



Sabroe high-temperature hybrid heat pumps

Now with up to 120°C temperature output



We know that your facilities need high-temperature input. With the rising costs of primary energy and push for cutting CO₂ emissions, we make your decarbonisation journey easier with our unique, patented, hybrid high-temperature heat pump technology.

The ammonia-water (NH₃ / H₂O) Sabroe hybrid heat pump range utilises unique, patented technology, coupled with standard and proven refrigeration components and compressors.

Our range includes:

- HyePAC
- HyePAC-D

Sabroe reaches high temperatures with natural refrigerants

Heat pumps are designed to transfer heat, rather than generate it, enabling a much higher conversion of electricity to useful process heat. And now, with ammonia-water mixture refrigerants, we can reach temperatures up to 120°C - while meeting sustainability goals and keeping costs low.

Our high-temperature hybrid heat pumps are the ideal solution for utilising low-temperature waste heat and turning it into high-temperature useful output.

Benefits of choosing hybrid technology

- High temperature capability (up to 120°C)
- Lower operating costs
- High efficiency and high coefficient of performance (COP) range of 4-8
- Low operational pressure - below 25 bar
- 0 global warming potential (GWP) and ozone depletion potential (ODP)
- Capable of utilizing high-temperature sources (up to 90°C)



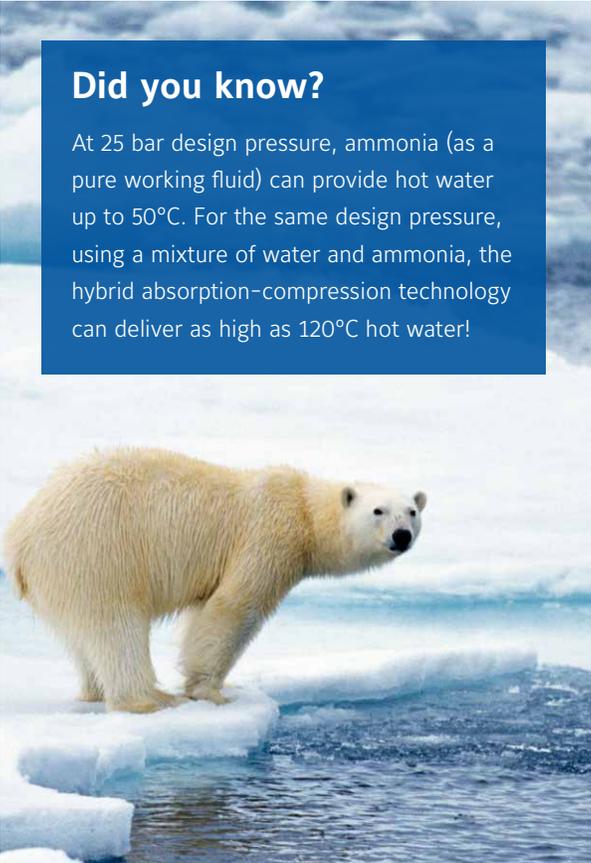
The power behind **your mission**





Did you know?

At 25 bar design pressure, ammonia (as a pure working fluid) can provide hot water up to 50°C. For the same design pressure, using a mixture of water and ammonia, the hybrid absorption-compression technology can deliver as high as 120°C hot water!



There are single-stage (HyePAC) and two-stage (HyePAC-D) hybrid heat pumps available to choose from, one of which will be the best fit for your total needed temperature lift. The mixture of water and ammonia can be adjusted to recover waste heat at high temperatures, which can be up to 90°C.

The future of green HVAC

Using a mixture of ammonia and water, a natural and environmentally-friendly refrigerant, Sabroe high-temperature hybrid heat pumps provide green technology that paves the way for the carbon-neutral operations and industrial processes essential for virtually every enterprise.

Benefits of using Sabroe green technology:

- Factory-assembled, pre-tested packaged units based on Sabroe reciprocating compressors
- High safety and outstanding reliability
- Exceptional COP and outstanding part-load performance
- High efficiency due to optimum load structure



Food and beverage



Utilities



Distribution and storage



High-tech



Chemical and petrochemical



Pharma and healthcare



Process industries



Sports and leisure



District heating

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