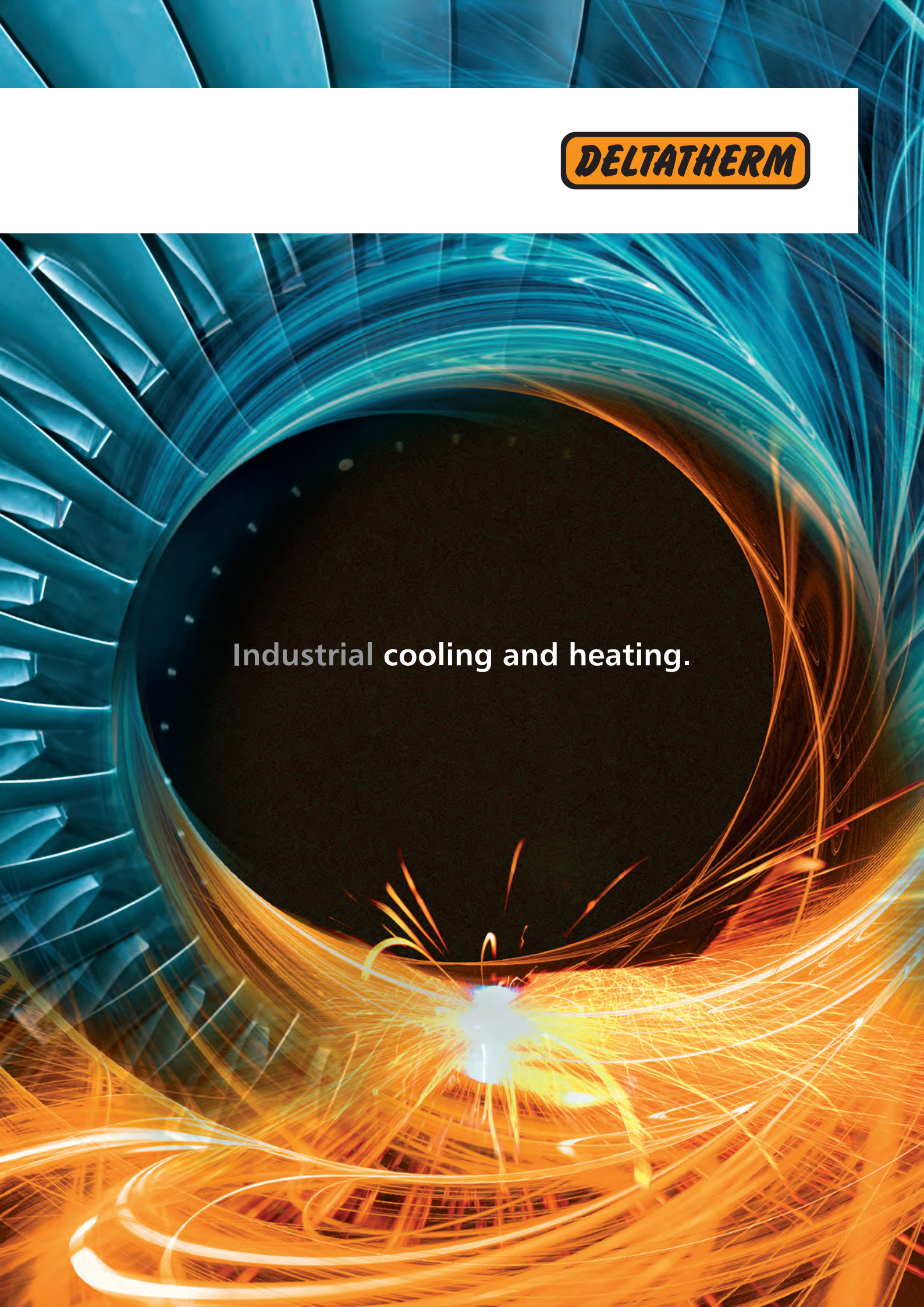
DELTATHERM



Industrial cooling and heating.

Partner of the industry for over 50 years.

Since 1971 **DELTATHERM® has belonged to Hirmer GmbH**, a family business with its headquarters in Much near Cologne, one of the leading German manufacturers of cooling and temperature control systems.

