

PCM STORAGE IN COOLING TECHNOLOGY

FLUID-GUIDED SYSTEMS

for process cooling and air conditioning
in the temperature range from -63 °C to +20 °C (+84 °C)

PRODUCTS

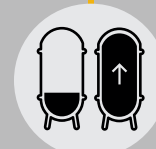
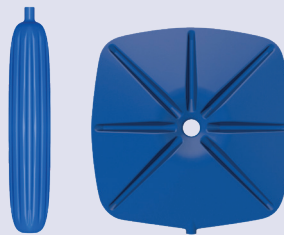
heatStixx HP, heatSel, heatSel XL

Advantages at a glance:

- Capacity expansion up to 5-fold
- Cost savings compared to glycol storage
- Reduction of operating costs
- PCM - high cycle stability

-63 °C to +84 °C
Up to 5 times storage capacity

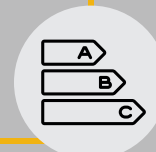
heatStixx
heatSel / XL



Increase in storage capacity



Reduction of the storage volume



Higher efficiency

AIR-GUIDED SYSTEMS

for cold storage and server rooms

PRODUCTS

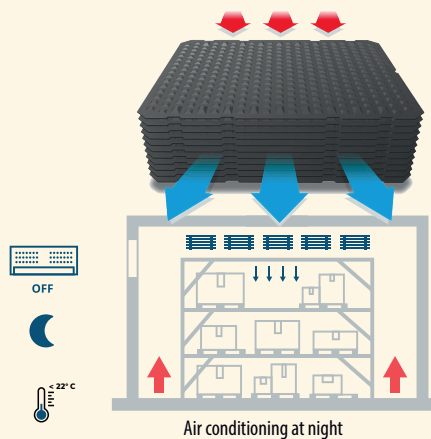
heatStaxx, heatStaxx Air

Advantages at a glance:

- Easy installation in high-bay warehouses
- Load management (peak shifting)
- Easily stackable and scalable
- Minimum pressure drop maximum heat transfer

-63 °C to +20 °C

heatStaxx Air



Peak-Shifting
Peak-Cutting



CO₂ savings



Reduction of operating costs

SPECIAL STORAGE TANKS

The special storage tanks are manufactured individually incl. heat or cold insulation.

Advantages at a glance:

- Storage capacity from 300 litres up to 100.000 litres
- Short delivery times
- Temperature range from -50 °C to +140 °C
- Installations for PCM objects

300 to 100.000 l
Be. temp. -50 °C to +140 °C



Extending service life



Simple recyclable

PCM's for COLD APPLICATION

for process cooling and air conditioning in the temperature range from -63 °C to +20 °C

Advantages at a glance:

- Capacity expansion up to 5-fold
- Cost savings compared to glycol storage
- Reduction of operating costs
- PCM - high cycle stability



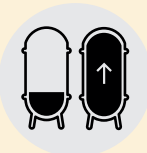
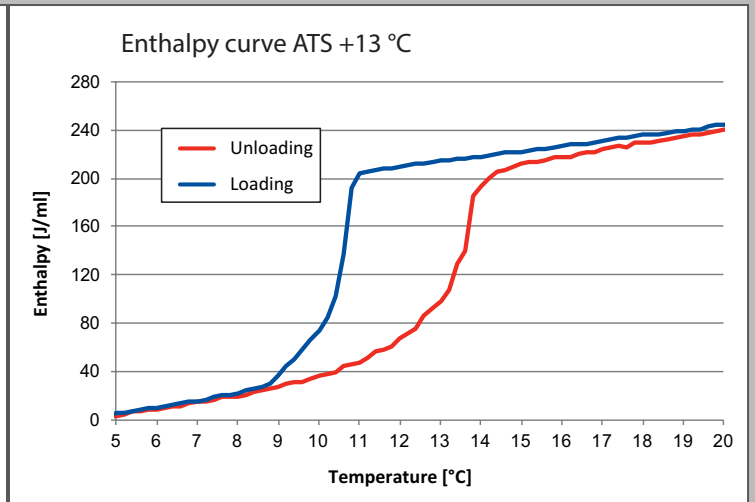
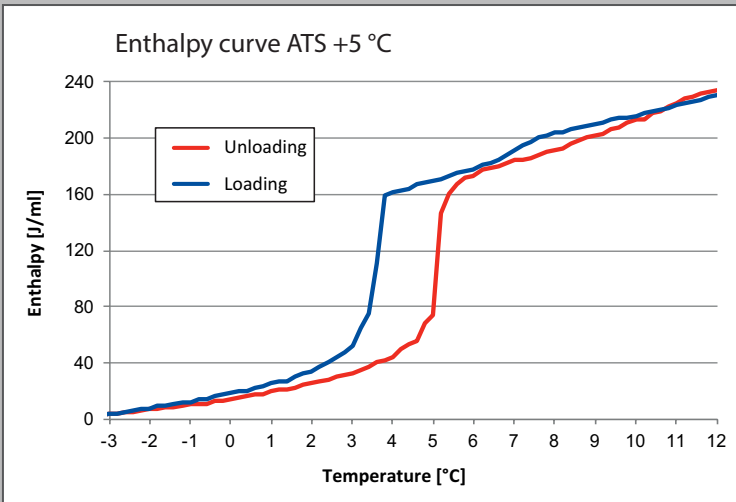
INSERT IN

heatStixx HP, heatSel, heatSel XL, heatStaxx and heatStaxx Air

POSSIBILITY OF USE

Cold storage, central cooling for refrigerated counters, cold packs and transport cooling

Physical parameters:	NEW ATS +5 °C Storage capacity 2.5-fold	Physical parameters:	NEW ATS +13 °C Storage capacity 3.0-fold
Melting temperature:	3 °C to 6 °C	Melting temperature:	12 °C to 14 °C
Solidification temperature:	2 °C to 4 °C	Solidification temperature:	11 °C to 9 °C
Required subcooling:	3 - 5 K	Required subcooling:	3 - 5 K
Heat of fusion (15 K):	180 kJ/kg - 234 kJ/Litres	Heat of fusion (15 K):	200 kJ/kg - 240 kJ/Litres
Density:	1,3 g/cm ³	Density:	1,2 g/cm ³
Specific heat:	4 kJ/kg K	Specific heat:	3 kJ/kg K
Maximum operating temperature:	30 °C	Maximum operating temperature:	70 °C



Increase in storage capacity



CO₂ savings



Peak-Shifting
Peak-Cutting



References



Data sheets PCM's



www.kraftBoxx.de



Praxisberichte · Kältetechnik **Professional article - DE**

Photovoltaik und Latentwärmespeicher
**Nachhaltige Kälteversorgung
in der Großschlachtereier**



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POWER TO HEAT SYSTEMS



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