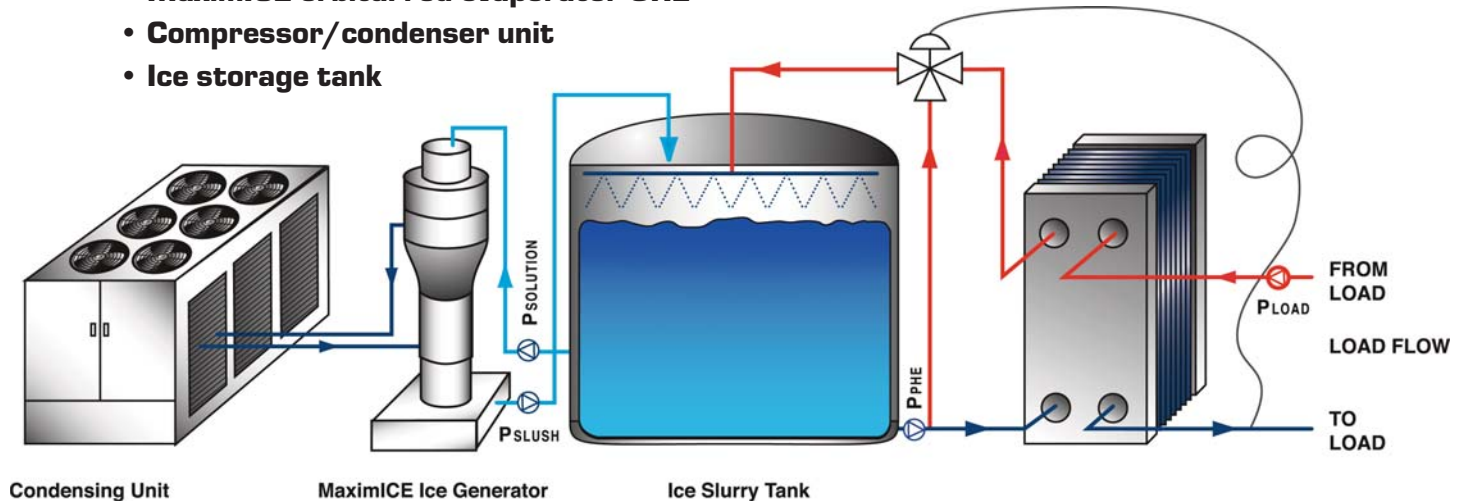


MaximICE® Slurry Ice System

The MaximICE® System consists of three major components:

- MaximICE orbital rod evaporator-ORE
- Compressor/condenser unit
- Ice storage tank



Process Description – for TES and Process Cooling

- A freeze depressant solution is pumped from the storage tank to the top of the MaximICE Slurry Ice Generator and is gravity fed through the tube side of the evaporator.
- Liquid refrigerant is supplied to the shell side of the evaporator from the condensing unit where it removes heat from the solution.
- As heat is removed, some of the water is frozen out of the solution, resulting in slurry ice which is either gravity fed or pumped to the top of the storage tank.

- Low temperature solution is pumped from the bottom of the tank to the cooling load.
- The warm solution is returned from the cooling load and is sprayed on the ice stored in the tank. This is accomplished using one or more spray nozzles evenly spaced to cover the ice surface. In the storage tank, the warm solution is cooled as the stored ice absorbs heat and provides a low-temperature heat sink to the cooling load.

Note: Normally, a plate heat exchanger isolates the storage tank from the cooling load.



APPLYING INTELLIGENT ENERGY

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