Thanks to our broadly diversified product portfolio, we can react individually to the specific requirements of our customers from a wide range of industries. We manufacture chillers, heat exchanger systems, temperature control units, heaters as well as cooling systems and cooling components – from individual units to series production. In close cooperation with our customers, our engineers meet every challenge and develop customised solutions and individual designs.
An expanding worldwide network of service partners supports our factory customer service in 60 countries on six continents. We always have 95 % of all replacement parts in stock, ready for dispatch within 24 hours. Quality, process safety, ease of maintenance and user-friendliness are our top priorities.

The safety of your production plants and of the production process are, to a large extent, dependent upon how well and how reliably your processes are temperature-controlled or cooled.
At **DELTATHERM®**, qualified specialists - from trained tradespeople to master craftsmen and engineers - ensure the optimal mixture of planning, project engineering, diligent manufacturing methods and thorough quality control.
Thanks to an in-house planning and design department, software development, control system construction, including an on-premises paint shop, we cover almost the entire vertical range of manufacture for cooling and temperature control units.
Purchased components such as pumps, valves, relays etc. are acquired from market-leading or renowned manufacturers.

All devices and systems are subject to a comprehensive functional test before dispatch. Because we are fully aware of what a plant standstill and the resulting production downtimes can cost our customers, we offer:

- Global plant service
- Service hotline to our experts, in German and English
- All standard components in stock and available globally in the shortest time by express mail
- Replacement part availability > 95 %
- An expanding worldwide network of service partners with locations on 6 continents – in Europe, North America, South America, Africa, Asia and Australia
- Online service, through which we can check and maintain your systems
- Ensuring the productivity of your **DELTATHERM®** machines

Made in Germany

„We focus on only one thing: customer satisfaction. We achieve satisfaction through our high product quality, permanently available service and the highest level of flexibility, through which we find individual solutions for all requirements. And we live out this claim - every day, for over 50 years."

Sascha and Mario Hirmer
Managing Directors


DELTATHERM
INDUSTRIAL COOLING AND HEATING

Turning, Milling, Sanding and Eroding Machines

Cooling of spindles, machine beds and electronics.

Machining centres for turning, milling, sanding, and eroding with high-speed spindles reaching up to 200,000 revolutions/minute are at the core of our cooling solutions for main and counter-spindle motors, torque motors, linear drivers, machine beds, electrical control cabinets, and the workpieces to be machined. Water, oil, emulsions, and other coolants are used as cooling agents.

Special characteristics of the cooling systems

- Extreme temperature stability of +/– 0.1 K
- Tracking of coolant temperature depending on machine bed or ambient temperature
- Flow monitoring for spindle protection
- DC control voltage
- Direct or indirect cooling of the dielectric
- Extreme environmental conditions such as oily air or temperatures of up to +50 °C
- Continuous operation, 24 hours a day, 365 days a year

Temperature stability +/-0.1K

Components of well-known manufacturers

Applications

Multi-axis machining

Aluminium machining


DELTATHERM

Coolant Filtrations

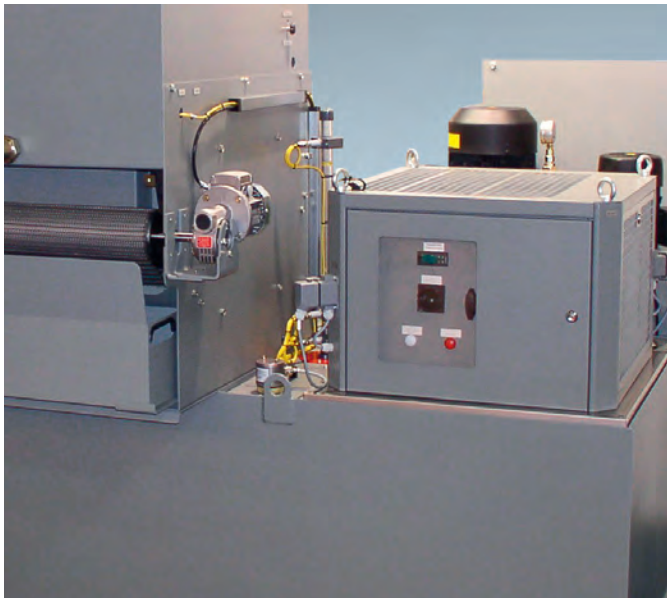
Cooling of water, oil and emulsion.

