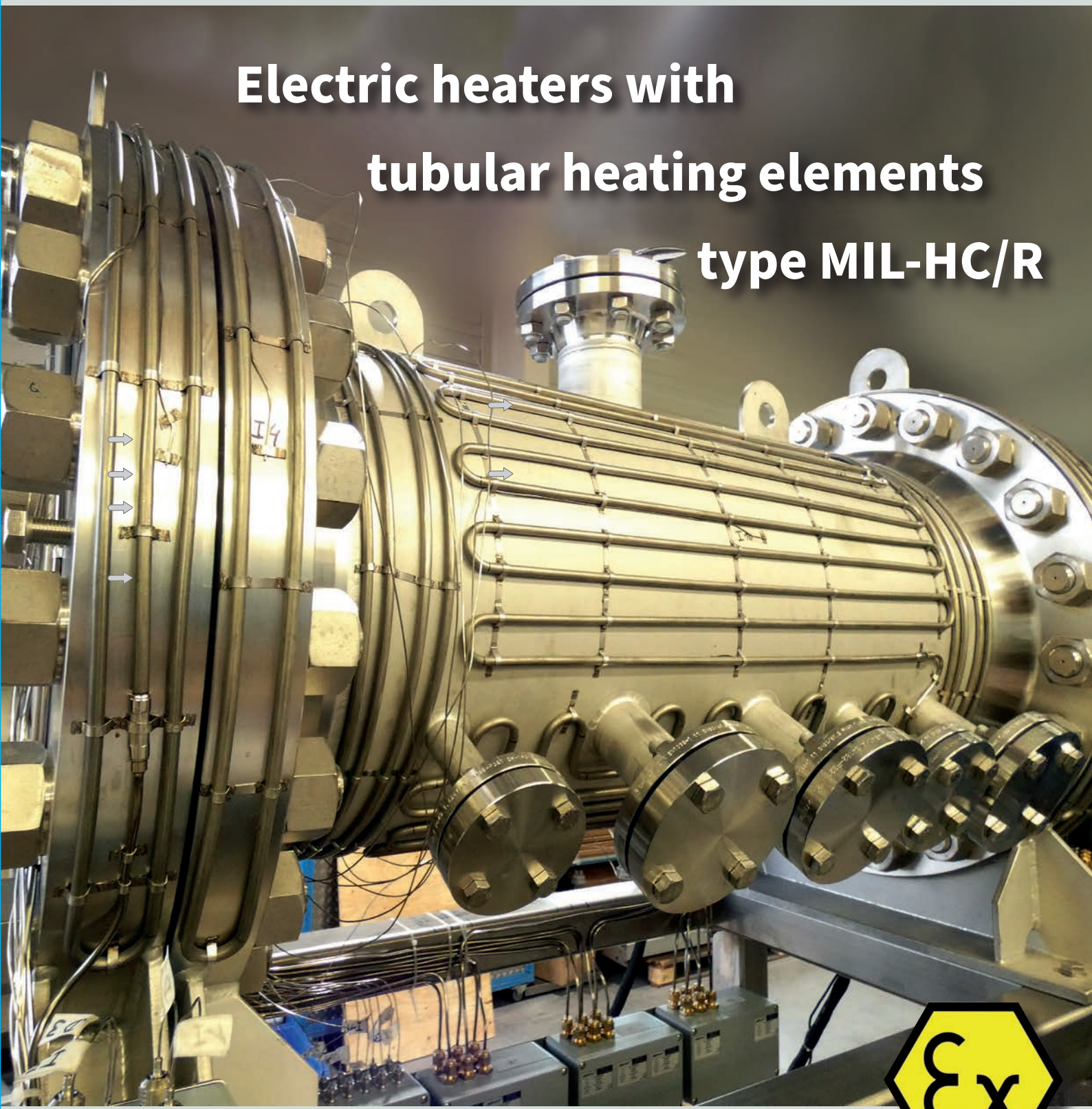
ISOHEAT®

Qualität
Made in Germany

High Tech Engineering



Electric heaters with tubular heating elements type MIL-HC/R

Ex

ISOHEAT®

www.isoheat.de

The brand name for customized electric heating technology

Electric heaters
with tubular heating elements, type MIL-HC/R

Application:

