

INSTALLATION

Fluid connections: Connect each port with full size, unrestricted, insulated hose or pipe. The hose or pipe should be equivalent in diameter to the port connected to and rated for 100 PSI (689 kPa) and 100°F (38°C)

IF THE ICEMAN CHILLER WILL FEED A PULSATING SYSTEM SUCH AS A TEMPERATURE CONTROL SYSTEM, A BYPASS VALVE MUST BE INSTALLED TO ENSURE FLOW.

MOKON RECOMMENDS THAT YOU INSTALL A STRAINER ON THE "FROM PROCESS" LINE TO PREVENT CONTAMINATION FROM THE PROCESS ENTERING THE CHILLER.

Condenser cooling water connections

Condenser cooling water may be obtained from city or tower water supplies. The water usage is dependent on the tonnage of the system and temperature of the water. Variation in the cooling water temperature will lead to variation in water usage. If city water is being used, it will need approximately 1.5 gpm (5.7 lpm) per ton of refrigeration. If tower water is being used, it will need approximately 3 gpm (11.3 lpm) per ton of refrigeration. Mokon recommends that you install a strainer on the condenser water supply line to eliminate any unnecessary fouling. The connections for the condenser cooling water are located in the back of the system, labeled "Supply Water" and "Drain Water".

Supply Water: Connect this port to an adequate source of cold, clean supply water. Do not restrict incoming water to the condenser.

Drain Water: Connect this port to drain. Do not restrict outgoing water from the condenser.

Electrical Connections: Install power cord to disconnect or power distribution block. Be certain supply voltage is equal to unit voltage as listed on the serial tag.

Fill Reservoir:

1. Fill reservoir with fresh water. (50-65°F temp range only)

OPERATION

Start Unit:

NOTE: REGARDLESS WHAT TYPE OF HEAT-GENERATING PROCESS YOUR CHILLER IS USED ON, IT IS IMPORTANT THAT THE CHILLER IS THE FIRST PIECE OF EQUIPMENT STARTED. IF YOU DO NOT START THE CHILLER FIRST, TOO MUCH HEAT CAN ACCUMULATE AND THE CHILLER WILL NOT BE ABLE TO CATCH UP, APPEARING TO BE UNDERSIZED FOR THE APPLICATION.

1. Turn on main electrical disconnect switch **12 HOURS PRIOR TO STARTING SYSTEM** to energize the compressor band heaters. This will preheat the compressor oil and remove liquid refrigerant from the crankcase of the compressor.
2. Open any valves on process connections.
3. Start supply pump. Check phase, rotation should be clockwise from motor end of pump.
4. Let unit run for at least 3 minutes to purge air from system.
5. Top off reservoir with fluid to $\frac{3}{4}$ full.
6. Push start button for compressor. **For systems equipped with a scroll compressor**
Check the rotation of the compressor using the following procedure.
 - Observe the high/low refrigeration gauges.
 - Turn on the compressor by pressing the "start" button (the green light will illuminate).
 - The high/low refrigeration gauges should rise/fall to proper levels
7. Set the setpoint to the desired temperature and allow unit to run.
8. Observe tank temperature gauge as temperature drops.

Shutdown Unit:

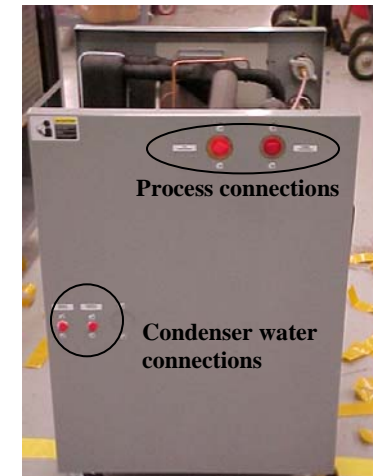
NOTE: THE CHILLER SHOULD BE THE LAST PIECE OF EQUIPMENT SHUT OFF TO

PROTECT THE SYSTEM FROM OVERHEATING.

1. Turn off the compressor by pressing the "stop" button (the green light will go off).
2. Turn off the supply pump by pressing the "stop" button (the green light will go off).
3. The main electrical power to the Iceman Chiller should remain connected. Note: When the power is turned off to the system, the compressor crank case heater is also turned off which will hamper the system's ability to burn off liquid in the compressor which will result in damage to the compressor.
2. The main electrical power and the supply water (for water-cooled systems) to the Iceman Chiller may be turned off if the system is being relocated or for prolonged shut down.

CAUTION: This document should only be used as a guide. The operator and installer must read the manual provided on the CD.

STANDARD LAYOUT



TROUBLESHOOTING

Supply pump will not start:

1. System unplugged / power off.
2. Power source wiring.
3. Blown fuse at power supply.
4. Inadequate flow of process fluid.

Compressor will not start or shuts down with supply pump running:

1. Scroll compressor rotating in the wrong direction.
2. Inadequate flow of process fluid.
3. Process fluid temperature below set point.

Chiller does not keep up with load:

1. Chiller not started correctly. (before heat generating process)
2. Scroll compressor rotating in the wrong direction.
3. Chiller undersized for load.

If you are planning on running at temperatures below 50°F, you must consult the manual and must notify the factory.

About the CD

The CD contains a complete manual for Standard Iceman Portable Chiller Systems.

The files on this CD are provided in .PDF format for easy viewing using Adobe Acrobat Reader. We have provided on the disk a copy of Adobe Acrobat for your convenience.

If you have any questions regarding the use of the unit, the CD, or if you wish to obtain a hard copy of the manual please contact the Mokon Service Department at 716-876-9951.

Design is the Difference sm

At Mokon, it's about more than just engineering products – it's about engineering performance. You'll see why design is the difference in our full line of Portable Chiller Systems. Designed with the highest quality components to offer long-lasting performance and accurate temperature control, Mokon portable chillers feature:

- ***Continuous process cooling***
- ***Microprocessor controls***
- ***UL labeled electrical sub-panel***
- ***NFPA 79 electrical safety standards***
- ***Process cooling requirements down to 5°F (-15°C)***
- ***Custom options to meet your specific needs***



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Water Cooled Portable Chiller
Systems

QUICK START REFERENCE GUIDE

OPERATION, INSTALLATION,
AND TROUBLESHOOTING FOR
STANDARD ICEMAN WC AND
WS PORTABLE CHILLER
SYSTEMS

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