Rotating, drilling, milling, cutting, and sanding with steel and stainless steel, aluminium and cast iron, non-ferrous metals and silicone, as well as graphite and various plastics: Machine tools must do every task they are given.
For nearly every type of metal cutting, cooling lubricants are needed, which become contaminated with shavings and dust.
The emulsions and oils in cooling lubricant filtrations, which are often highly contaminated, are always kept precisely at temperature and cooled with our dipped and continuous-flow cooler.

Immersion cooler E12 Öl for spindle cooling and coolant filtration

Immersion coolers customized housing sizes

Applications



Immersion coolers for machining emulsions

Immersion coolers for grinding oils


DELTATHERM

Laser Technology

Cooling lasers, optics, and electronics.

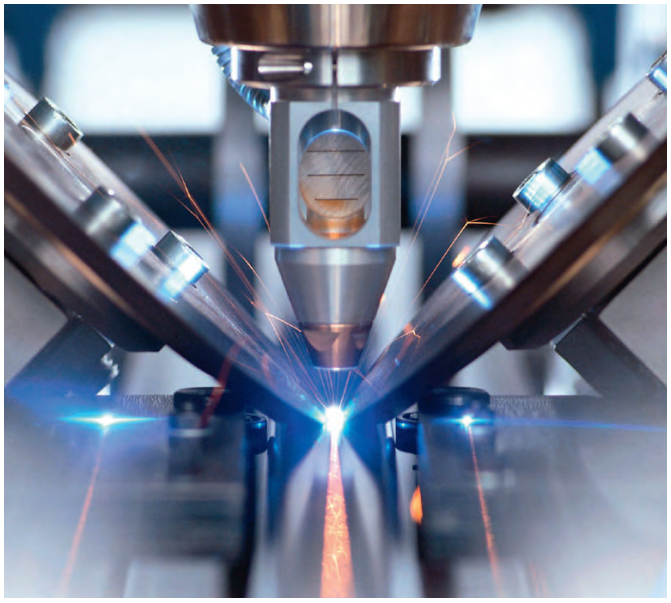
DELTATHERM® a leading system manufacturers of cooling systems covers a wide range of applications in laser technology. We offer cooling technology solutions for laser cutting and welding, laser coating and marking, laser-beam hardening as well as hard soldering, spot welding and roll seam welding done by laser.

What has to be cooled in a laser system?
In a laser system, the converters, switch cabinets, beam sources, beam guides and – if diode lasers are used – the laser diode have to be cooled directly. For CO2 lasers, the predominately required temperature constancy of the coolant must be =+/-1K, while diode lasers require a temperature stability +/- 0.5 K, while the water outlet temperature from the cooling device varies between roughly +15 °C to +30 °C.
In such systems, the main focus is on the water quality. The extremely small cooling ducts in the laser require the purest water possible. To rule out problems with water conductance, the cooling systems are often operated with deionized water (DI water) and desalination tablets, which of course places extreme demands on the choice of materials (stainless steel and special plastics). In some special laser cooling systems, it is possible for example the cooling switch cabinet requires a lower temperature than the optical circuit. Here, too, we rely on our expertise to offer our customers tailor-made solutions.

Water/water laser cooler in 19" push-in measure

Water/air laser cooler in 19" push-in measure

Applications



Laser welding

Laser engraving


DELTATHERM

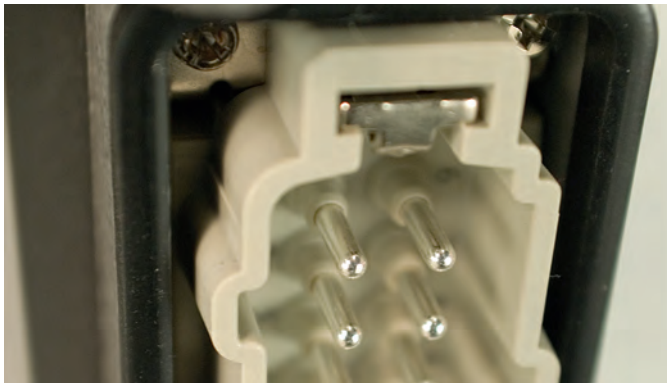
Welding/Cutting

Cooling electrodes and transformers.