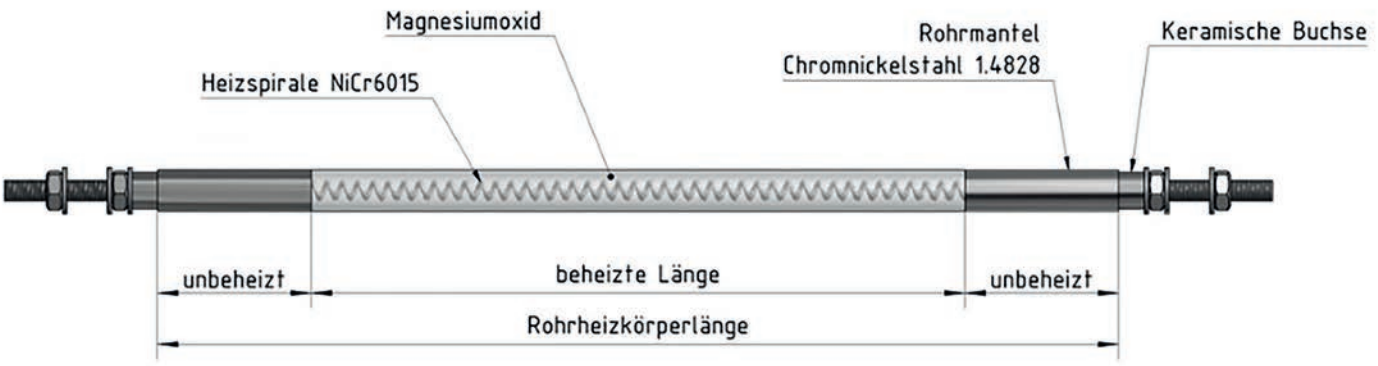
For heating element temperatures up to 800°C.
MIL-HC/R series tubular heating elements are used for heating solids, liquids, or gases in industrial applications.

Areas of application:

- Plant engineering
- Chemical industry
- Petrochemical industry
- Mechanical engineering
- Research and development
- etc.

Structure

The heating element consists of an outer metal tube containing a heating coil made of resistance wire. High-purity magnesium oxide provides electrical insulation between the heating coil and the outer tube.



