



Press Release  
14 June 2010

SINGLE system with integrated flow meter and temperature measurement

## **SWV water distribution system provides valuable process information for injection moulding medical parts**

**The compact SWV water distribution system with integrated flow meter presented by SINGLE Temperiertechnik of Hochdorf/Germany meets the exacting requirements encountered during the injection moulding of medical and medical engineering parts. The contour-aligned system distributes cooling or transfer media to up to 32 circuits. Wear-resistant, contamination-free, highly precise and clean, the system provides reliable mould, status and process monitoring data based on flow rate and temperature information from every individual circuit.**

Mould temperature control information is an invaluable tool for evaluating the process and system status. In a clogged cooling circuit for instance, the flow rate will drop while temperatures will rise. These significant changes can only be detected by a circuitous flow meter and temperature measurement system, but not by collective flow metering or return temperature measurement.

The SWV offers processors an easy method of segmented and machine-integrated mould temperature control. This is of particular benefit as these functions are now available without the formerly required specially constructed systems. Despite the fact that SWV provides distribution as well as flow metering and temperature measurement functions, it is more compact than conventional products and easily integrates into injection moulding machines or mould spaces. It delivers all required processes in one single system and helps processors introduce multi-circuit mould temperature control to their production processes.

The SWV water distribution system is designed for wear-resistant flow metering according to the eddy current method with a metering range of between 1 and 12 l/min or 2 and 40 l/min and temperatures of up to 100°C as standard. It transmits all data either directly to the injection moulding machine or to the SINGLE SC controller. A measuring point for median pressure and overall flow temperature can be added as an option. Solenoid valves for shutting off individual circuits are also available as an option.

### **Combining SWV with the SC controller**

Operating in combination with the SINGLE SC controller, SWV is ideal for automatic flow metering as well as for end-to-end monitoring of up to 32 temperature circuits and media return temperatures of up to 16 circuits. The SC controller provides a wide variety of interfaces for transferring data to the injection machine's control system for process monitoring or to other data acquisition systems or central computers for process documentation. The

combination of SWV with temperature measurement and SC controller is ideal for highly transparent processes and is suitable for clean-room production of sensitive medical and medical engineering parts.

#### **Better than float-type flow meters**

In contrast to conventional float-type flow meters, the SWV water distribution system is maintenance-free. While float-type flow meters may be less expensive, they have a significant drawback. Incidence of light leads to algae growth, which contaminates the system. The algae layer obstructs the view through the inspection window and leads to a gradual reduction of the flow rate and deterioration of the heat transport from the mould, which results in uncontrollable variations of the part quality.

#### **SWV - Water distribution system for injection moulding machines**

With its compact footprint, the SINGLE SWV water distribution system is a space-saving solution for installation in injection moulding machines. As a maintenance-free system, SWV is an economically viable alternative to conventional float-type flow meters.



*SWV water distribution system for wear-resistant and precise flow metering and return temperature measurement operated on an injection moulding machine with particularly short mould connection tubes*

*Photo by:  
SINGLE Temperiertechnik GmbH,  
Hochdorf/Germany*



*The SWV water distribution system is combined with an SC controller for metering and monitoring the flow rate and media return temperatures*

*Photo by:  
 SINGLE Temperiertechnik GmbH,  
 Hochdorf/Germany*

### **SINGLE in profile**

SINGLE has been developing, producing and selling high-performance temperature control systems for more than 40 years. The company's product portfolio consists of water and oil-operated, high-quality temperature control systems, heat transfer units, water-to-water chillers, as well as customized solutions. SINGLE uses only high-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.

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 a subsidiary in the US are the cornerstones of SINGLE's international presence. Services and after-sales support on all temperature-control related problems, commissioning, on- and off-site training complete SINGLE's portfolio. SINGLE is certified to EN ISO 9001, 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 110 people, has been a member of Looser Holding AG of Arbon/Switzerland since 2006.

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