DELTATHERM® cooling equipment have a wide variety of applications in welding and cutting systems. With MIG/MAG welding, plasma cutting and of course with resistant welding, cold water is needed. In these cases, the water outlet temperature from the cooling device is between approx. +15 °C and +30 °C.

What has to be cooled in a welding system?
In MIG/MAG welding, the welding electrodes are cooled to ensure longer service lives of the electrodes which become very hot due to the extreme temperatures, while in resistance welding (spot welding, projection welding, seam welding, etc.) the electrodes as well as the welding transformer need cooling.

Accessory cooler from the LT series



Various interfaces, such as Harting connectors

Applications

Plasma cutting for fine sheet metal work

Robot welding in automotive production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Plastics

Temperature control of injection and blow moulding machines and extruders.

Our cooling and temperature control systems are used to cool moulds and hydraulic systems. The liquefied plastic is fed into the mould via an extruder screw until it solidifies.
For a continuous demoulding process, the temperature of the mould, which is strongly heated by the injected plastic, is continuously controlled. Our powerful temperature control units, coolers, and refrigeration systems are characterized by short cycle times, a stable demoulding process and high process reliability.
Furthermore, the hydraulic systems used to open and close the moulds must be maintained at oil temperatures of < + 60 °C by using active chillers (compression refrigeration systems) or passive coolers (air coolers or cooling towers).

Extruder: When extruding pipes, cables, profiles, or rubber, the plasticized endless strand of rubber or plastic is cooled by means of a water bath connected downstream. This water bath is kept at a constant temperature by a cooling circuit, whereby a very high cooling capacity is often required, with water temperatures ranging from +8 °C to +30 °C due to high material throughputs.

Our cooling systems significantly reduce operating costs in production, as no fresh water is required for the cooling.
The continuous, closed-loop water circuit also prevents scaling of the cooling lines in the machine and the extruders.

Detail 6-circuit temperature control unit

6-circuit temperature control unit for calenders, smoothing rolls and extruders

Applications

Plastic injection moulding machine

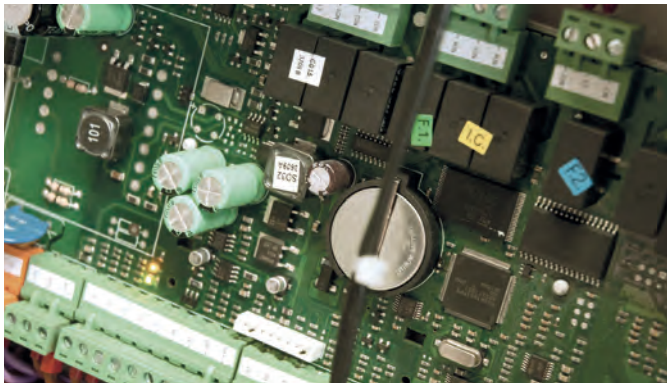
Cable extrusion


DELTATHERM
INDUSTRIAL COOLING AND HEATING

Chemical and Food Industries

Temperature control of stirring and mixed tanks and heat exchangers.

The demands placed on temperature control systems in terms of temperature stability, flexibility, automation and environmental compatibility are constantly increasing.
In order to achieve reproducible quality assurance results, we customize our cutting-edge heating and cooling modules to respond to the needs of our customers with the highest degree of flexibility. **DELTATHERM®** has many years of impressive expertise and a unique level of vertical integration, both for standard and custom machines, and offers optimal solutions for temperatures ranging from -100 °C to +300 °C.



PID temperature controller board

PID temperature controller display

Applications

Double wall container for chemicals, cosmetics

Food industry

Quality

We call it sports.

Anyone who works with industrial cooling or temperature control systems is probably familiar with **DELTATHERM®** or is already working with our systems. We only use components from well-known brands, and all our machines are tested on our computer-aided dynamometers before delivery.

It goes without saying that we manufacture according to all relevant standards such as CE, UL, CSA, EN 378 and EN 60204.

We document our quality awareness through certifications according to DIN EN ISO 9001: 2015 and ÜWG.

