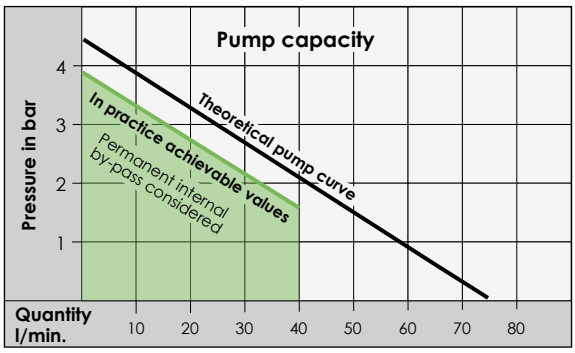
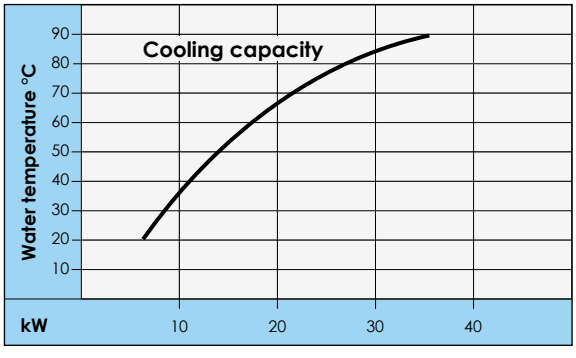
Temperature Control Unit

TT-188

Powerful universal unit for water or oil operation with leakstopper mode

Operational use: **with water up to 90°C mould weight up to 600 kg**
with oil up to 150°C mould weight up to 300 kg





Features included

- Self-optimizing temperature controller with digital display of the set and actual temperature. With high precision regulation in ¹/₁₀° range; can be adjusted to read °C or °F.
- Automatic temperature control - difference between set and actual temperature activates an alarm.
- Submersible seal less pump manufactured from bronze.
- Pressure is indicated by manometer.
- Automatic or manual refill.
- Lime scale free heat exchanger.
- Corrosion resistant unit (longevity).
- All components in contact with water are made of corrosion resistant stainless steel or bronze.
- Heating switchable in stages.
- 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.
- Unit on castors.

Particularities

- Digital flow indication with control of the minimum flow.
- Automatic mould drain.
- Leakstopper device - unit can be used in pressure or vacuum mode. No medium is lost on leaking tools, therefore ensuring continued production.
- Optional with digital interface controller MP-988.

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Technical data

Temperature range	with water up to 90°C	with oil up to 150°C
Temperature control	self-optimizing, electronic microprocessor controller 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	**9 kW water operation**	**3 kW oil operation**
Switchable in stages	3 / 6	none
Cooling capacity	35 kW at 90°C - see diagram	
Pump capacity	motor 0,75 kW	
Pressure mode	max. 4,5 bar / max. 75 l/min.	
Vacuum mode	vacuum max. 8 mH_2O	
Filling amount	min. 5 litres, max. 7 litres	
Connections		
Medium	½" BSP female thread	
Cooling water	⅜" BSP male thread, inlet with water filter ⅜" BSP female thread	
Dimensions (L×W×H)	670 × 260 × 650 mm, incl. castors	
Weight	approx. 55 kg empty	
Colour	silvergrey RAL 7001	

All possible voltages are available from 3 x 200 V to 3 x 600 V and 50/60 Hz. The units are available conform to UL/CSA specifications. For the USA market the units are equipped with NPT-thread connections and the controller is adjusted to indicate °F.

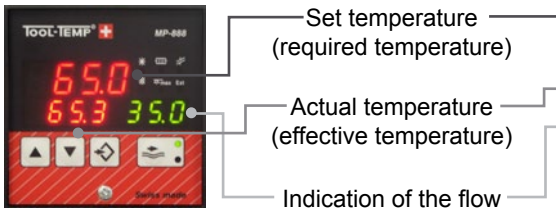
Electronic temperature controllers

The electronic controllers MP-888 and MP-988 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 controllers - **without additional costs**.

The self-optimizing feature on these controllers 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.

Standard controller MP-888



Analog interfaces

- 0 - 5 V, 0 - 10 V, 4 - 20 mA

Digital interface controller MP-988 (Optional)

Digital interface

- RS-485, RS-232, Current Loop 20 mA, CAN-bus, Profibus
- Incl. all existing machine protocols

Temperature difference monitoring

Indication of up to three temperatures

Analog interfaces

- 0 - 5 V, 0 - 10 V, 4 - 20 mA

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05/2014