



Kerfa®



Always hot



Kerfa®

system solutions
for furnaces

Kerfa® Heating and Insulating Systems Customer benefits of Kerfa® special products

Kerfa®, your partner for **industrial furnaces** and **appliances** with an extensive range of innovative **system solutions**.

Kerfa® produces efficient and long-lasting **electric resistive heating elements** as well as efficient **heating** and environmentally friendly **insulating systems**.

Innovative Kerfa® SAVAC® insulating systems contain **vacuum-formed, ceramic** or **biofibers** in varying compositions. They are produced to customer specification and offer significant **customer benefits** compared with conventional materials, such as fire bricks and lightweight refractory bricks.

Kerfa® SAVAC® **biofibers** are categorized pursuant to EC directives as non-carcinogenic and do not require classification as a dangerous substance.

Kerfa® **heating elements** are made of high-grade alloys to ensure high power densities.

Products

- Vacuum-formed Kerfa® SAVAC® insulating systems for gas-fired furnaces
- Vacuum-formed Kerfa® SAVAC® insulating systems for electrically heated furnaces
- Electric Kerfa® SAVAC® heating systems, embedded
- Electric Kerfa® SAVAC® heating systems, suspended
- Installation-ready Kerfa® heating elements
- Custom solutions
- Extensive accessories
- Spare parts

Service

- Complete customer-specific production
- Feasibility studies
- Technical consultation during furnace engineering
- Worldwide installation
- Complete furnace linings
- Modernization and relining of existing installations

Fields of application

- Industrial furnaces
- Laboratory furnaces
- Melting and holding furnaces for non-ferrous metals
- Thermal treatment facilities
- Protective gas generators
- Heating equipment and apparatus





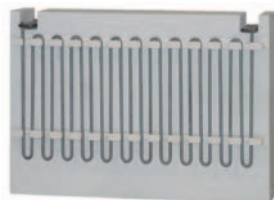
Product examples



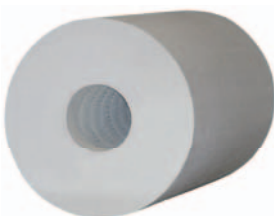
Meander heating segment (steel hooks)



Heating half shell (embedded heating wires)



Meander heating segment (ceramic holder)



Heating tube (embedded heating wires)

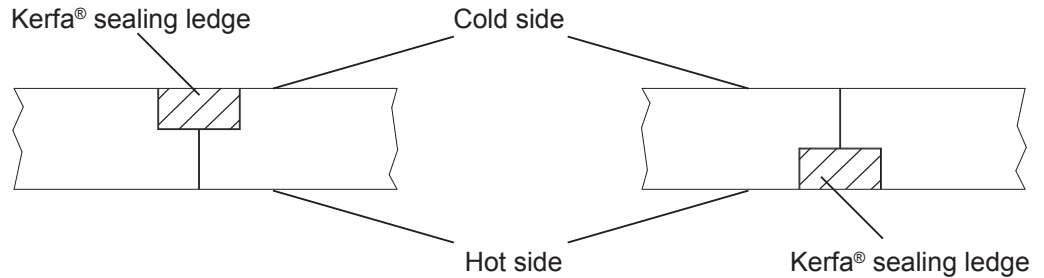


Insulating half shell

Kerfa® special product: Sealing ledge

The Kerfa® sealing ledge prevents undetermined heat loss from taking place at the points at which two components (segments, plates, etc.) are in contact.

The Kerfa® sealing ledge can be placed either on the cold or the hot side of the vacuum molded component, whichever is preferred.



⇒ Customer benefits:

Minimum heat loss ensuring maximum exploitation of energy in furnace process area:

⇒ Reduced operating costs

Lower surface temperature on furnace shell:

⇒ Lower risk of injury

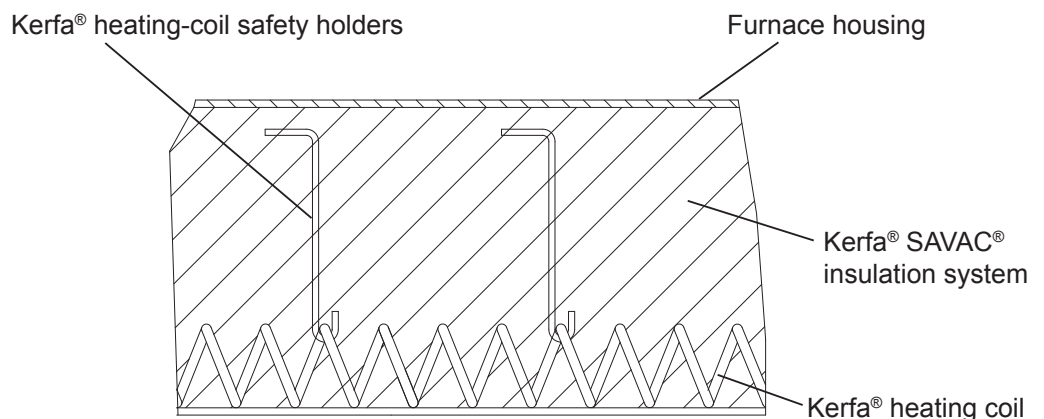
Reduced temperature in furnace installation room:

⇒ Reduced operating costs

Kerfa® special product: Heating-coil safety holders

Kerfa® heating-coil safety holders are used to permanently fix heating coils in system applications in ceiling areas.

For process temperatures of over 1,000°C, Kerfa® also recommends using heating-coil safety holders with side components.



⇒ Customer benefits:

Longer system service life:

⇒ Lower investment costs

No interruptions to the production process caused by detached heating coils and resultant repair:

⇒ Reduced operating costs

Defined process temperature maintained in the furnace chamber:

⇒ Process stability



Product examples



Heating muffles
(embedded heating coil)



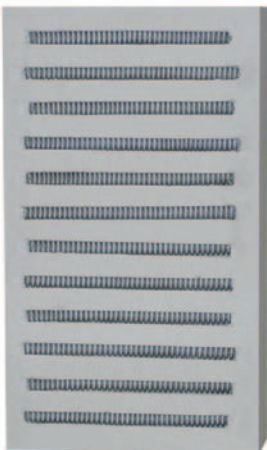
Insulation end disc



Insulation plate



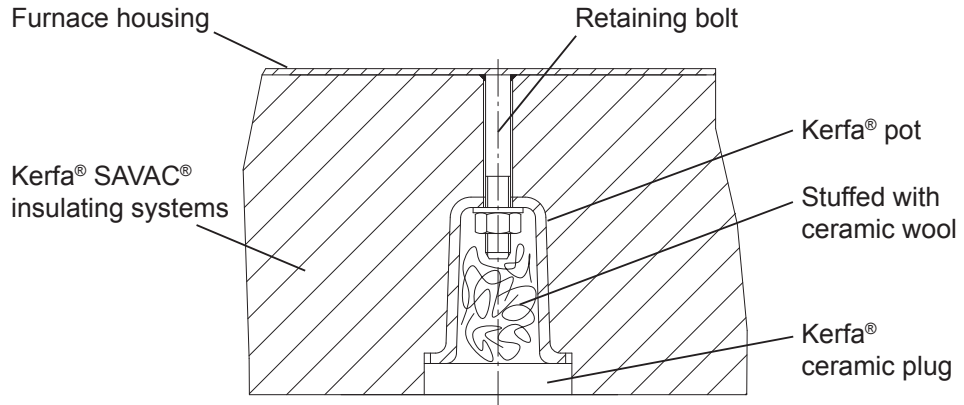
Insulation tube



Heating plate
(embedded heating coil)

Kerfa® special product: Heating and insulating system with ceramic pot

The Kerfa® ceramic pot is the ideal fixing system for ceiling or side-wall-mounted heating and insulating systems, and is optimized for energy efficiency.



⇒ **Customer benefits:**

Longer system service life:

⇒ Lower investment costs

Minimal heat loss:

⇒ Reduced operating costs

High-stability mountings for heating and insulating systems:

⇒ Lower investment costs

Lower surface temperature on furnace shell:

⇒ Lower risk of injury

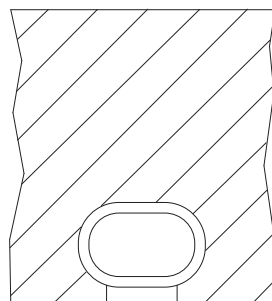
Lower maintenance requirements:

⇒ Reduced operating costs

Kerfa® special product: Heating coils embedded, hollow-molded, open at front

This special Kerfa® product is available for heating plates, segments or half-shells. The heating coil can be round or oval.

