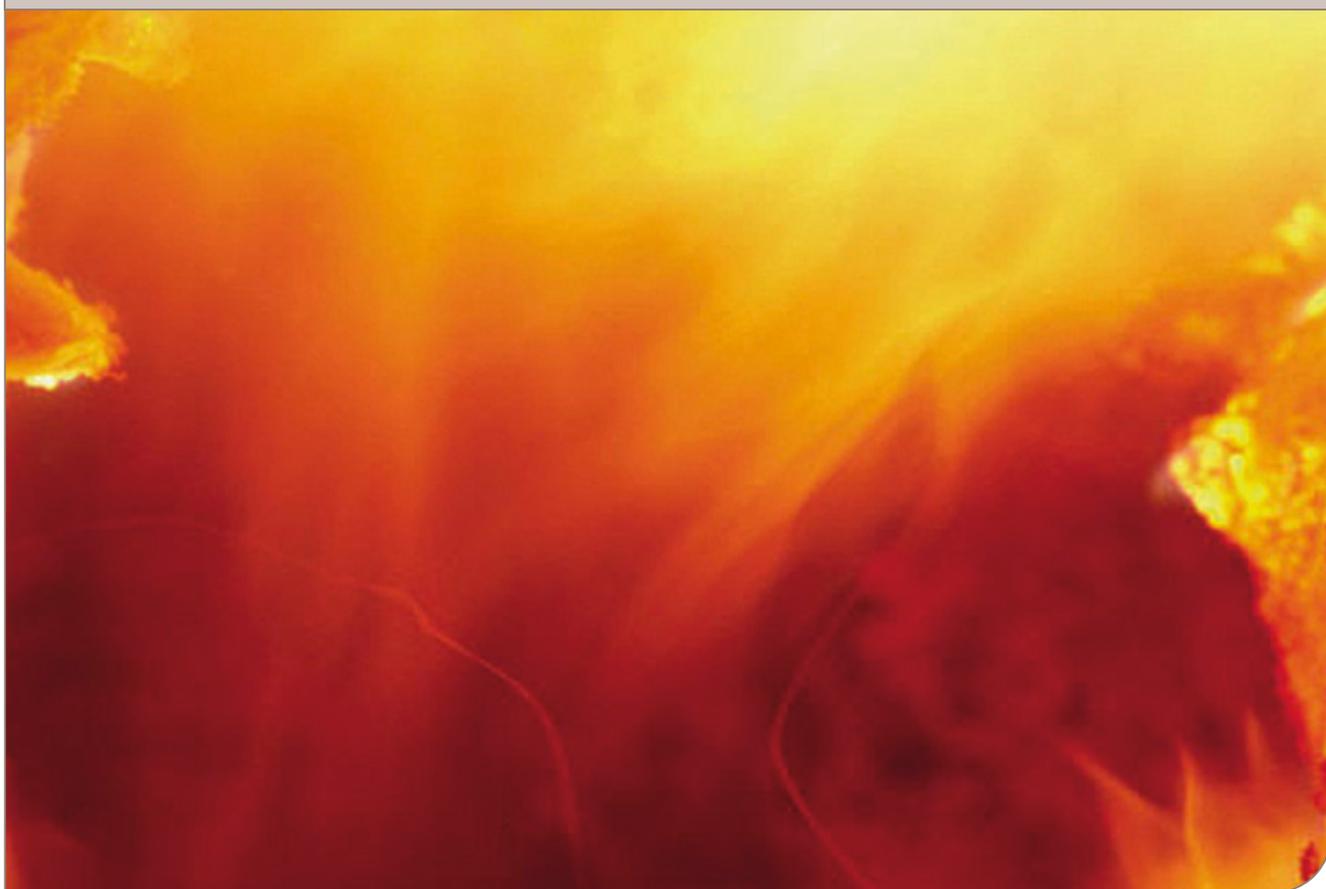




Thermal storage

A cost-efficient solution that saves space



There are two main reasons for using thermal storage – a system in which an ice storage tank allows ice to accumulate during one period, and then thaws it for use during another. The first reason is that thermal storage permits the use of a smaller chiller when demand for cooling varies during the day. The initial cost drops considerably when using the system in this way. The second reason is that energy can be purchased more cheaply during night or off-peak hours.



A modern investment

Thermal storage can be a good investment, since the return on investment can be as short as two years. Industries in which the demand for cooling varies are especially suited for thermal storage.

Alfa Laval can optimize heat exchangers for a thermal storage solution, thanks to innovative heat exchanger technology that divides the circuit between the ice storage tanks and the rest of cooling system.

Save energy and space

Alfa Laval works within your design parameters. A cooling system in Burj Khalifa, Dubai, for example, includes a thermal ice-storage facility that produces tons of ice slurry during off-peak hours (at night). The ice slurry, built up in a tank, stores the cooling energy that is later released with help of the heat exchangers. Pipelines distribute the cooling energy to the entire indoor air conditioning and tap water systems. This solution not only saves energy, it also requires only a fraction of the space needed for conventional cooling equipment.

“Thermal ice storage was new for everyone here, so Alfa Laval’s large experience in this field was one reason for choosing them. We put so much at stake in this project. We simply could not risk failing in any respect. Alfa Laval worked closely with Emaar’s project team to make sure things work. We are very proud of what we have accomplished together.”

Hadi Ismail, Director, Technical Services at Emaar,
United Arab Emirates

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com.