



Increasing Energy Efficiency Reducing CO₂ Emissions

High-Efficiency Industrial Heat Pumps up to 165° C

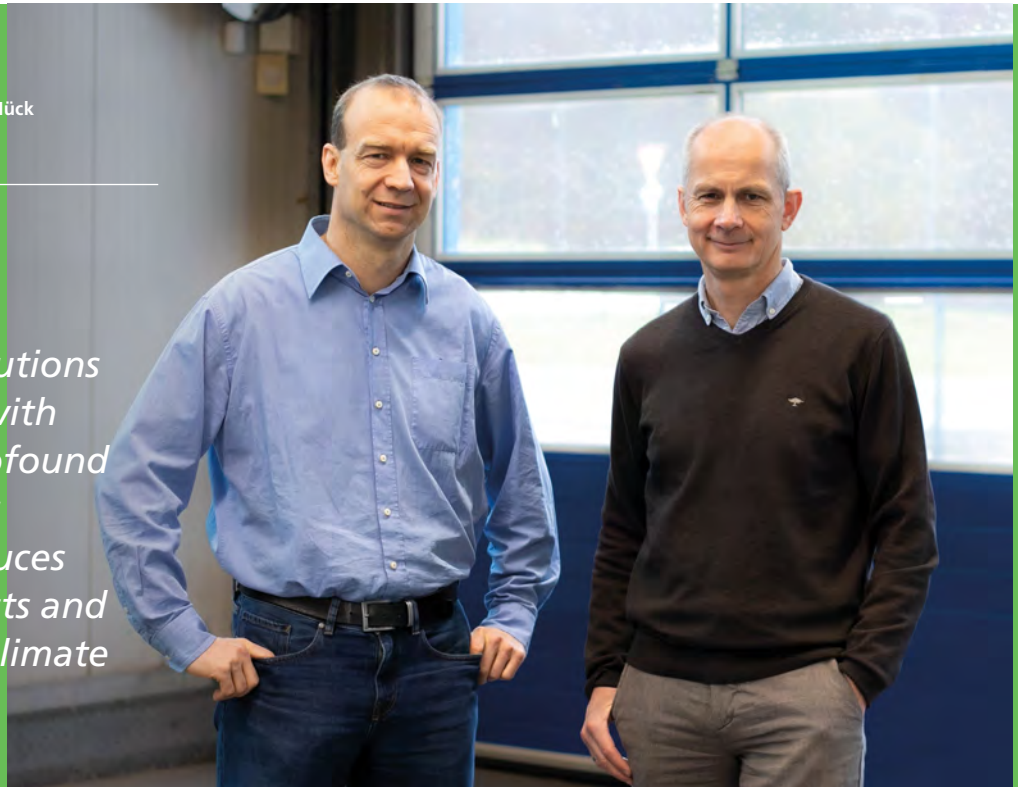
Industrial Heat Pumps

The Challenge of Climate Change as an Opportunity

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We develop solutions for the future with passion and profound know-how. Our technology reduces your energy costs and contributes to climate protection.



Climate change is a major challenge for the industry, but at the same time offers an opportunity to make processes more sustainable. Our original vision has always been to reduce energy consumption and CO₂ emissions in the production process.

Our approach is to convert industrial waste heat into high-quality process heat. More than 50 years of experience in the development of piston engines have helped us to transform this vision into an innovative and marketable product: With temperatures of 165° Celsius and higher, our systems produce higher temperatures and are more efficient than conventional industrial heat pumps.

With our know-how from automotive and refrigeration technology, we will support you in integrating our heat pumps into your production environment. We offer individual advice and accompany you through all project steps up to commissioning and beyond, including service, maintenance and remote monitoring.

High Quality Process Heat

Up to 165° Celsius and Higher

The global demand for industrial process heat is steadily increasing. Currently, more than 80 percent of such heat is generated by fossil fuels, thereby emitting millions of tons of CO₂ into the atmosphere.

Until now, industrial heat pumps were limited to initial temperatures below 100° Celsius, whereas a large part of the process heat demand requires temperatures between 100° and 200° Celsius.

To meet this demand, SPH has developed industrial heat pumps generating temperatures up to 165 °Celsius and, in the future, we anticipate development beyond the 200° Celsius mark. All our systems are based on a specially developed high-temperature piston compressor in combination with innovative process technology.



Economic Efficiency

Through Energy Efficiency

Range of Products

We offer heat pumps up to 165° Celsius (up to 200° Celsius on request) with capacities ranging from 400 kW to several MW in the following versions

1 Water – Water

2 Water – Steam

3 Steam – Steam

4 Two-stage for very high temperature lifts

The SPH heat pump can be easily integrated into your production environment and automatically adapts to your heating requirements thanks to its flexible mode of operation.

Features

All SPH industrial heat pumps possess

- High-temperature optimized design
- PLC control, including cloud connection and smart grid capability
- Stepless capacity control between 30 and 100 percent
- Piston compressor with 400 kW to 1 MW per compressor
- Highly efficient and robust heat exchangers



Climate Protection

Through Reduction of CO₂ Emissions

Industrial heat pumps manufactured by SPH are a unique solution in the field of high-temperature heat pumps. They can be used in many industries, applications and industrial processes.

Reduce your CO₂ emissions and energy costs, and increase your energy efficiency with an industrial heat pump from SPH!

This is how you benefit from an SPH industrial heat pump:

- 1** Reduction of primary energy demand and energy costs
- 2** Economic efficiency through energy-efficient processes
- 3** 100 percent CO₂-free process heat in combination with green electricity
- 4** Decoupling from fossil fuels
- 5** Easy integration into existing production environment
- 6** Proven technology for more than 30 years



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