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Besides [Flake Ice Plant](#), the containerized [plate ice plant](#) is also commonly applied in the concrete cooling systems.

Plate ice introduction

Plate ice is a kind of irregular sheet ice with about 40×40mm~80×80mm in size, and 10 mm~15mm in thickness. The thickness can be adjusted according to ice-making time, and the maximum gauge is 25mm. It is a kind of thick and transparent ice which has good air permeability and long shelf life. Usually it is used for ice storage systems but is also for concrete mixing plants, chemical plants, mine, fresh vegetables, fishing and other aquatic insulations.

Plate ice making process

When refrigeration system begins operating normally, the water in the tank below is transported from the cold water tank to the cold water sprinkler by the cold water pump. It is then evenly sprinkled on the surface of the evaporator. Through the refrigerant cycle water is developed into plate ice, while some water which does not become ice returns to cold water tank below and waits for the next water cycle. After a period of time, the water cycle and refrigeration stop and water and hot refrigerant gas begin a heat exchange with the plate ice. The plate ice then loses adhesive force and ice drops into an ice crushing gadget due to gravitational force. After ice drops off, water temperature becomes low and it returns into water sink waiting for the next cycle.



Design condition

- Dry bulb temperature:33℃
- Wet bulb temperature:22℃
- Water inlet temperature:25℃
- Condensing temperature:35℃
- Evaporative temperature:-18℃
- Refrigerant:R22/R404A
- Power supply:380V/50Hz/3P
- Ice material: fresh water
- Running hours plate ice plant:24hours

Plate ice machine features

- Loosened by hot fluorine, the ice slides out after only 120 seconds.
- Ice making time can be set to adjust the thickness of the ice.
- It conforms to the sanitary security requirements by adopting stainless steel SUS304, aluminum alloy plate chip evaporator.
- Ice dump and water drainage function make ice more clean and transparent.
- It is convenient to install and maintain because of its modular equipment.



Small capacity plate
ice machine



Large capacity plate ice
machine