

# Temperature Control Unit

# TT-1398

Small, powerful pressurised water unit for small injection moulds

Operational use: with water up to 140°C

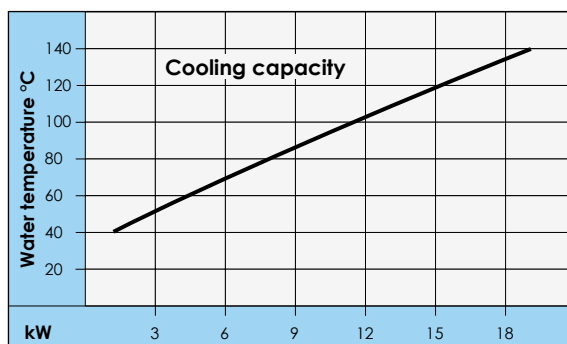
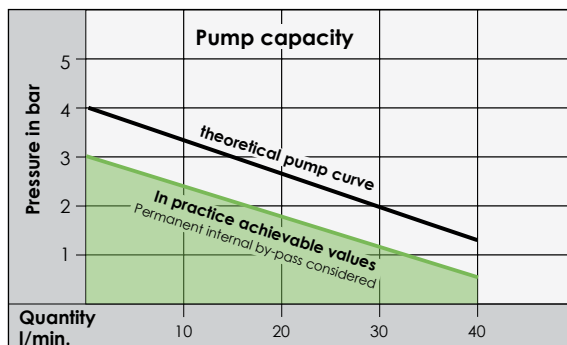
Standard unit with controller MP-888

Unit with digital interface controller MP-988



## 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 system pressure.
- Pressure discharge, aeration and water filling.
- Lime scale free heat exchanger.
- Standard pump with axial face seal.
- All components in contact with water are made of 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 as failure indication.
- All failures are also indicated visually.
- Unit on castors.



## Optional

Equipped with the controller MP-988 allows over 30 different digital interfaces: RS-232, RS-485, Current Loop 20mA, CAN-bus, Profibus etc.



# TOOL-TEMP®

## Technical data

### Temperature range

water up to 140°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 monitoring of the minimal flow.

### Heating capacity

**6 kW**

Switchable in stages 3/3

### Cooling capacity

approx. 20 kW at 140°C

### Pump capacity

motor 1,3 kW  
max. 4 bar / max. 40 l/min.

### Filling

automatic

### Connections

Medium 1/2" BSP female thread

Cooling water 3/8" BSP female thread, inlet with water filter 3/8" female thread

### Dimensions (L×W×H)

680 × 305 × 760 mm, incl. castors

### Weight

approx. 70 kg empty

### Colour

silver grey 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



Set temperature  
(required temperature)

Actual temperature  
(effective temperature)

Indication of the flow

### Analog interfaces

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

### Digital interface controller MP-988 (Optional)



### Digital interface

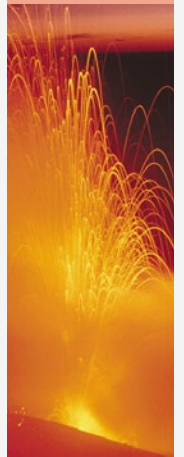
- RS-485, RS-232, Current Loop 20 mA, CAN-bus, Profibus
- Incl. all existing machine protocols

### Temperature difference monitoring

Indication of up to three temperatures

### Analog interfaces

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



TOOL-TEMP