



Press Release
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With several new features, SINGLE Temperiertechnik GmbH boosts the efficiency of its products

EcoPlus label for highly energy-efficient temperature control and cooling systems

The EcoPlus label for particularly high efficiency and low energy consumption now marks several products across the range of SINGLE Temperiertechnik GmbH, Hochdorf/Germany. This achievement is the result of specific hydraulic, electric or thermally effective special equipment for temperature control systems and cooling systems. Short amortisation times speak in favour of equipping systems with high-quality, efficient components.

Plastics processors who are struggling with high energy costs and are interested in minimising the energy consumption of installed ancillary equipment will benefit from new technical improvements which are highlighted by the EcoPlus label.

Temperature control systems of the N1, NS and S are marked by the EcoPlus label because of additional equipment such as Grundfos centrifugal pumps, which replace the standard peripheral impeller pumps. The power efficiency of these state-of-the-art centrifugal pumps is increased by a factor of three. As compact units, these pumps consume significantly less energy in standard systems but achieve a comparable flow rate. With their high power efficiency, all motor sizes for Grundfos centrifugal pumps belong to IE3, the highest motor efficiency class.

ATT, the most energy-efficient active alternating temperature control system

By returning the temperature control media after cycle switch-over, the ATT (Alternating Temperature Technology) recovers the maximum energy content of liquid media. This approach is not possible with cartridge heaters, ceramic elements or induction heating used in combination with water cooling. In contrast with ATT, other fluid alternating temperature control systems have either no container or no comparable intelligent media return. Comparative measurements during injection moulding processes have proven the superior energy efficiency of the ATT system time and again, which is now expressed by the EcoPlus label.

EcoTemp's efficiency is superior to conventional temperature control

In cyclical processes such as injection moulding, the EcoTemp passive alternating temperature control interrupts the cooling of the mould during the injection phase, so as to allow the cavity wall to heat up. This presents two major advantages over conventional temperature control with a constant supply

temperature: first, EcoTemp can shorten the cycle time, frequently achieving savings in the double digit percentage range. Many tests conducted by process engineers have proven that higher cavity temperatures during injection moulding followed by a more intense cooling phase saves cycle times. Second, EcoTemp can help reduce the supply temperature during cyclical processes. As these processes often operate with heat even during the cooling phase, a lower supply temperature reduces the amount of heating energy required and is therefore superior to conventional control systems. Evidence for both correlations was gathered and documented during the injection moulding processes of a renowned supplier to the electronics industry. During these production runs, the energy saved over conventional temperature control systems amounted to 38 %. Therefore, all EcoTemp systems are marked with the EcoPlus label.

Pump speed control saves energy

All SINGLE temperature control and cooling systems with pump speed control have also been awarded the EcoPlus label. Thanks to this feature, the system's pump speed, i.e. the flow rate, can be limited to the capacity required for the process at hand. The reduction of the energy consumed by the optional pump is disproportionate to the pump speed reduction.



The EcoPlus label marks SINGLE temperature control and cooling systems with highly energy-efficient equipment

Label by SINGLE Temperiertechnik GmbH, Hochdorf/Germany

SINGLE in profile

SINGLE has been developing, producing and selling high-performance temperature control systems for more than forty years. The company's product portfolio consists of water- and oil-operated, high-quality temperature control systems, cooling technology as well as tailor-made and customised solutions. SINGLE uses only top-quality components and materials. Long-standing customers testify to the ease-of-use and the reliable operation of SINGLE systems even under a high workload.

SINGLE offers a complete standard range of oil- and pressurised-water-operated systems with maximum heating capacities of 144 kW and



temperatures of between -40°C and +350°C. In addition to this, SINGLE provides extensive engineering and caters to all phases of the process chain with systems from one source – from initial product conception, design, production and final assembly of temperature control technology systems right through to the installation's initial operation.

In addition to plastics processors and manufacturers of plastics processing machines, SINGLE caters to customers in the die-casting, chemical and pharmaceutical industry as well as to the metal plating industry, the food production segment and is used for test bench technology and many more applications.

A network of regional sales partners and service points as well as subsidiaries in the US and China are the cornerstones of SINGLE's international presence. Services and after-sales support on all temperature-control related matters, commissioning and on- and off-site training complete SINGLE's portfolio. SINGLE is certified to EN ISO 9001:2000, has technology and manufacturer certifications that meet the European Pressure Equipment Directive (PED) and complies with standards such as UL and regional directives to CSA and GOST.

The company, which employs about 140 people at its facility in Hochdorf near Stuttgart/Germany, has been a member of Looser Holding AG of Winterthur/Switzerland since 2006.

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