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PRESS RELEASE

Pfannenberg introduces compact PC 2500 chiller

The new chiller from Pfannenberg is characterized by quiet operation, energy efficiency and significant load capacity even at high ambient temperatures.

Hamburg, 6 March 2018. Production safety specialist Pfannenberg has announced the development of its PC 2500 air-cooled water/glycol chiller, a cost-efficient, standard solution in a compact design that offers a high-quality alternative to commercially available units in this class. In its performance class of 2.5 kW, the PC 2500 is also designed for use in very warm environments up to +50° Celsius. Users benefit from increased reliability and lower operating costs. Its compact design makes the PC 2500 ideal for machine tool or production line applications, and the PC 2500 can also be deployed in e.g. manufacturing and laboratory technology and non-destructive material testing, for example in industrial X-ray technology.

"Challenging operating conditions such as high ambient temperatures place great demands on the technology. At the same time, the maintenance effort needs to remain manageable. For users, low maintenance costs are just as important as acquisition costs and low installation effort," explains Uwe Eckstein, Sales Product Manager for chillers at Pfannenberg. "The PC 2500 combines compact design, good performance and low maintenance needs into a very cost-effective solution."

Powerful pump and small amount of refrigerant

The heart of the PC 2500 is a powerful pump distinguished both by its high energy efficiency and low volume during operation. The chiller is operated with the common refrigerant R 134a, which, unlike mixed refrigerants such as R 407c, significantly simplifies servicing. The use of micro-channel technology gives the PC 2500 another advantage since it permits a small amount of refrigerant to be used.

Different variants available

In addition to the basic version, the PC 2500 is available in three additional configurations based on the product features "Hydraulic Protection", "Smart Cooling"

and "Precision Cooling", which Pfannenberg has now introduced for all standard equipment. The introduction of preconfigured units has both improved availability as well as made the service offered by Pfannenberg worldwide significantly easier and faster. All units with a configuration that incorporates the "Hydraulic Protection" feature have an adjustable flow meter and overpressure valve that triggers an alarm if the flow is too low or too high.

All configurations with the "Smart Cooling" feature offer the user enhanced data acquisition and display in the event of faults detected in the system. The error codes shown on the display and the data logging feature mean that downtimes can be quickly reduced and preventive maintenance measures taken. In addition, the targeted cooling temperature can be controlled not only by using a fixed value, but also updated via a temperature difference control that factors in the ambient temperature. This is particularly useful if an application has increased requirements with respect to preventing condensation and elongation differences. An integrated temperature monitor issues an alert if the temperature of the coolant rises or falls unexpectedly.

For devices with the "Precision Cooling" feature, the control precision of the target temperature can be set to ± 1K without reducing the service life of central components of the system. In configurations with this feature, the PC 2500 has a hot gas bypass and fan control. The hot gas bypass improves the accuracy of the temperature control without burdening the compressor with excessive switching on and off. The "Fan on/off function" contributes to the accuracy of temperature control by influencing the performance of the condenser heat exchanger. In addition to precise temperature control, its gentle, non-damaging operation is a positive aspect of this configuration.

The PC 2500 comes standard with a micro-channel condenser that ensures high efficiency and a compact design. All units in the series feature an iron-free hydraulic circuit and standard pump protection against dry operation and overpressure. As an accessory, Pfannenberg pre-fix filters can be used if a high level of ambient air pollution with dust and oil mist is expected. In addition, water filters can be used as

accessories. The units are uniformly painted black gray to ensure good compatibility with other colors.

Captions:

PF001365_Image1: Pfannenberg's compact, air-cooled water/glycol chiller PC 2500 with a capacity of 2.5 kW is also designed for use in very warm environments up to +50° Celsius.

PF001365_Image2: Pfannenberg's compact PC 2500 chiller can be equipped quickly and easily with additional pre-fix filters.

About Pfannenberg

Pfannenberg is a medium-sized company which provides innovative and high-quality electro-technology for industry. Today, the company belongs to the global players of this industry with its headquarters is in Hamburg, Germany and its locations in Brazil, China, England, France, Italy, Russia, Singapore and the USA. The product portfolio comprises components and system solutions for the thermal management of electrical enclosures, chillers, visible and audible signaling technology and custom solutions. A special highlight in the Pfannenberg portfolio is the designed illuminations which are commissioned by architects, designers, and urban and spatial planners (www.art-illumination.com).

You can find more information about Pfannenberg on: http://www.pfannenberg.com

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