DELTATHERM® has unrivalled practical experience in the sector. Since 1971, our systems are completely „Made in Germany“. Only systems that meet the highest demands leave our production halls. Many of our plants are still in use after 20 years.

So if you choose a **DELTATHERM®** system and we never see you again, that’s not necessarily a bad sign.

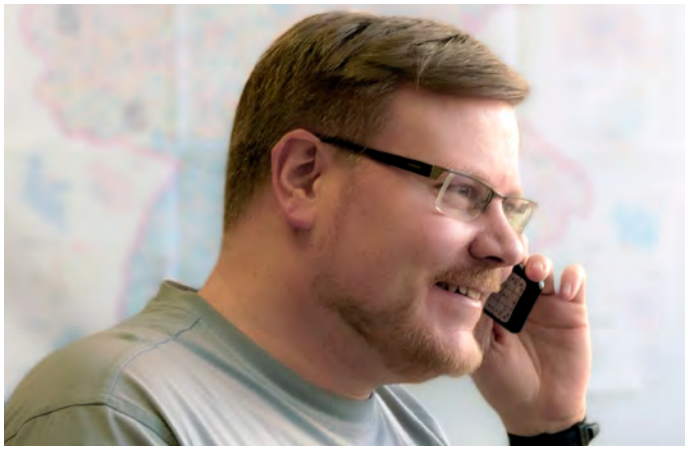
This is what we call sports.

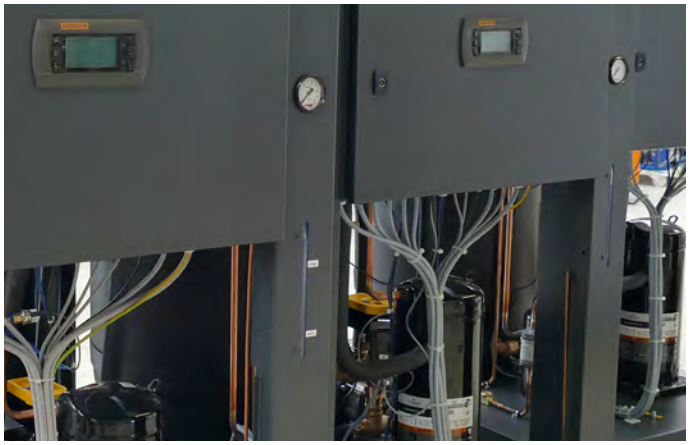
Service

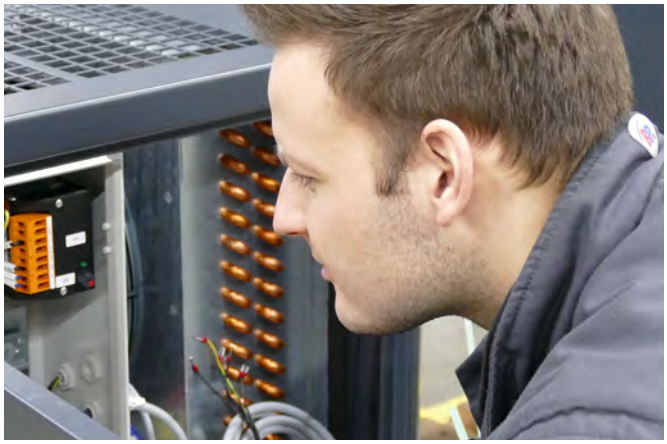
Highest availability, fast delivery.

DELTATHERM® service „Made in Germany“ means that qualified professionals, from trained craftsmen to engineers, are available for you.

Our optimal mix of planning, projecting, manufacturing, punctual delivery and after sales ensure a perfect customer service, making us a reliable partner for industry customers all over the world and meeting the highest standards day after day.







Since we know exactly the costs of system downtime and resulting production losses, we offer our customers:

Our service features

- Worldwide factory service
- Service hotline in German and English with our experts
- All standard components in stock and available by express service in shortest time worldwide
- Spare parts availability >95 %
- An expanding network of service partners with the focal points of the location on 6 continents - in Europe, North America, South America, Africa, Asia and Australia
- Online service, with which we can check and service your system
- Safeguarding the productivity of your **DELTATHERM®**- equipment

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