

Resistance Heaters



Resistance Heaters



Industrial Thermal Management is one of seven business units within DBK Group. We deliver high quality electrical heating, cooling and electronics solutions in almost all sectors of industry. Our offerings include a wide range of standard products as well as custom designed solutions. Technical expertise, innovative thinking and commitment to excellence have made us one of the technological leaders in the global field of thermal management.

DBK's knowledge of thermal management gives us the experience to guide and support you with your technical challenges - we can manage the complete project from concept to full production release.

Resistance Heaters

The DBK wire-wound resistance heaters are economical and reliable heating sources coming in many design variations: tubular heaters, finned tubular heaters, heating cartridges, strip heaters or immersion heaters. They can be widely used in almost all areas of the industry for applications heating fluids, solid media and gases.

Our team of experienced design engineers will draw up the optimally configured heating solution for any specific application. The heaters can be designed in a wide range of shapes and sizes and are customizable to precisely meet your specification. Within the given range, virtually all power ratings can be achieved. Talk to us!

Mica Heaters

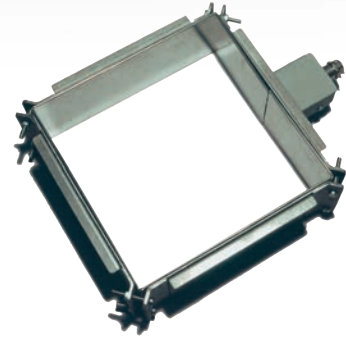
For direct heating of solid bodies.

- **Strip heaters**
Flat, thin heaters providing uniform heat to flat surfaces.
- **Disc or ring heaters**
Flat, circular heating elements.
- **Band heaters**
Wrap-around heating elements for heating cylindrical objects.
- **Square heaters**
Square section heaters for rectangular objects and tanks.

The Mica strip and disc heaters are deliverable with or without sheet metal sheath. Electrical connection: glass-silk insulated nickel lead, spade terminal, bare or ceramic beads insulated nickel wire.

Application:

Heating of tools, moulds, machinery and systems, industrial, laboratory and medical equipment.



Cartridge Heaters

Rod-shaped heating elements for a great variety of applications.

- **Metal-sheathed cartridges**
Straight, cylindrical heating elements with a stainless steel or brass sheath coming in diameters from 10 to 24mm. The maximum allowable watt density is 6W/cm². Maximum sheath temperature 600°C.
- **Ceramic cartridges**
Straight, cylindrical heating elements with ceramic body and coiled resistor, without metal sheath. For insertion into tight-fit receptacle holes in machinery and systems.

Application:

Heating of boilers, vessels, kettles and tanks, oil pans, oil sumps of combustion engines, hydraulic systems, deep fat fryers, fat containers, washing machines, steam generators, laboratory equipment, medical apparatus, instantaneous water heaters.



Cast-In Tubular Heaters

Aluminium heating plates, sealing heads, heating boxes. Provide uniform heat to large surfaces.

- Tubular heaters cast in desired position
- Aluminium casting ensuring optimal heat transfer
- Good temperature distribution over entire surface
- Compact unit with junction box
- Non-stick PTFE/Teflon surface coating
- Chemical nickel coating possible
- High shock and vibration resistance, rugged design
- Operating temperatures 100 to 300°C
- Operating voltage up to 500V
- Performance rating IAW customer's requirements

Application:

Packaging machines, foil extrusion machines, presses, heating plates, laminating machines, plastics processing.



Finned Tubular Heaters

Tubular heaters designed to heat air, fluids and gaseous media.

- Good convection
- Wide range of use
- High operating safety
- Low surface temperature
- Power output IAW customer's requirement
- Rugged design

Application:

Air heaters, duct heaters, antifreeze devices, gas preheaters.



Tubular Heaters

Heating elements for versatile use. Suited to heat liquids, gases and solids.

- Tube diameter 8.5 (8.1) and 6.5mm
- Stainless steel sheath (steel or copper for special application considerations)
- High power density
- Can be formed into virtually any required shape
- Ends unheated
- Operating voltage up to 500V
- Watt density up to 25 W/cm²
- Surface temperature up to 800°C
- Shock and vibration resistant
- Corrosion resistant if adequate material has been chosen

Application:

Grills, baking ovens, roasters, griddlers, washing machines, dishwashers, instantaneous water heaters, boilers, water heaters, space heaters, air heaters, radiation heaters, steam generators, evaporators, dryers, deep fat fryers and fat pans. Heating of tools, moulds and die-casts.



Immersion Heaters

Tubular heaters for heating liquid and viscous substances.

- **Screw-plug immersion heaters**
Up to six hairpin-bent tubular heating elements brazed into a threaded flange. For small and medium-size tanks and vessels.
- **Over-the-side immersion heaters**
Tubular heaters in a variety of shapes for immersion in non-flammable liquids only. These mobile heaters can be readily moved to various locations.
- **Flanged immersion heaters**
Hairpin-bent tubular heating elements brazed into a flat flange. Standard or custom configurations possible. High power output for medium to large size vessels and tanks.

Application:

Heating of boilers, vessels, containers and tanks, oil pans, oil sumps of combustion engines, hydraulic systems, deep fat fryers, fat pans, steam generators, laboratory equipment, medical apparatus, instantaneous water heaters.



Electric Heating Table

Aluminium-top hot plate designed for pre-heating of workpieces and tools.

- Digital temperature controller
- Embedded tubular heating elements
- High thermal conductivity
- Homogeneous heat distribution
- Rugged, heavy-duty design
- Stainless steel case
- Aluminium top plate

Application:

For use in maintenance and manufacturing processes. For example, to pre-heat and enhance the workability of gear wheels, bearings, bushings, shrink fittings, couplings, pulleys, flanges, pinions, and many more.



