

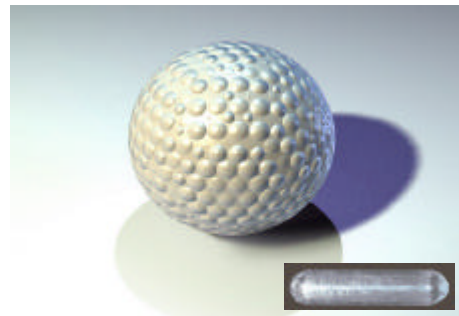
The Ice Spray Storage System

- The Ice Spray Storage system is an original Encapsulated Ice Storage System used to reduce peak capacity normally incurred by a building's HVAC system without affecting comfort levels in the building
- The Ice Spray Storage system is used in association with centralized chiller plants designed for large buildings or District Cooling networks
- The Ice Spray Storage system is the most simple reliable and cost effective system to store cooling energy in the HVAC field
- The Ice Spray Storage system affect the following parameters:
 - the designed chiller plant capacity which can be strongly reduced.
 - the electrical energy consumption which can be spread out over 24 hours.
 - the production reliability which is improved because two different energy sources are used.

The Ice Spray Storage System is made of The Ice Containers – The Tank – The Spraying system

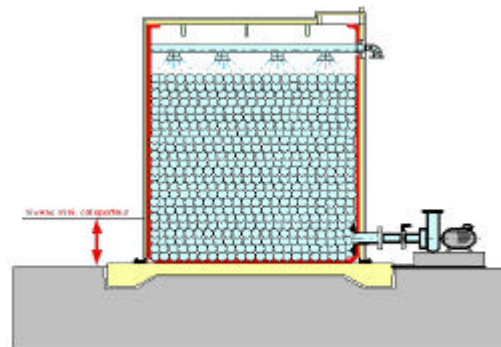
The Ice Containers

- The Ice Containers ICs are spherical containers made of high performance plastic polymer.
- The walls of the ICs are covered with a number of semi-spherical raised features specially designed to disturb the water-glycol coolant as it flows around them
- The ICs are factory filled with specially treated water. •An absorption body is put inside the ICs to absorb the water expansion during freezing.
- The Ice Containers are put in bulk into tanks on site.



The tank

- it is at the **atmospheric pressure** (not pressurized)
- made of **steel** or **concrete** construction.
- cylindrical rectangular or any other shape.
- a coolant reserve is located in the tank's bottom or below to balance the coolant inertia around the ICs.
- the water / glycol coolant pump is always located below the lower coolant level in the coolant reserve.
- installed above ground, below ground, indoors, outdoors or buried.



The spraying system

Upper headers are equipped with nozzles allowing the coolant to be regularly sprayed over the Ice Containers

