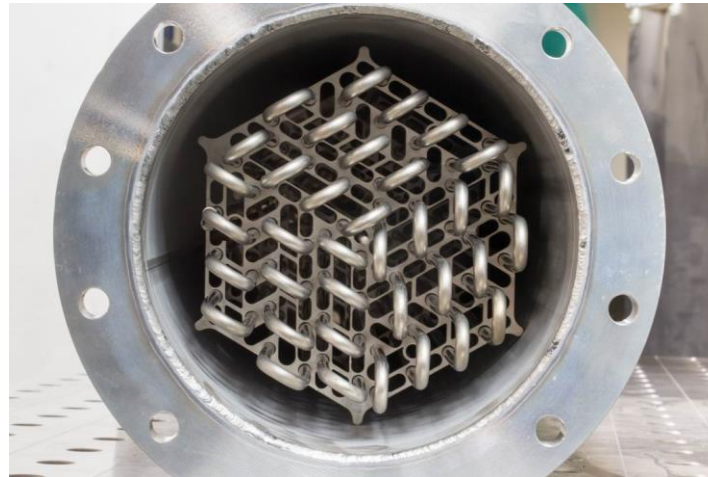


SIEKERKOTTE®

ELEKTROWÄRMETECHNIK



Power-to-Heat

An economic storage and consumption solution for renewable energies

AHK Unternehmerreise: „Eigenverbrauch und Speicherung von erneuerbaren Energien“,

05.11.2019 Barcelona, Spanien

Siekerkotte GmbH & Co.KG - Wöltje Dunkake - Managing Director

About Siekerkotte



- Founded **1989** by H.Siekerkotte in Herford, Germany
- Since 2014 part of the Schniewindt industrial group, that goes back 190 years in industrial history!
- Sales 2018: 2,5 Mio € - 22 employees

Quality Management

- QM according to **DIN ISO 9001:2015**
- Certification of company
 - acc. to **DIN EN ISO 3834-3 / DIN EN ISO 3834-2**
 - acc. to **AD2000 Merkblatt HP0**
- Project individual certification acc. TÜV, DNV GL, etc.

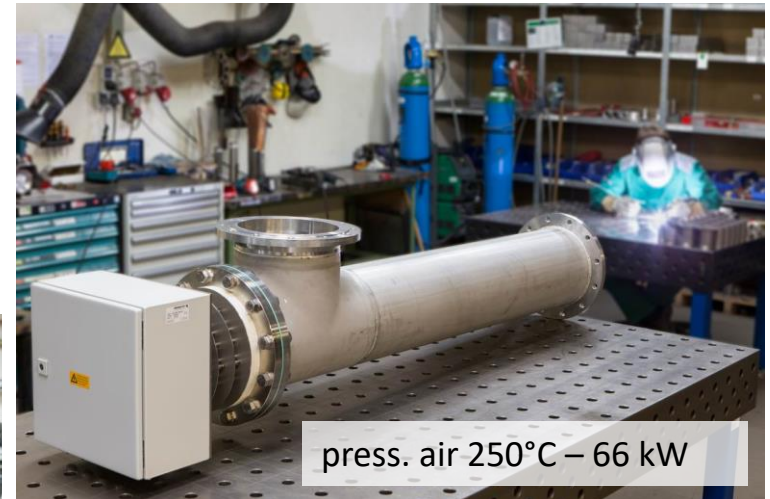


Customized solutions

for the electric heating of e.g. ...

- water (demineralized, H₂O-glycol etc.)
- oils
- air / gases
- salt etc.

In the performance range
of **0,5 kW – 20.000 kW/ pc.**



Industrial markets



Industrial electric heating technology means almost always a process specific engineering of a heater. With years of experience in the industries that we serve we have acquired a profound knowledge of our customers environment and process realities. This insight is the basis of every new heating solutions by Siekerkotte!

Mechanical Engin.	Process Engineering	Marine/ Offshore	Pharma/ Food
<ul style="list-style-type: none"> ■ Indust. furnaces ■ Filter technology ■ Sterilisation tech. ■ Steam generators ■ Water heater ■ Indust. parts cleaner ■ Test facilities ■ etc. 	<ul style="list-style-type: none"> ■ Chemical indust. ■ Biogas plants ■ Waste gas treat. ■ Waste water tech. ■ Technical gases ■ Power plant tech. ■ Power-to-heat ■ etc. 	<ul style="list-style-type: none"> ■ Fluid engineering ■ Oil heater ■ Heavy oil preheater ■ Water heater ■ etc. 	<ul style="list-style-type: none"> ■ WFI-conditioning ■ Sterile air heater ■ Bottling plants ■ Brewing technology ■ High-purity water treat. ■ etc.

