For Immediate Release

For more information, please contact:
Karl von Gunten
Director of Marketing
+1 919-931-1434
Karl.vonGunten@lairdthermal.com

Compact Recirculating Chillers From Laird Deliver Precise Temperature Control in Laser Systems

The compact MRC Series benchtop recirculating chiller offers considerable size and weight advantage over conventional compressor-based systems…

March 23, 2017 – Laird Thermal Systems has designed a benchtop recirculating chiller for laser applications that require precise and continuous temperature control. The self-contained MRC Series thermoelectric recirculating chiller offers dependable, compact performance by controlling the temperature of a coolant in a liquid circuit. In applications with a cooling capacity requirement below 400 Watts, the compact MRC Series offers a considerable size and weight advantage over conventional compressor-based systems.

With a cooling capacity up to 290 Watts, the MRC Series can cool the coolant to well below the ambient temperature. This makes it well suited for a wide range of laser systems including diode-pumped solid state (DPSS) laser systems used for meticulous cutting in high-tech manufacturing processes and semiconductor wafer cutting. The benchtop recirculating chiller is also applied in medical laser systems for cutting human tissue in cosmetic treatments, and for maintaining the temperature of imaging detector heads used in capturing high-resolution images of patients.

Offering long life operation and a high MTBF (mean time between failure), the heat pumping action occurs from a custom designed thermoelectric cooler that dissipates heat to the outside environment. The unit is regulated with an easy-to-use digital temperature controller and is housed inside an aesthetic sheet metal casing.

Additional features can be included to add variable flow control, bypass control, coolant filtration and electronics in order to meet unique application requirements.

“Laird designs and manufactures customized, performance-critical cooling systems for advanced laser systems. These highly reliable thermoelectric liquid chillers improve the performance laser systems,

particularly when compared to conventional compressor-based cooling systems," said Anders Kottenauer, Senior Vice President of Laird's Engineered Thermal Systems Business. "In addition, there are no HFC or CFC refrigerants, so the design contains less moving parts, requires less maintenance, and does not harm the environment. This makes the product ideal for integrating into laser or imaging systems that have tight geometric space constraints and weight limit requirements."

The MRC controller can control the temperature of a liquid circuit from -12 degree C to 40 degree C. The unit operates on universal input 115/230 VAC and is UL/IEC rated. Custom configurations are available.

More information on Laird's custom liquid cooling systems can be found by visiting https://www.lairdthermal.com/products/product-series/mrc-series

About Laird Thermal Systems

Laird Thermal Systems develops thermal management solutions for demanding applications across global medical, industrial, transportation and telecommunications markets. We manufacture one of the most diverse product portfolios in the industry ranging from active thermoelectric coolers and assemblies to temperature controllers and liquid cooling systems. Our engineers use advanced thermal modeling and management techniques to solve complex heat and temperature control problems. By offering a broad range of design, prototyping and in-house testing capabilities, we partner closely with our customers across the entire product development lifecycle to reduce risk and accelerate their time-to-market. Our global manufacturing and support resources help customers maximize productivity, uptime, performance and product quality. Laird Thermal Systems is the optimum choice for standard or custom thermal solutions. Learn more by visiting www.lairdthermal.com