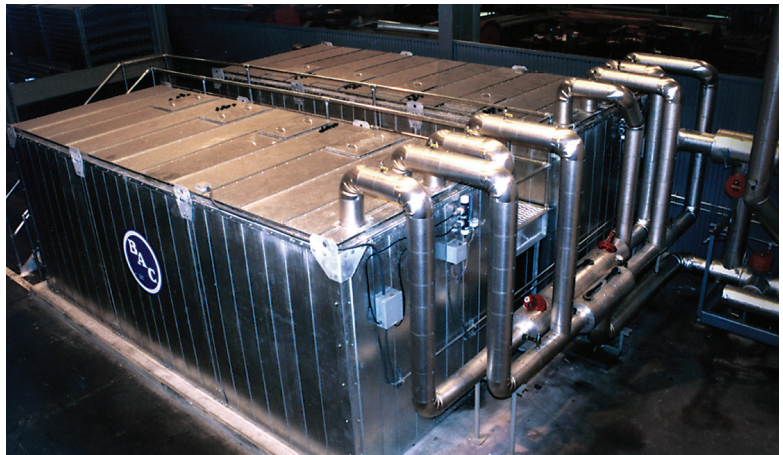
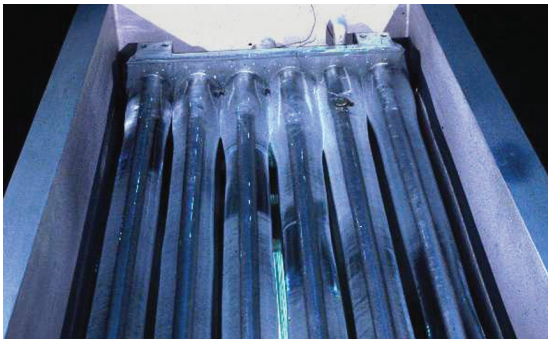


Campus Cooling with BAC Ice Thermal Storage

- ✓ Reduce Costs with Load Shifting and Demand Response
- ✓ Reduce Pipe Sizes and Pumping Energy with Colder Water Temperatures
- ✓ Reduce Storage Tank Size by 75% with Latent Storage

ICE THERMAL STORAGE



Available Products :

Thermal Storage Units

Custom Coils



> For more information on cooling with ice thermal storage visit www.BaltimoreAircoil.com/Campus



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CONTINUED >

Campus Cooling with BAC Ice Thermal Storage



> Johns Hopkins University

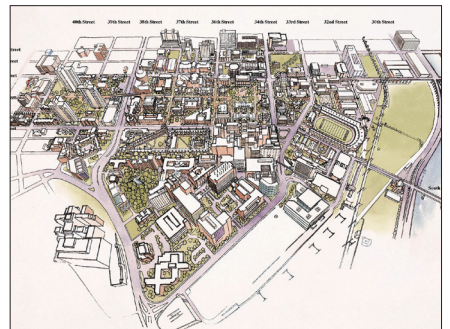
- ▶ The Johns Hopkins University Applied Physics Lab in Laurel, MD installed 8,400 ton-hours of ICE CHILLER® Thermal Storage Coils in underground rectangular tanks to cool the Steven Muller Building and adjacent office and lab buildings.
- ▶ **The ice thermal storage allows the Applied Physics Lab to save over \$150,000 per year on its electric bill.**



John Hopkins University Applied Physics Lab

> University of Pennsylvania

- ▶ The University of Pennsylvania central plant system consists of 21,033 ton-hours of ICE CHILLER® Thermal Storage capacity serving the campus chilled water loop.
- ▶ **The ice thermal storage system shifts 4,000 tons (3 MW) of electric demand to off-peak hours.**



The University of Pennsylvania Central Plant System

> Stevenson University

- ▶ Stevenson University installed four TSU-761M ICE CHILLER® Thermal Storage Units as part of an expansion that doubled the cooling capacity of this private college located in Baltimore, MD.
- ▶ The university designed the ice thermal storage system to provide 37°F (3°C) glycol for the 45°F (7°C) air system. This low temperature design utilized smaller piping and duct work, making it possible to avoid unnecessary renovations and reduce construction costs.
- ▶ **The system shifts 262 kW on-peak demand, saving \$44,700 in annual operating costs. The 20-year life cycle savings is more than \$460,000 compared to a conventional system.**



Stevenson University

> Guangzhou University City, China

- ▶ Located on an island in the Pearl River in Guangzhou China, Guangzhou University City contains ten university campuses serving 250,000 students.
- ▶ The campuses are served by three interconnected ice thermal storage plants totaling 253,248 ton-hours storage capacity, **making it the world's largest thermal storage system for campus cooling.**
- ▶ **The ice thermal storage system reduced peak electrical demand by 52,000 kW, saving the city \$26 million in electrical equipment cost and 28% in annual operating costs.**



Guangzhou University City, China



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