

## CCA - Central Air Cooled Chillers



Cooling Technology's Central Air Cooled Chiller is designed for either indoor or outdoor locations. The CCA line features a remote air cooled condenser, a screw compressor and a shell and tube evaporator. Its compact design and open frame reduces floor space requirements. The model is designed for use with a remote pump/tank station. Our CCA line of chillers is available in 30 to 140 ton capacities.

### ***SUPERIOR BY DESIGN***

Our use of the highest quality components and a robust design assures a dependable, long lasting trouble free machine and a clean corrosion free environment. All components are bolted to a heavy gauge steel frame. The frame design incorporates lifting eyes for ease of lifting the chiller to high elevations.

### ***COMPRESSOR***

The CCA+ 50 ton units use a screw compressor (30 & 40 ton units have a reciprocating compressor) and a remote air-cooled condenser with fan cycling to maintain head pressures. Capacity is accurately controlled by cylinder unloading, or, in case of the screw compressor, infinite control to approximately 25% part load.

### ***EVAPORATOR***

The CCA series uses a shell and tube evaporator optimized for higher-capacity design conditions.

### ***AIR COOLED CONDENSER***

Each model CCA includes a remote condenser for outdoor location. Inside, the condenser has multiple fans with vertical air discharge, the unit has a galvanized steel frame and casing, heavy gauge galvanized steel legs and base rail. The end panels, center support and partitions have collared tube holes to increase tube life. The condenser tubes are constructed from seamless de-ionized copper. The high efficiency tubes have 12 aluminum fins per inch.

The CCA condenser and chiller proper ship separately. A set of refrigerant shut-off valves (four total) is factory installed to hold the refrigerant within the chiller and condenser. At the customer location, a refrigeration technician merely has to place the two components at the appropriate location, interconnect the units with factory recommended copper tubing, evacuate the tubing and open the isolation valves. A normal system will not need any additional charge of refrigerant, unless the piping system is unusually long and large in size. Within a day the system is ready to operate.

### ***HOST OF SAFETIES***

A full range of safeties (with indicating warning lights) is standard: high refrigerant pressure relief valve, automatic low refrigerant pressure cut-off, manual high refrigerant pressure cut-off, low oil pressure cut-off, freeze protection, multiple stage thermostat and fault indicating pilot lights.

### ***ELECTRICALS***

All electrical components are mounted in a NEMA 4 rated electrical panel that is professionally wired and numbered to correspond with the electrical schematic.

CTI's rugged MCS Microprocessor Controller keeps the chiller running at its most energy-efficient level. A "control zone" – based on leaving fluid temperature – reduces compressor cycling and improves unit part load efficiency. It is the most user-friendly controller available and, with its extremely fast Windows based system, provides full protection, monitoring and control via RS-232 or RS-484 port. Other features of the controller include status & dynamic graphing mode, automatic history storage for all points and battery backed up ram & clock (see chiller microprocessor controller specifications for details).

Our attention to detail extends to our choosing to use long life, LED indicator lights. The CCA chiller is fully wired, charged with of refrigerant at the factory and tested under simulated load conditions before shipment to your job site.

### ***AVAILABLE OPTIONS***

CTI offers several options for our CCA line of chillers. The chillers are designed to be coupled with the CTI pump/tank stations. See tank and pump specifications for more information on pump/tank configurations. In addition to the pump and tank, an automatic water make-up valve can be added to maintain the liquid level or a side stream filter to promote a clean running system. We offer several alarms which can be added to the chiller as well: low water level alarm, high temperature and low temperature alarms.