

Heating and Cooling Unit

TT-1368 V

For temperatures from 20°C up to 90°C with very high cooling capacity
Powerful unit with high volume pump and a large return volume

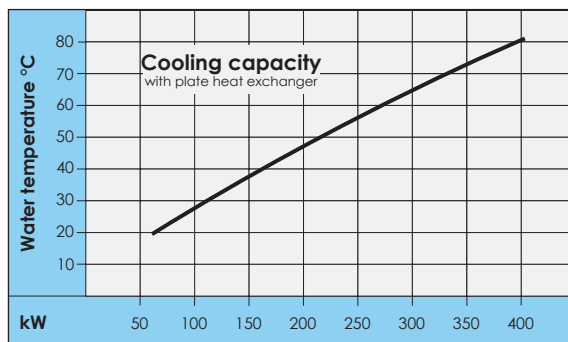
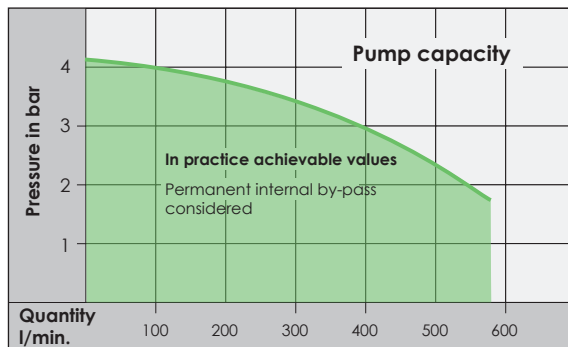
Operational use:

Heavy duty use; rollers, plates, double walled vessels with large water circulation



Features included

- Self-optimizing temperature controller with digital display of the set and actual temperature. With high precision regulation in $\frac{1}{10}^{\circ}$ 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.
- Automatic water filling.
- Large return volume.
- All components in contact with water are made of stainless steel.
- 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.
- Unit on feet.



Option

- Equipped with the controller MP-988 allows over 30 different digital interfaces: RS-232, RS-485, Current Loop 20mA, CAN-bus, Profibus etc.
- Digital clock timer.
- External control of the controller.
- Collective alarm.
- With regulation of pressure.



TOOL-TEMP

Technical data

Temperature range	20°C up to 90°C with water
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 <i>Switchable in stages</i>	72 kW 16/16/16/8/8/8 automatic switching of the required heating power
Cooling capacity	approx. 400 kW at 80°C
Pump capacity	motor 7,5 kW max. 4,1 bar / max. 580 l/min
Filling amount	auto. filling - approx. 100 Litre
Return volume	approx. 100 Litre
Connections	
<i>Medium</i>	Flange DN32, PN16
<i>Cooling water</i>	1½" BSP female thread
Dimensions (LxWxH)	2'150 × 1'300 × 1'950 mm
Weight (empty)	approx. 915 kg
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.

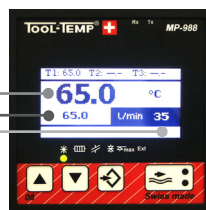
Standard controller MP-888



Analog interfaces

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

Digital interface controller MP-988 (Optional)



Analog interfaces

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

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

TOOL-TEMP®