



## System I.

# When things get hot: Integrated machine and process cooling from GDTS.

**At the ISH in Frankfurt, the leading international trade fair for water, heat and climate control, Glen Dimplex Thermal Solutions (GDTS) will be presenting its intelligent solutions for integrated machine and process cooling in the industrial, commercial or medical sector: System I.**

**Kulmbach / Frankfurt.** The basis for functioning high-tech and precision machinery is continuous cooling adapted to demand. GDTS develops and manufactures custom machine and process cooling systems for industrial, commercial or medical applications. System I represents cooling solutions from GDTS that are absolutely reliable, robust and durable. They are constantly focused on the stability and consistent performance of the cooling process. The solutions are founded on over 50 years' experience in refrigeration circuit technology. Paired with high levels of engineering expertise, the results are innovative professional cooling systems.

### **Developed for OEM customers. Worldwide.**

Tailored cold solutions are developed together with the customer. When developing a cooling system, GDTS imposes the highest demands on all components and parts. FMEA analyses help to make the product work safely and flawlessly right from the start. We subject all new developments to extensive simulations in order to ensure maximum safety when they go on to be used in applications around the world.

### **Industrial cooling: Cooling systems for high-precision lasers or machine tools.**

GDTS cooling solutions assure process safety, cost-effectiveness and energy efficiency based on compact, highly integrated systems. Perfectly cooled machines can then run at maximum performance. The basis is a modular platform concept adapted consistently to customers' requirements. System I was developed for the reliable cooling of machine tools and plastics machinery. Its applications include the fields of additive manufacturing, mechanical fabrication and surface treatment.

### **Industrial cooling: Networked cooling for high-tech lasers.**

GDTS possesses many years of experience and expertise in the custom development of cooling systems for laser applications – CO<sub>2</sub>, solid-state, disk or diode lasers.

One example is the highly integrated cooling module. It's a smart plug-in element, developed specifically for laser cooling. It's an ingeniously space-saving unit that cools with precision and is a breeze to integrate. With cooling water temperatures from plus 5 to plus 38 degrees Celsius, it is highly adaptable – for precision laser cooling up to 25 kW, including under extreme climatic conditions. Features of the fully integrated system

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solution include a hydraulic unit, interfaces and sensors, as well as active and passive cooling units in a plug-in cooler. That saves space compared to an external solution, and is also cheaper. The module can be exchanged quickly when necessary, keeping shutdown times to a minimum. The frequency-controlled components ensure maximum efficiency. The smart cooling module can be remotely monitored and centrally controlled via an interface.

### **Medical cooling: Highly integrated cooling technology for MRT and other applications.**

Highly complex diagnostic imaging systems, such as MRT, CT, XR or AT, generate lots of heat. Reliable cooling is key to keeping everything running smoothly and ensuring that the equipment is delivering maximum performance. System I from GDTS provides powerful solutions not only in diagnostic imaging but also in other areas: for laboratory and analytical applications, or for the storage of substances requiring cooling such as blood or drugs.

System I is the intelligent and reliable cooling solution, including for MRT applications, featuring a medical chiller (MC) and system separator as its basis. GDTS is a world market leader in system separators for MRT applications.

### **Strong cooling performance for continuous operation in clinical applications: Medical chillers.**

The MC series comprises four models with refrigeration capacities from 40 to 70 kW and an ESS unit to save energy based on free cooling. They assure ideal operating conditions for state-of-the-art diagnostic systems in medical facilities. When developing the series, the focus was on fail-safe operation and effective cooling within narrow tolerance limits. The selected components and the design principle were precisely adapted to meet the high demands of continuous clinical operation. The refrigeration capacity is reliably generated under even the most extreme climatic conditions. The technical concept of the devices meets the high requirements of noise emission control and is both ecologically and economically ground-breaking. At 35 dB(A), GDTS cooling systems are extremely quiet. Additionally, the medical chiller guarantees 98 percent uptime, meaning the MRT device remains consistently cool at all times when in use at full capacity – even at outside temperatures between minus 37 and plus 55 degrees Celsius.

### **Offering even more safety: GDTS Smart Monitoring.**

The promise: GDTS cooling systems always work! They are extremely robust and durable. Smart monitoring and predictive maintenance mean that failures are sure not to occur. GDTS Smart Monitoring continuously monitors and analyses the system. All relevant data is quickly and easily accessible. The operating status and system parameters are closely monitored by digital means. As a result, any exceeding of limits or malfunction is quickly detected and promptly reported. Comprehensive service packages round off the GDTS portfolio.

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## **About Glen Dimplex Thermal Solutions and the Glen Dimplex Group.**

Glen Dimplex Thermal Solutions (GDTS) is part of the international Glen Dimplex Group based in Ireland - a leading international supplier of electric heating solutions and domestic appliances.

With GDTS the company combines the knowledge and expertise of the group for the development of highly efficient system solutions for the heating, cooling and ventilation of buildings, as well as commercial and industrial applications. GDTS unites the group's subsidiaries based in Kalamazoo (USA), Shenyang (China) and Kulmbach and Sonneberg. The GDTS Division is managed by CEO Jochen Engelke.

At its HQ in Kulmbach, Glen Dimplex Thermal Solutions has stood for expertise in heating and refrigeration for over 40 years. This is where energy-efficient heating and air-conditioning systems are designed by our engineers and technicians at our in-house Development department and perfected to market maturity. Products by Glen Dimplex Thermal Solutions are a byword for engineering expertise, quality and design "Made in Germany". Some 800 staff are employed at the sites based in Germany.

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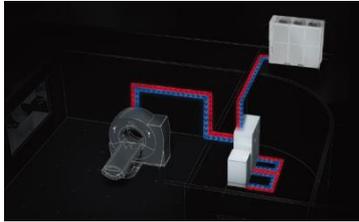
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**Image legend:**



**Image 1:** Medical cooling: The world's leading medical technology manufacturers rely on intelligent cooling systems from Glen Dimplex Thermal Solutions. GDTS is a world market leader in system separators for MRT applications.



**Image 2:** Industrial cooling: For reliable cooling of machine tools and plastics machinery, with or without lasers.



**Image 3:** GDTS offers systematic, customised machine and process cooling. Highly integrated and providing maximum fail-safety. For industrial, commercial or medical applications. More than 50 years of expertise in refrigeration circuits speak for themselves.



**Image 4:** Smart Monitoring from GDTS: Precise digital monitoring of operating states and system parameters. Any exceeding of limits or malfunction is quickly detected and promptly reported.

**This press release is also available for download as a Word document with photographs on our website at: [www.gdts.one/en/press](http://www.gdts.one/en/press).**