

SABROE HeatPAC™ heat pumps

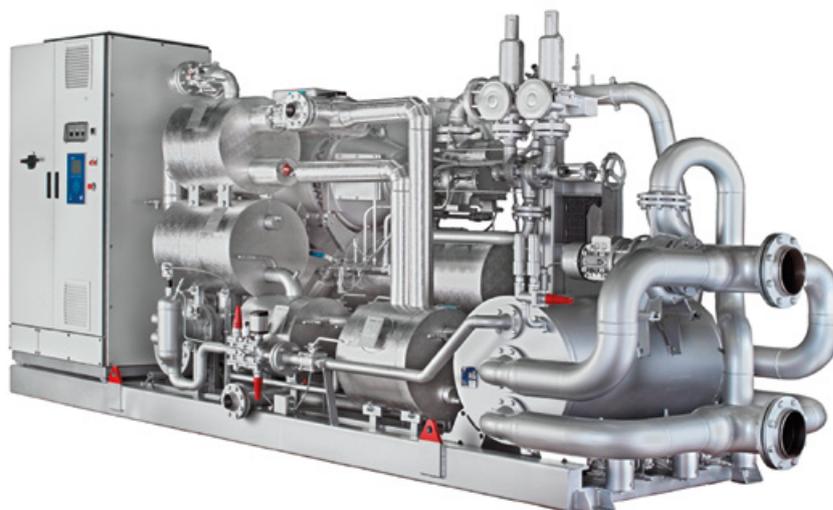
Ammonia-based heat pumps using a screw compressor, with a capacity of up to 1800 kW

HeatPAC units are extremely compact heat pumps based on ultra-reliable SABROE high-pressure screw compressors, using ammonia as refrigerant.

These highly customisable integrated units, featuring an uncomplicated flooded evaporating system, provide exceptional heat pump capacity from the smallest possible footprint, and with only a very small refrigerant charge. They are designed to provide a cost-effective way to tackle needs for cooling and heating at the same time, providing an extremely high coefficient of performance (COP).

SABROE HeatPAC heat pumps are the ideal solution for effectively exploiting low-temperature waste heat, and turning it into hot water (up to 90°C), using only a minimum of electrical energy.

SABROE HeatPAC heat pumps provide considerable scope for customisation to meet specific customer requirements.



HeatPAC 157 HR

Advantages

Factory-assembled, pre-tested packaged units based on SABROE screw compressors world-renowned for their reliability

Integrated configuration weighs less, and has less than half the footprint of bespoke heat pump designs

Indirect cooling and an uncomplicated flooded evaporating system, using natural ammonia (R717) only

Exceptional COP and outstanding part-load performance

Refrigerant charge 50% smaller than with conventional heat pumps, because of special condenser/evaporator design

Benefits

Easy pre-commissioning makes installation and running-in both faster and cheaper. Factory acceptance tests (FAT) available as an option

Low installation costs. Easy to mount even in confined spaces or unconventional locations

Greater safety and outstanding reliability

Low operating costs

Higher output per unit kW/kg refrigerant, lower unit cost and lower installation costs

Options

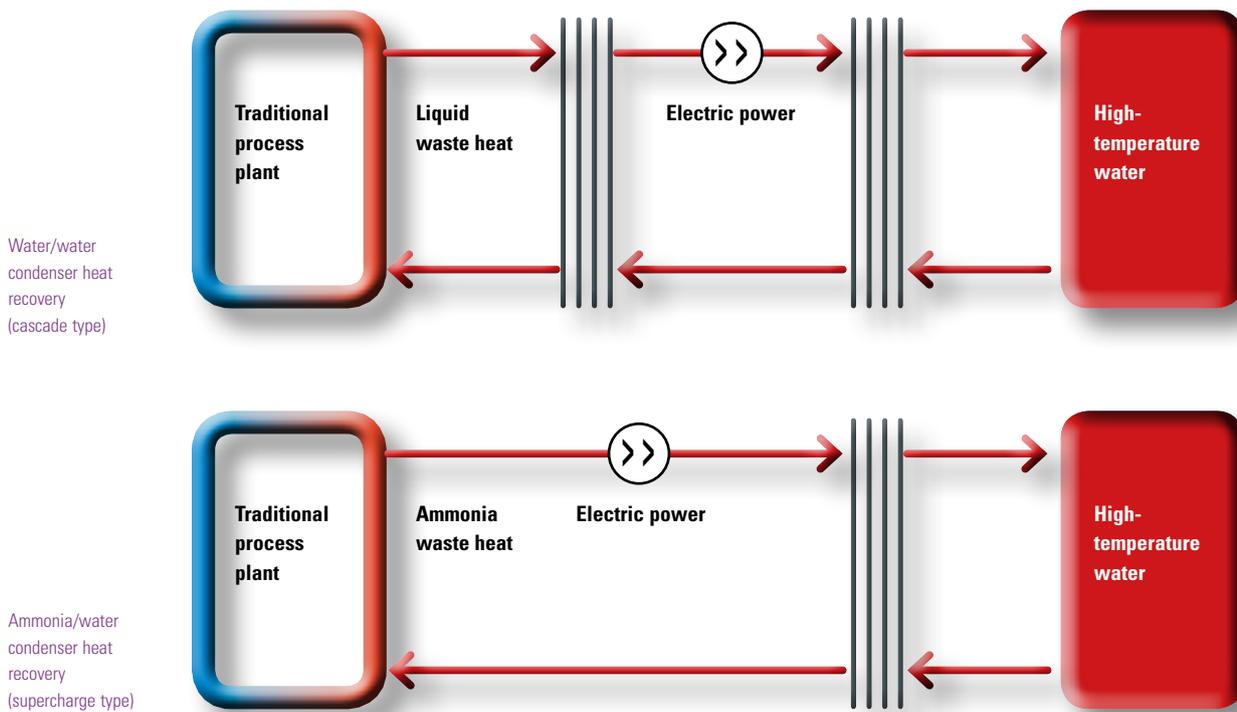
- Cascade evaporator
- Control panel mounted separately
- Factory acceptance tests (FAT), customer-witnessed.



Compliance

All HeatPAC heat pumps are fully compliant with appropriate major international design codes and the specifications laid down by the most common classification societies.

Approval in accordance with other technical requirements, specific national legislation or other classification societies' requirements is available on request.



The HeatPAC 157 HR is a versatile heat pump that can cope with a wide range of operating conditions. These units are particularly efficient under part-load conditions due to the variable speed drive (1000–6000 rpm) fitted as standard.

Each unit is specially configured to comply with the specific set of operating conditions, in order to ensure the most effective exploitation of the waste heat available.

HeatPAC 157 HR											
	Cold side				Hot side					Power motor	
	Temperature in °C	Temperature out °C	Flow m ³ /h	Cooling capacity kW	Temperature in °C	Temperature out °C	Flow m ³ /h	Heating capacity kW	kW	COP	
Water	40	35.9	300	1422	Water	40	85	34.8	1792	407	4.4
Water	30	26.8	300	1107	Water	40	85	28.2	1453	381	3.8
Water	20	17.6	300	818	Water	40	85	22.0	1121	335	3.3
Water	10	8.3	300	588	Water	40	85	16.5	852	290	2.9

Capacities are nominal at 6000 rpm. Specific capacity must be calculated for actual running conditions. Available on request.

All information is subject to change without notice

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