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Chill Water Tank Operation & Maintenance

Chilled water storage tanks are designed to be used with chillers which do not have sufficient water volumes in relation to the size of the chiller. These undersized systems do not have enough buffer capacity for the chilled water causing poor temperature control, erratic system operation and excessive compressor cycling.

The tank solves this problem by adding fluid to buffer the system. The chill water tank reduces the rate of change of the return water.

Chillers are designed to be useful in systems with a minimum water volume. The minimum water volume is based upon the chiller manufacturer's requirements, typically 3 to 6 gallons per ton when the temperature accuracy is critical. When chiller systems are properly sized, the chiller compressor will not short cycle. Without the proper amount of system water, the source temperature will be reached quickly and the compressor will shut off. Many chiller compressors can only start 3 times per hour. If the compressor is off and there is a demand for chilled water, the demand cannot be met because the compressor cannot turn back on.

1. Visually inspect tank for damage, which may have occurred during transit. If damaged delivering carrier must be notified. Please contact Elbi of America, Inc. prior to installation at **713-674-2900**.

2. Install storage tank in piping system using the fitting (threaded or flange) as an inlet. The opposite bottom side fitting (threaded or flange) as the outlet. We recommend installation of a drain valve at the bottom of the unit for blow down and clean out. At the very top fitting we recommend installing an ASME rated temperature & safety relief valve. An installation of a high capacity cast iron automatic air vent (Part # CIA-075) is recommended.

3. We recommend a general visual tank inspection on a yearly basis for possible corrosions or leaks.

4. **Prior to removal fittings or accessories it is recommended that the unit be drained complete and vented so it contains no internal pressure. Failure to follow this step could result in serious injury.**

5. **If tank is insulated-the bottom is left open for air circulation and proper condensation drain and evaporation.**