

SOKRATHERM® GmbH Energy and Heat Technology

Over 45 years of experience with power and heat

The medium-sized company SOKRATHERM was founded in 1977 by engineer Hermann Meinhold in Hiddenhausen (Germany) and has been active in the field of energy and heat technology ever since. Today, SOKRATHERM is one of the leading manufacturers of combined heat and power (CHP) units, which efficiently and eco-friendly produce heat and electricity using the cogeneration principle.

In 1992, SOKRATHERM founded a subsidiary in Nordhausen and established its own production plant there in 1996. As part of its continuous expansion, the production and office space was doubled in 2008 and further expanded in 2012 and 2018. Today, the site size is roughly 6,000 m² and houses the CHP unit production, test sites, switchgear cabinet construction and materials management, as well as departments for design, purchasing, documentation and service, all supported by paperless, digital processes.

At the head office in Hiddenhausen, administration, sales, and CHP project implementation are located in a 1,000 m² office building constructed in 2020. Together with its sales offices and international sales and service partners, SOKRATHERM has achieved steady growth. The company now employs around 150 people, including approximately 10 trainees. The transition of the family business to the next generation began with the entry of engineer Johannes Meinhold into management in 2014.

In the early years, when cogeneration units were typically assembled on the construction sites, SOKRATHERM was already providing compact CHP units: Ready-to-connect systems complete with a sound-absorbing case and integrated switchgear cabinet. The product range has continuously grown from the 50 kW class to higher capacities: in 1993, SOKRATHERM became the market leader in the 100 kW class; it introduced a compact CHP unit in the 200 kW class at the EXPO 2000 world exhibition, followed by the most compact CHP unit in the 400 kW class in 2007 and the 500 kW class in 2013. In 2024, the company presented the most powerful compact CHP unit to date, with an output of 710 kW.

All compact CHP units of the 400 kW class and above are available with an SCR catalyst fully integrated into the sound-absorbing case. In 2020, SOKRATHERM entered the megawatt class with the commissioning of a newly developed 1,000 kW genset. In late 2022, the first gas engine compressor unit for generating compressed air and heat was put into operation at an industrial company in southern Germany.

SOKRATHERM also offers large heat pumps, which are fully integrated into the company's control and remote monitoring system. In all SOKRATHERM units, the control system, based on an industrial PC, ensures fully automatic, unattended operation, seamless internet-based remote monitoring and easy integration into superordinate control systems such as building management systems (BMS) or virtual power plants.

Thanks to high product quality, continuous innovation and well-designed maintenance concepts, SOKRATHERM's compact CHP units enjoy an excellent reputation. This is evidenced by consistently high customer satisfaction, measured annually as part of the company's regularly certified quality management system.

Numerous press reports and awards highlight our innovative CHP projects. SOKRATHERM's mobile CHP unit was nominated as an "Official Project of the EXPO Initiative OWL" and the company has received numerous awards such as the "Special Award for the Environment 2013" from the Lower Saxony Ministry of the Environment, the first "German TGA Award 2014", recognition as "CHP Plant of the Year" (2009 and 2014), the DGNB Platinum Award (2014 and 2021), and the "Contracting Award" (2018 and 2024). More than 2,000 CHP units have been delivered to satisfied customers across over twenty European and South American countries.

SOKRATHERM's clients include industrial companies, hotels, contractors, energy suppliers, and municipalities operating hospitals, retirement homes, and swimming pools. The key advantages of SOKRATHERM's compact CHP units are:

- Excellent efficiency rates of 90 to over 104%, providing optimal utilization of fuel energy and minimizing energy costs.
- Cost-efficient installation, even in tight spaces, due to their compact design.
- Reduced integration costs thanks to the CHP's integrated switchgear cabinet, which minimizes on-site wiring efforts, and triple vibration damping, which often eliminates the need for a costly baseplate.
- Outstanding sound insulation, making CHP units suitable for installation in sound-sensitive locations such as hotels, hospitals, and nursing homes.
- Convenient, unattended operation through fully automatic switchgear with remote monitoring and control.
- High reliability, leading to low operating and maintenance costs, achieved through the use of carefully selected original serial parts for production and maintenance, ensuring high quality and long-term availability of spare parts.
- Superior environmental protection, with an integrated catalyst and self-calibrating lambda control ensuring gas engine operation within the lowest emission range.

SOKRATHERM's product range includes:

- CHP units with power outputs ranging from 50 kW to 1 MW, fueled by natural gas, propane or renewable sources such as biomethane, sewage gas, biogas, landfill gas and hydrogen.
- Heat pumps with thermal outputs from 50 kW to 700 kW, integrated with controls optimized for CHP and heat pump operation.
- Turnkey heating centers featuring one or more CHP units, heat pumps, boilers, buffer storage and superordinate control with up to 4 MW total electrical output.
- Gas engine compressor units for generating 7 to 30 m³ of compressed air at various pressure levels, along with 100 to 500 kW of heat.
- Special configurations, such as emergency power options, "hot cooling" for absorption chillers, steam generation, or thermal oil heating.
- Sophisticated operation and maintenance concepts in which the operator can be economically integrated.