Power-to-Heat

An economic storage and consumption solution for renewable energies!

- An increasing capacity of renewable energies (solar, hydropower, wind, biogas) needs a matching demand for its peak performances!
- 40% of the end energy consumption is for heating!

Core advantages of Power-to-Heat as a solution!

- Power-to-Heat - based on electric resistors – is an energy efficient way to produce heat:
x kW electric energy = x kW thermal energy
- Proven technology since more than 60 years
- Low maintenance cost - emission free – good control properties – directly in the medium

Siekerkotte references solutions in the following exemplary applications:

- District Heat: Siekerkotte has supplied several MW heaters to power distributors that use the heaters as an addition in their heat production for a district heating grid.
 - Currently we are building a 8,5MW hybrid solution that is automated with a large battery.
- Industrial consumer: Electric heater as a single or add-on solution for process heating
- Stadiums: Electric heater as a power storage capacity for power distributors

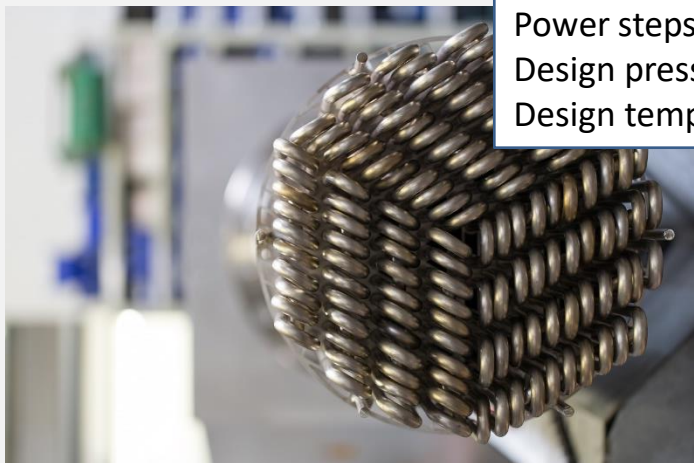
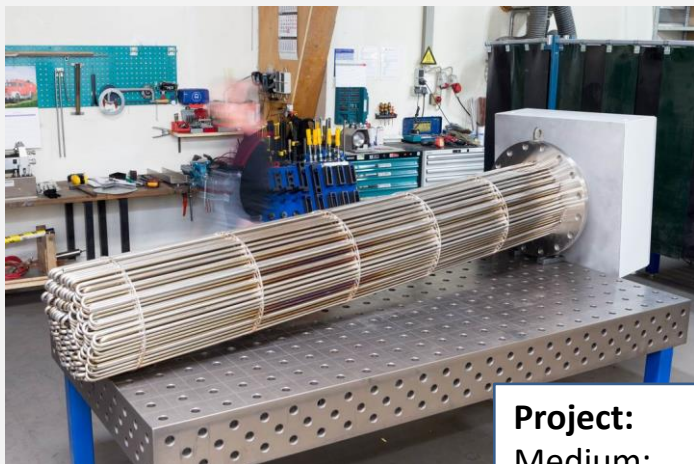
Reference projects (exemplary)



Project:	Power-to-Heat, Germany
Medium:	Water
Power:	2000 kW
Power steps:	8
Design pressure:	atmospheric
Design temp.:	95°C



Reference projects (exemplary)



Project:	Power Plant, Germany
Medium:	Water
Power:	1000 kW
Power steps:	13
Design pressure:	10 bar/g
Design temp.:	95°C



Reference projects (exemplary)



Project:	Exhaust Air Purification, China
Medium:	Air
Power:	250 kW
Power steps:	1
Design pressure:	atmospheric
Design temp.:	240°C



Project:	Drying Furnace, Turkey
Medium:	Air
Power:	180 kW
Power steps:	1
Design pressure:	atmospheric
Design temp.:	570°C

Reference customer (exemplary)

		
		
		
		
		...

Siekerkotte objectives in Spain



- Preferred partnership models with local partners that represent the company and its technology in Spain
- Support for the local partner comes directly from Engineering units in Herford, Germany
- In case of technical and commercial feasibility partnership with local producers
- Target market: Power-to-Heat, Industrial Engineering, Process Industry
- Preferred partner has the necessary experience on target markets and/or has an existing sales channel with complementary products e.g. pumps, HVAC, power plants supply etc.



Vielen Dank für Ihre Aufmerksamkeit!

Siekerkotte GmbH & Co.KG

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