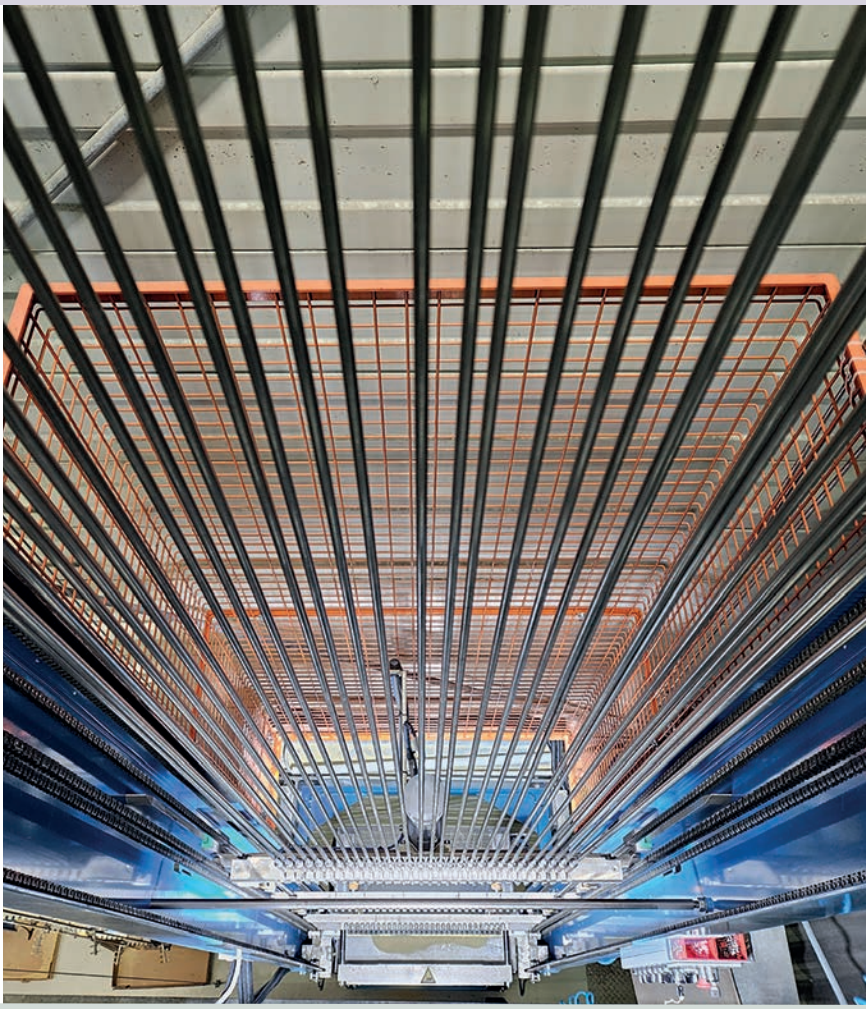
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Examples of applications





CNC bending machine



Filling systems up to 6m

Technical Data:	
Outer sleeve	Stainless steel 1.4828/Alloy 825
Insulating layer	Magnesium oxide
Inner conductor (resistance wire)	Nickel-chromium alloy
Rated voltage	Up to 500 V AC
Bending radius	2x outer diameter
Nominal power max.	up to 1000 W/m depending on operating conditions
Radiator diameter	Ø6.8 / 8.5 mm
Protection class	I
Protection type	IP 67 (waterproof)
Max. heating conductor temperature	800°C
Unheated zone	Customized
Connection technology	Threaded bolts, pins, flat plugs, etc.

