

Heating and Cooling Unit

TT-608 Z

SWITCH-TEMP - Oil unit with 2 temperature circuits for cyclic heating and cooling

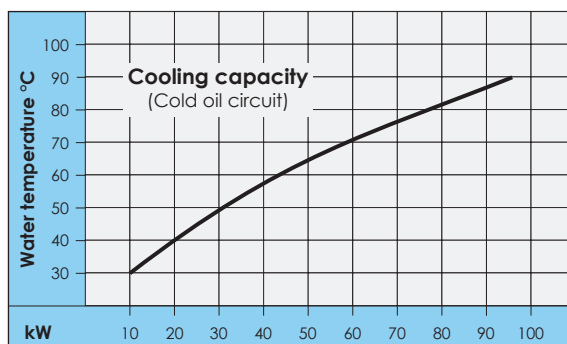
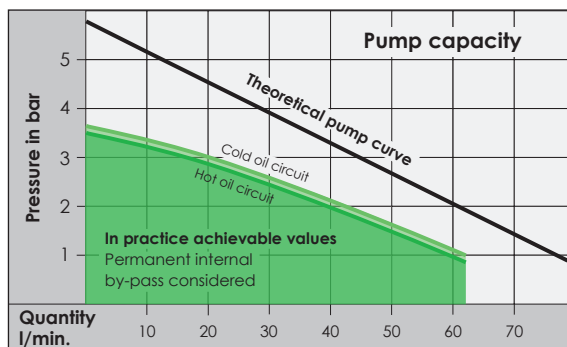
Temperature range from 30°C up to 80°C (cold oil circuit) / 80°C up to 300°C (hot oil circuit)
Heating capacity (hot oil circuit) 24 kW or 48 kW

The unit enables to switch within seconds between two independent circuits.



Features included

- Self-optimizing temperature controller with digital display of the set and actual temperature. With high precision regulation in $1/10^\circ$ range; can be adjusted to read °C or °F.
- Automatic temperature control - difference between set and actual temperature activates an alarm.
- Digital flow indication with control of the minimum flow.
- Indication of the pump pressure.
- Circuits with by-pass, which ensures internal circulation if valves are closed.
- Leak free high temperature pump with axial face seal.
- Large expansion tank with a drip pan.
- No oil cracking because of special construction of the heating elements.
- Heating with automatic cascade connection.
- Safety devices:
 - Level control for dry run protection.
 - Electronic temperature limiter in the controller and separate mechanical safety thermostat.
 - Main switch, transformer and motor protection switch.
 - Horn in case of failure.
- All failures are visually indicated.



Working principle

The oil unit has two independent circuits which can operated at different temperatures.

The circuit 1 (hot oil circuit) or circuit 2 (cold oil circuit) can be switched on by pneumatic valves. It can be done manually or by using an external signal.



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Technical data

Hot oil circuit

Cold oil circuit

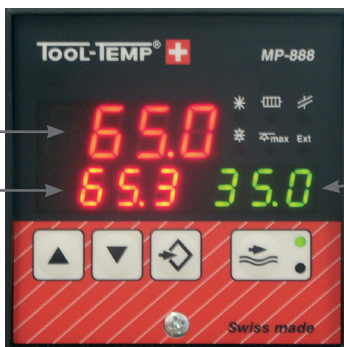
Temperature range	80°C up to 300°C	30°C up to 80°C
Temperature control	2 self-optimizing, electronic microprocessor controllers MP-888 with digital display of the set and actual value. Automatic temperature monitoring.	
Flow control	electronically, with digital display and automatic control of the minimum flow.	
Heating capacity <i>Switchable in stages</i>	24 kW 8/16 automatic shut down of the heating capacity which is not required	48 kW 24/24 -
Cooling capacity		approx. 93 kW at 90°C
Pump capacity	motor 1,8 kW max. 5,5 bar / max. 100 l/min	motor 1,8 kW max. 5,5 bar / max. 100 l/min
Expansion tank capacity	96 litres	
Filling amount	100 litres (hot oil circuit 50 litres / cold oil circuit 50 litres)	
Expansion volume	75 litres	
Connections		
<i>Oil circuit</i>	¾" BSP female thread	
<i>Cooling water circuit</i>	¾" BSP female thread	
Dimensions (LxWxH)	1'710 × 790 × 1'540 mm	
Weight	approx. 540 kg empty	
Colour	silvergrey RAL 7001	

The heat-up and cool-down times are depending on the mould weight. The fastest cycle time can be achieved with small moulds. Sufficiently large form channels are also important. Faster times can be achieved if each mould half is equipped with a separate unit.

Electronic temperature controller MP-888

The electronic controller MP-888 can be operated to read °C or °F. The analog interfaces 0-5 V, 0-10 V and 4-20 mA are standard included in the controller - **without additional costs.**

Set temperature / required temperature adjustable in 1/10° range.



The self-optimizing feature on this controller allows a very high regulating accuracy even at high temperatures and adheres to the set temperatures independently of the consumer size.

Flow control:

The indication of the flow rate is possible in litres or gallons per minute. As soon as the flow falls below a minimum, the alarm is activated.

Actual temperature / effective temperature displayed in 1/10° range.



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