



TEMPERATURE CONTROLLERS... PORTABLE CHILLERS... CENTRAL CHILLERS... PUMP TANK STATIONS... TOWER SYSTEMS...

SUBJECT: PROPER CLEANING PROCEDURE FOR THE BRAZED PLATE EVAPORATOR

#3-A-149

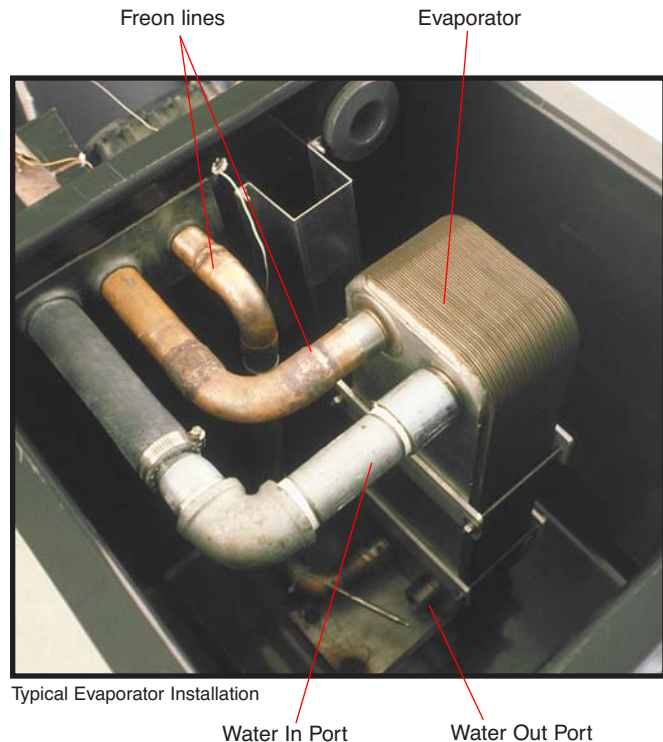
7/14/1995

The brazed plate evaporator is made of stamped stainless steel plates, furnace brazed together with copper based joints. The complex geometry of the flow passages promotes turbulent flow which gives high efficiency and reduces fouling by mineral deposits. Large solids (plastic pellets, chunks of mineral deposits etc...) will collect at the water inlet port or the evaporator and restrict flow through some of the passages. If this possibility exists we recommend filters or strainers be added to the from process line. If the evaporator becomes fouled there are a couple of methods for cleaning.

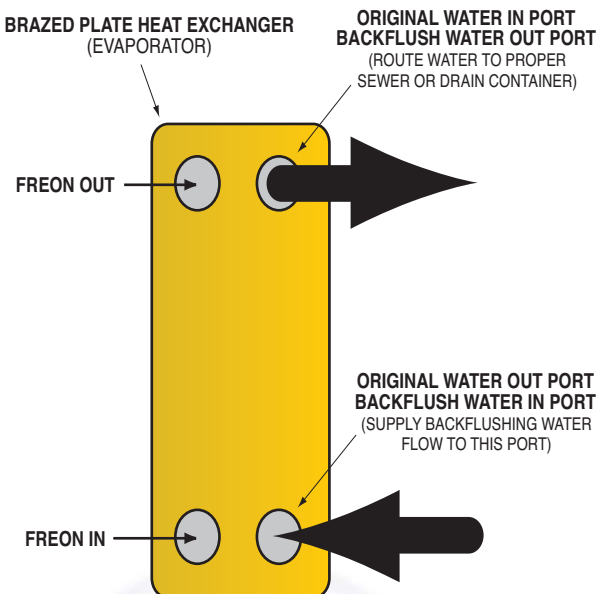
Remove the piping to the water in port at the evaporator, if there are solids at the inlet remove them. Then backflush to remove any solids that may be trapped between the plates (see backflush procedure below). If there are mineral deposits adhered to the plates, the evaporator must be backflushed with a mild acid solution: 5% phosphoric, or 5% oxalic acid is recommended. After cleaning, rinse with clear water before returning to service.

PLEASE NOTE

THIS PROCEDURE IS NOT NORMAL MAINTENANCE MAINTAINING PROPER WATER QUALITY AND FILTRATION WILL MINIMIZE THE NEED TO BACKFLUSH THE EVAPORATOR.



Typical Evaporator Installation



BACKFLUSHING PROCEDURE

1. Turn off all power to the machine. For chillers with a reservoir tank (as in picture), drain tank to below evaporator outlet. For chillers without a reservoir tank, drain total unit.
2. Connect a water supply hose to the evaporator water outlet. If acid cleaning, connect the discharge hose from the acid pump to the evaporator outlet port.
3. Connect a hose to the evaporator water supply port and to an appropriate containment vessel. If acid cleaning, connect the evaporator water inlet port to an acid solution reservoir tank. Dispose of all backflush water according to local codes.
4. Your water supply source should have at least 20psi available. If acid cleaning, follow the instructions supplied with the acid solution carefully.
5. Reinstall all water lines to original factory orientation. Restart the unit and check for proper operation.