

# ago calforma

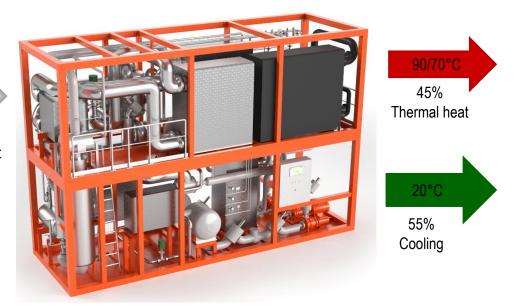
The industrial heat pump that hardly needs any operating power

# The ago calforma works according to the principle of a heat transformer



100 % Industrial waste heat

> <1 % Electricity



#### Technical data

The **ago calforma** is designed and built according to customer's needs:

- Waste heat temperature: approx. 45 65°C
- Waste heat output: 500 kW to 4 MW
- Heating temperature: approx. 70 90 °C
- Thermal output: 30 % to 50 % of the waste heat output (temperature-dependent)
- Installation is possible indoors, outdoors or in a container.

#### Efficiency

- In Germany, plants using industrial waste heat are granted subsidies of up to 40 %.
- The ago calforma does hardly have any moving parts  $\rightarrow$  high reliability and low maintenance costs.
- Operating costs for power unit, cooling and maintenance are usually under **1 ct/kWh** of the useful heat.
- Payback periods are mostly far below 5 years.

#### Ecology

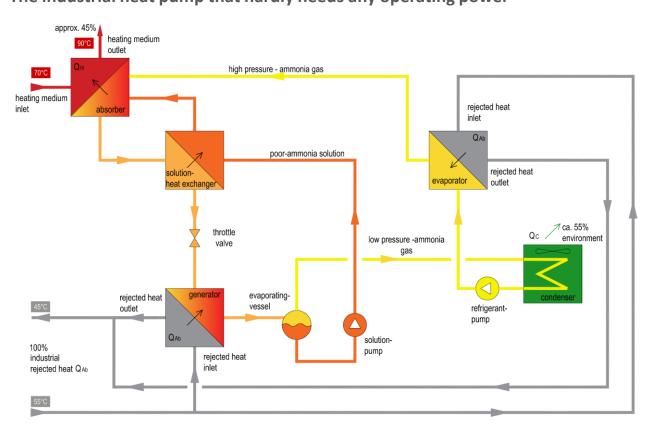
- Saving fossil energy and CO<sub>2</sub> emissions by recovering heat from industrial waste heat.
- The ago calforma works exclusively with natural media (ammonia and water).

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By supplying the generator with industrial waste heat vaporous ammonia is being separated from the ammonia-rich solution. The residual ammonia-poor solution is pumped from the low pressure level to the high pressure level and is preheated in an internal heat exchanger through heat recovery. The vaporous ammonia is condensed in a condenser emitting heat to the environment. The liquid refrigerant is then pumped from the low pressure level to the high pressure level. It evaporates in an evaporator which is supplied with further industrial waste heat. In the absorber the vaporous ammonia is dissolved in the ammonia-poor solution. Thus, heat of solution is released which is emitted to the heating medium. The ammonia-rich solution is afterwards cooled down in the internal heat exchanger and is relieved to the low pressure level by a butterfly valve.

#### Heat sources may be:

- Waste heat from air compressors and chillers
- · Machine cooling, process cooling, product cooling
- Waste gas condensation or vent condensation
- etc.

#### **Project phases**

- We analyze your heat flow rates if interested
- We support you in applying for subsidies
- We design and take care of the plant's integration
- We maintain and service the plant

### Contact us

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