

# Individual Cooling Systems



INDUSTRIAL COOLING AND HEATING



# 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



## Cooling Towers

Cooling capacities between 100 and 15,000 kW.

The cooling towers of the large-scale KT series in the power range of approx. 100 to 15,000 kW are characterized by economical use, reliable operation and long service life. The cooling tower range comprises a large number of cooling towers with closed or open loop consumer circuits. The cooling towers are made as standard of hot-dip galvanized sheet steel; cooling towers made of stainless steel or with plastic cladding are also available. **DELTAHERM®** develops, designs and builds cooling towers with cooling capacities between 100 and 15,000 kW.



In the wet cooling process, the water to be cooled is sprayed in the air. The air is heated, leading to a chimney effect, and the water gives off its energy. Cooling towers that use wet cooling have a very high power density. The loss of water during evaporation is minimized by droplet separators.

The heat exchanger consists of plastic elements with high exchange capacity and high mechanical load capacity. Special high-performance, radial or axial fans ensure a low noise level. Optional silencers reduce the background noise to a minimum. **DELTAHERM®** cooling towers are part of centralized recooling systems with turnkey delivery, including electronic microprocessor control.

Water treatment and conditioning as well as a comprehensive package of options ensure the implementation of all technically feasible requirements of our customers.



## Compressor Cooling Systems

For the medium and high power range.

DELTATHERM® develops and designs individual cooling systems according to customer requirements, based on extensive research and many years of practical experience. Cooling capacity, cost-effectiveness and operational safety are just as important here as in the well-known compact systems of DELTATHERM®.

### Variants and options (systems configured for customer-specific requirements)

- As an extension or as an independent system
- With cooling capacities from 0.5 to 5,000 kW
- Flow temperatures of -40 °C up to +40 °C
- With spiral, piston or screw compressors, depending on requirements
- For outdoor or indoor installation
- For Central European to tropical environmental conditions
- With air or water cooled capacitors
- Capacitors with different designs, such as resistant to seawater
- With own control unit or integrated into existing controllers
- Numerous interfaces optionally possible
- Remote maintenance modules optionally available

### Quality and performance features

- Stable profile frame construction with optional housing panel
- Maintenance-friendly arrangement of all components
- Weatherproof coating
- Eco-friendly and energy-saving system components
- Each device undergoes a performance test at the factory
- Execution according to all current regulations
- Highly efficient low-vibration and low-noise compressor
- Condenser and evaporator adapted to the application with complete oil and refrigerant charge (CFC-free)
- Cold water circuit with generous tank, water circulation pump, freely configurable pump/container groups
- Complete electrical control cabinet with all the necessary control and monitoring devices

# Heat Transfer Systems



Thanks to their outstanding quality, **DELTATHERM®** systems offer many ways to save production costs and nevertheless ensure highly efficient cooling.

Cooling that uses cooling tower water, surface water, or well water is often problematic, because this water is rich in oxygen and is full of minerals and particles that destroy cooling equipment in production, laboratory, and research facilities due to corrosion or clog them with deposits.

**DELTATHERM®** heat transfer systems don't allow such problems to occur in the first place. A heat exchanger separates the primary circuit (to the systems to be cooled) from the secondary circuit (contaminated water). Media other than water (such as acids, lye, oil, DI water, etc.) can also be cooled in this manner.



The temperature-control system developed by **DELTATHERM®** ensures highly precise temperature control, regardless of the available cooling water temperature. This minimizes fresh water consumption and the costs for water treatment.

Thanks to a wide range of options, **DELTATHERM®** heat transfer systems are as versatile as any of our products. These options include a redundant pump, early warning of low water levels, emergency cooling, special voltage levels, and much more.

# Pumps and Container Groups



Central pumps or/and tank stations of **DELTATHERM®** made of steel, stainless steel or plastic provide the necessary water supply.

Like all our products, **DELTATHERM®** pumps and container groups are versatile through a wide range of options.

These include a redundant pump, analogue interfaces (0 - 10 V or 4 - 20 mA) and digital interfaces (RS 232, RS 422, RS 485, CAN bus, MOD bus as well Euromap 17), spare cooling, special voltages, and many other things.

# Free Coolers



The **DELTATHERM**® free cooler range includes many heat exchangers with closed-loop or open-loop consumer circuits. The free coolers of the glycol cooling series are characterized by extremely economical and reliable operation as well as long lifespan. They are made of galvanized and painted sheet steel as standard; free coolers with stainless steel cladding are also optionally available.

The heat exchanger consists of copper pipes with pressed aluminium discs for a high-efficient heat transfer (special iron/stainless steel models are optional). Special high-capacity centrifugal or axial fans ensure low noise. Optionally available silencers reduce the background noise to a minimum.

# Hybrid Coolers



Energy-saving hybrid coolers with power range from approx. 15 to 800 kW work according to the air cooling principle. If the outside temperatures exceed the required process temperatures, control technologies for hybrid cooling systems developed by **DELTATHERM**® enable cooling water temperatures to be generated below the ambient temperature.

**DELTATHERM**® hybrid coolers do not require spray water treatment. Pollution and corrosion of the heat exchanger is minimized by indirect spraying. This system is therefore the ideal replacement for open evaporation cooling systems without the disadvantages of contamination, salt and oxidizer content as well as water evaporation. Operating and maintenance costs are significantly reduced by avoiding water losses as well as by saving chemicals for water treatment. At the same time, operational reliability and availability of the production plant are increased.

**Water treatment and conditioning as well as a comprehensive package of options ensure the implementation of all technically feasible requirements of our customers.**

**DELTATHERM® Hirmer GmbH**

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## Further products from our product range



Industrial series cooling towers with open or closed circuits from 80 to 18,000 kW cooling capacity



Dry and hybrid coolers for water, oil or emulsion from 0.5 to 15,000 kW cooling capacity



Rack chillers in the power range from 0.15 to 3 kW cooling capacity; as heat exchanger up to 10 kW



Industrial cooling machines for water, oil and emulsion from 0.2 to 5,000 kW cooling capacity



Temperature control systems for water up to 160 °C and oil up to 350 °C



Immersion coolers for water, oil and emulsion from 1.7 to 115 kW cooling capacity

Technical modifications and errors reserved.

