor.
- Seal and weather proof all roof penetrations.
- Plumbing Contractor to run drain lines to location indicated on the prints, also **INSTALL P-TRAPS ON EACH DRAIN LINE**. P-traps are to be located outside the cooler/freezer area by a floor drain.
- Electrical contractor will make all final connections per manufactures requirement. Also, conduit must be sealed inside where they penetrate cooler/freezer wall.
- Electrical Contractor to install smart controller, as per manufacturer's instructions, and furnish and run low voltage wires.

NOTE:

- Crank Case Heater must be activated 24 hours prior to start up of equipment.
- Walk-in's are to operator at temperature for 24 hours and systems re-checked prior to loading any product into the units.
- Provide one year parts and labor on materials and labor supplied.