Examples of connection technology



Threaded bolt



Pin connection



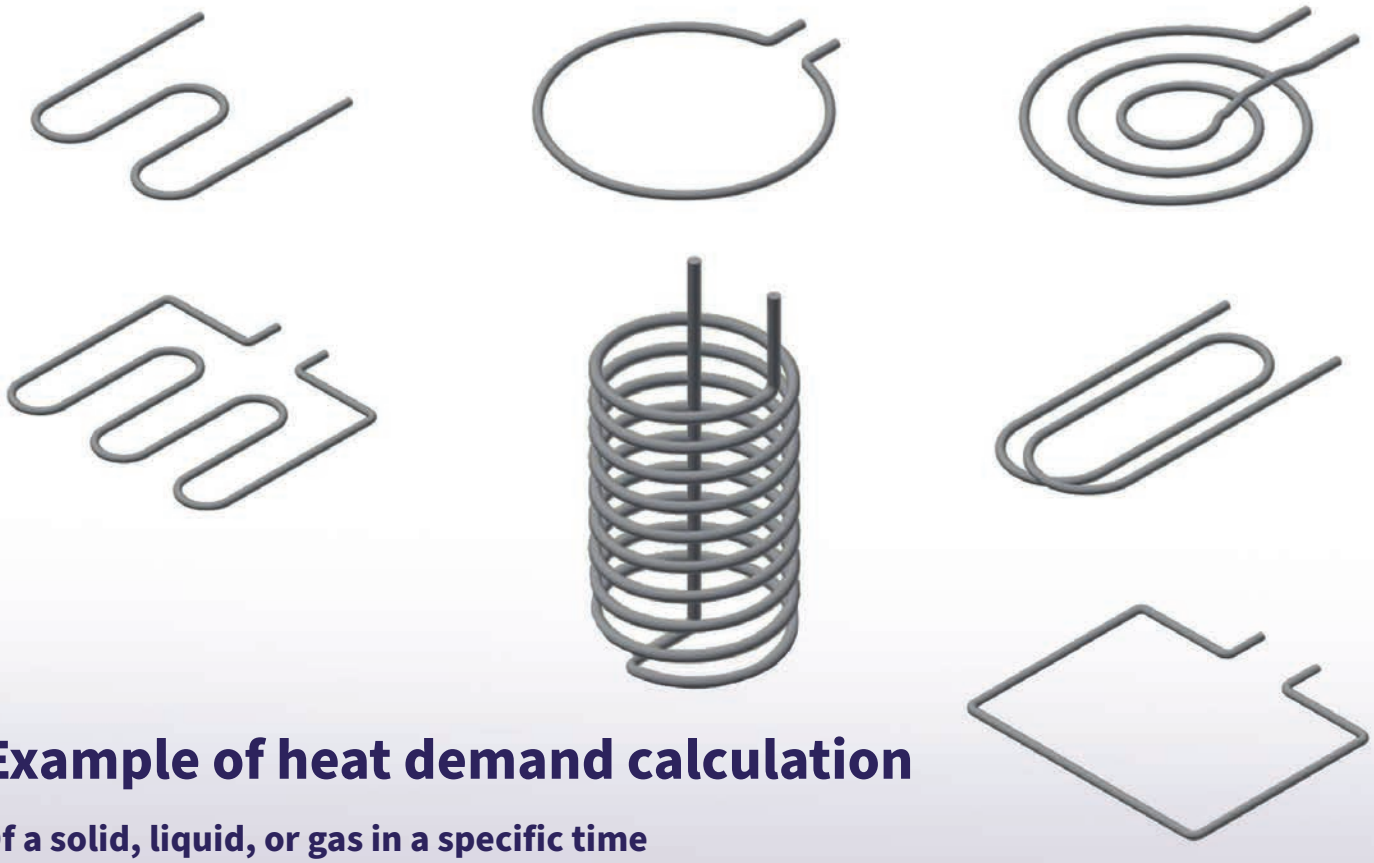
Connection strand



Flat plug connection

Other customer-specific connection technologies available on request

Examples of bending shapes



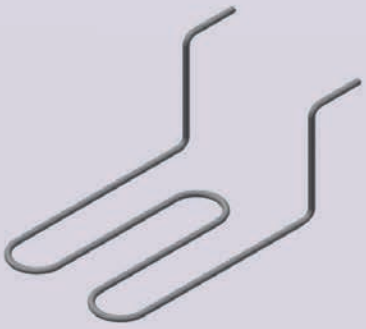
Example of heat demand calculation

Of a solid, liquid, or gas in a specific time (without changing the state of aggregation)

The following values must be known for the calculation:

1. Δt = Temperature difference between the initial and final temperatures
2. Cp = Specific heat capacity in kcal/kg °C
3. p = Density in kg/dm^3
4. V = Volume in dm^3
5. T = Time in hours, after heating time

1,15 = Safety coefficient with regard to voltage fluctuations and resistance tolerances



$$P = \frac{V * p * Cp * \Delta t * 1{,}15 *}{860 * T}$$

P = power to be installed in kW

Heat losses due to heat conduction or heat radiation are not taken into account. Depending on the design and type, a surcharge of 15 to 40% must be added to the performance figures.

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ISOHEAT®

Your partner for electrical heating systems for many years

We develop and produce customer-specific electrical heating systems for industry and research.

The name ISOHEAT® stands for quality and competence.

Thanks to our decades of technical knowledge in electrical heating technology and more than 60 employees who specialise in solutions for industrial heating technology, we are convinced that we're the right partner for you.

Our customers' satisfaction and trust is based on the fact that we provide our services on time and to the agreed quality.

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