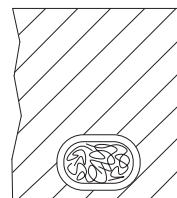
Hollow free of fibers



Heating coil embedded, hollow-molded, open at front

Hollow with fibers

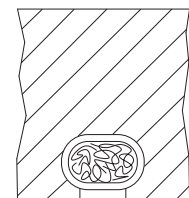
This construction suitable only for furnace temperatures up to 800°C



Heating coil embedded, closed at front

Hollow with fibers

This construction suitable only for furnace temperatures up to 950°C



Heating coil embedded, open at front

The standard surface loading for Kerfa® heating coils is 16 kW/m². Higher surface loadings are available on request.

⇒ **Customer benefits:**

Lower heat accumulation for longer service life:

⇒ Lower investment costs

Higher energy efficiency:

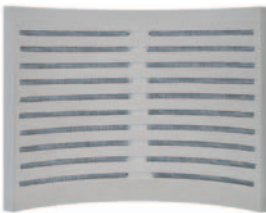
⇒ Reduced operating costs



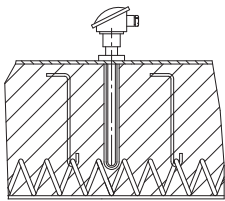
Product examples



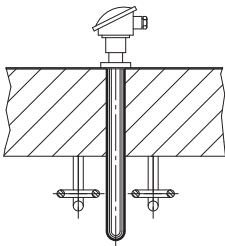
Individual custom solutions



Heating segment (embedded heating coil)



Thermal element (heating coil)

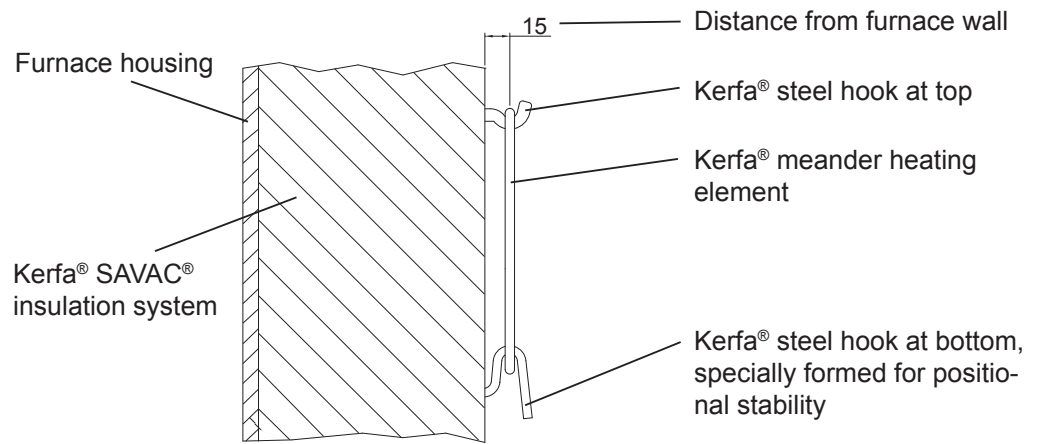


Thermal element (meander heating)



Ceramic pots

Kerfa® special product: Meander heating system suspended at a distance from the furnace wall with high positional stability



The standard surface loading for Kerfa® meander heating systems is 40 kW/m². Higher surface loadings are available on request.

⇒ Customer benefits:

- Smaller furnace dimensions: ⇒ Lower investment costs
- Positionally stable suspension: ⇒ Process stability
- Lower maintenance requirements: ⇒ Reduced operating costs

Further technical details and customer benefits

Vacuum-molded components

- Kerfa®-specific construction for increased stability and service life even under vacuum
- Smaller heat capacity and lower thermal conductivity of Kerfa® SAVAC® fibers
- Minimal shrinkage and higher thermal shock resistance
- Very high insulation values of Kerfa® SAVAC® insulating systems
- Good form stability at high temperatures
- Vacuum-molded parts are easy to replace
- Rapid temperature adjustment

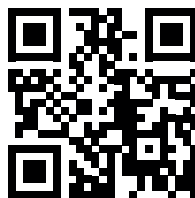
Heating elements

- High power density of electric Kerfa® resistive heating elements
- High temperature precision for the process

Temperature Ranges

Kerfa® SAVAC® insulating systems: Max. 1.600°C
 Kerfa® heating elements: Max. 1.400°C

Kerfa® – Made in Germany – used world wide



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