# Temperature under Control.

 $\Omega DBK$ 

CHINE.

Creative thermal solutions are our core competency. We develop and deliver thermal management solutions – standard and customdesigned. Our comprehensive spectrum of products ranges from compact-size heating elements to complete heating and cooling systems.

**PTC TECHNOLOGY** 

WIREWOUND TECHNOLOGY

PELTIER TECHNOLOGY

## ITM Range of Products and Services.

#### **OUR OFFERINGS AT A GLANCE**

- Broad range of standard products
- Custom solutions ranging from modified standard to individual new product developments
- Close cooperation with the customers
- High flexibility and functional diversity

Innovation born out of tradition.

quality for our products.

- System solutions with integrated electronics
- Project management in compliance with TS standards

Industrial Thermal Management stands for over 60 years

of experience and technical expertise in developing

and delivering thermal management solutions. Our

highly versatile products and systems provide solutions

to customers in practically all industries. With our

commitment to excellence we guarantee the highest

#### Intelligent thermal management.

Using various technologies, we develop and manufacture powerful electrical heating and cooling systems. Whether for standard or custom-designed solutions - we are your partner! Professional service from design concept, prototyping and validation through to serial production.

#### A strong group.

Industrial Thermal Management is one of seven business divisions of the international DBK Group. With manufacturing facilities and sales offices across the world, ITM is well positioned to serve its global customers. Technical expertise, creativity, continuous innovation and high flexibility have made DBK one of the technology leaders in the market for thermal management products.

#### WE MAKE IT POSSBILE

Technologies:

Input voltage range: Approvals: Certifications:

INDUSTRIAL THERMAL MANAGEMENT

PTC, Conventional resistance wire, Open coil wire, Peltier thermoelectric cooling, Foil heating technology 10 - 850V 0,5W - 30kW VDE, UL, CSA ISO 9001, ISO/TS 16949





#### ITM Outdoor and Electrical Enclosures - Anti-Condensation & Frost Protection.

# ODBK INDUSTRIAL THERMAL MANAGEMENT



**Condensate Evaporators** 

**Cirrus Series** 



#### Heating, Humidity Control, Regulation.

Extreme temperatures, humidity and dust affect the proper functioning of the electronic components inside electrical panels and enclosures. DBK has the full range of products for an optimally tailored thermal management: from heaters, filter fans, and condensate evaporators to thermostats and hygrostats.

#### Too Cold?

DBK's reliable fan heater units (Cirrus) and natural convection heaters (Nimbus) will protect the electronic components in outdoor applications from frost and condensation. The self-limiting PTC temperature characteristic guarantees maximum safety in operation. In case of need, our electronic temperature controllers allow fine-tuning of the thermal management system inside the enclosure.



#### **TYPICAL APPLICATIONS**

- Traffic monitoring systems
- Access control systems
- Heating of operator cabs
  - Telecommunication
  - Renewable energies

  - and many more ...

#### Too hot?

If, in the contrary case, natural convection is not sufficient to prevent overheating of the electronic components inside your enclosure, DBK's thermoelectric coolers and filter fans are the right choice.

#### Harmful Condensation?

DBK's electric condensate evaporators automatically collect and evaporate the condensate. Safe, comfortable and energy-saving.



• Automated teller machines (ATM)

Ticket vending machines / parking ticket terminals

• Display heating / panel heating

Fuel gas dispensers / electric car charging points

- Food transportation trolleys



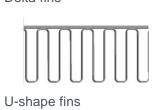
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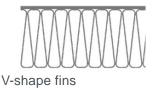


ITM Climate Control in Residential & Industrial Buildings - Homogenious Air Heating.

#### **FIN SHAPES**







Custom-designed Finned Resistor Heaters



PTC Finned Resistor

# Heaters

#### High-Efficiency Air Heating.

Whether used to pre-heat cold intake air or to warm up the air of a room, the DBK finned resistor heaters are the solution. In most applications, the highly reliable, inherently safe PTC heaters with self-limiting temperature characteristic don't even need any additional electronic control devices.

#### Outstanding Performer.

Application calling for a high heat output? DBK's open coil air heaters are the answer. Our open coil heaters guarantee an optimum heat transfer. The proven technology has been successfully employed for many years in the white goods industries.

ODBK INDUSTRIAL THERMAL MANAGEMENT

## **TYPICAL APPLICATIONS**

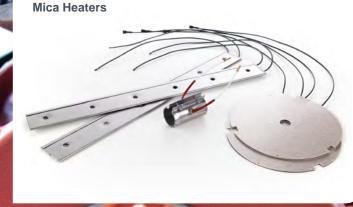
- Heating of operator cabs
- Drying equipment
- Heat exchangers
- Ventilation systems
- Heat recovery systems
- Residential ventilation systems
- Cleaning units
- Aircraft cockpit heating
- Air dryers
- Enclosures and cabinets
- and many more...



**Open Coil Air Heater** 

ITM Industrial Solutions - From Mechanical Engineering to Wind Energy Plants.







**PTC Flex Heaters** 



#### High diversity – from Small to Large.

DBK's offerings include a broad repertoire of thermal products for the most diversified fields of application in nearly all industries. The customer can choose from among a large variety of designs, sizes and performance ratings to find the right solution for his application. Whether to protect control valves from frost, to pre-heat tools or to heat a complete processing line -DBK has the solutions!

#### Power on demand!

Simple with DBK's powerful resistance heaters: tubular heaters transferring heat through direct contact, convection or radiation. Tubular heaters can come as single or multiple units, as the heater module inside our electronically controlled water heaters. The Mica heaters also come in a great variety of shapes - flat, round, wraparound or square - and are thus the perfect choice for many heating applications.



**PTC Conductive Heating Elements** 

**Confined Space or Temperature Limitations?** No problem for us. Our ultra-flat foil heaters with PTC or wire-wound resistor make it possible.

#### **Optimum Contact.**

Surface and cartridge heaters can be tightly fit to the object to be heated, thus ensuring an optimum heat transfer.

#### INDUSTRIAL THERMAL MANAGEMENT

#### **TYPICAL APPLICATIONS**

- Machinery and tools
- Valve heating
- Steam generators
- Hydraulic systems
- Laboratory and medical appliances
- Container heating
- Coffee machines
- Steam cookers
- Baking ovens
- Wind power plants
- and many more...

Ceramic Cartridge Heaters

## **ITM Group** - Your Strong Partner.

# $\Omega$ DBK

#### YOUR IDEAS ARE OUR CHALLENGE.

What makes us strong is the close cooperation with our customers in a solution-oriented partnership. For a quick and focused response to your demand, we have created a questionnaire that will help you define and specify your application requirements. Please provide as much information as possible.

#### **DBK - YOUR PARTNER!**

Profit from our long-standing experience in the field of Thermal Management. We will be pleased to support you with your project – from concept stage to serial production.



## INDUSTRIAL THERMAL MANAGEMENT





Standard Products



**Custom-designed Solutions** 



**Project Management** 





System Solutions



## www.itm.dbk-group.com

# Well prepared for all temperatures!

# $\Omega$ DBK

**Industrial Thermal Management** 

- Germany
- Austria
- Sweden
- United Kingdom
- Czech Republic
- USA
- China & Hong Kong

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