

## Heating modules



Kanthal prefabricated heating modules are designed for a wide range of thermal processing applications up to 1700°C (3090°F) element temperature. Combining the best properties of electric heating and fiber or dense ceramic insulation, Kanthal heating modules are suitable for the smallest laboratory furnace to the largest production furnace.

### Saves energy

The fully interchangeable heating modules are available in a variety of standard sizes or tailor-made with metallic or molybdenum disilicide (MoSi<sub>2</sub>) heating elements. The fiber-insulated modules, Fibrothal and Superthal, are especially efficient from an energy-saving perspective.

### Main advantages compared to conventional furnaces

- Fast and easy to install and replace
- Excellent heat distribution
- Energy efficient
- Long service life



#### **Superthal heating modules**

Heating modules consisting of vacuum-formed ceramic fibre with an integral Kanthal Super molybdenum-disilicide heating element for up to 1750°C (3180°F) element temperature.



#### **Fibrothal heating modules**

Heating modules with metallic heating elements and vacuum-formed ceramic fiber insulation for up to 1350°C (2460°F) element temperature.



#### **Moduthal heating modules**

Heating modules with metallic heating elements and non-electrically conductive, dense ceramic insulation for use at temperatures up to 1350°C (2460°F).

## Superthal heating modules



Prefabricated heating modules consisting of vacuum-formed ceramic fibre with an integral Kanthal Super molybdenum-disilicide (MoSi<sub>2</sub>) heating element for up to 1750°C (3180°F) element temperature.

Superthal heating modules are intended for use in laboratory or production furnaces/heaters wherever concentrated heat is needed. They also provide major energy savings in several applications. The flexibility of the heating modules allows for different tests and processes to take place in the same furnace set-up.

### Advantages compared to conventional furnaces

- Fast and easy to install and replace
- Quick temperature ramping
- Accurate temperature profiles
- Very high power concentration
- Long service life

### Geometries

Superthal heating modules are available in a variety of geometries and standard sizes. Tailor-made modules can be supplied to optimize the design and function of the particular application.

- Muffles
- Cylinders
- Half cylinders
- Radiating panels
- High-power reflectors

### Typical application areas

- Laboratory furnaces
- Dental furnaces
- Glass manufacturing
- Semiconductor manufacturing



## Fibrothal heating modules



Prefabricated heating modules with metallic heating elements and vacuum-formed ceramic fiber insulation for up to 1350°C (2460°F) element temperature.

The construction method of Fibrothal heating modules ensures accurate positioning of the coils and eliminates the distortion or other problems connected to the conventional open coil elements in grooves or on tubes. Fibrothal heating modules also provide major energy savings in several applications.

### Advantages compared to conventional furnaces

- Fast and easy to install and replace
- Increased insulation
- Less maintenance
- Very flexible
- High power concentration
- Huge constructions possible

### Geometries

Fibrothal heating modules are available in a variety of geometries and standard sizes. Tailor-made geometries can be supplied to optimize the design and function of the particular application.

- Muffles
- Cylinders
- Half cylinders
- Radiating panels

### Typical application areas

- Hardening of steel
- Heat treatment of steel
- Glass manufacturing
- Semiconductor manufacturing
- Laboratory furnaces



## Moduthal heating modules



Prefabricated heating modules with metallic heating elements and non-electrically conductive, dense ceramic insulation for use at element temperatures up to 1350°C (2460°F).

The construction method of Moduthal heating modules ensures accurate positioning of the coils and eliminates the distortion or other problems connected to the conventional open coil elements in grooves or on tubes.

A fibre-free version of Moduthal heating modules is available for up to 1250°C (2280°F) element temperature.

### Advantages compared to conventional furnaces

- Fast and easy to install and replace
- Fully interchangeable
- High surface load
- Superior element support
- Excellent heat distribution
- Long service life

### Typical application areas

- Processing of aluminium and other non-ferrous metals
- Pre-heating of steel and non-ferrous metals
- Glass manufacturing
- Wire annealing furnaces
- Crystal growing