

# Temperature Control Unit

# TT-118 K

Powerfull heating- and cooling unit for rollers, calenders, plates, double walled vessels and other large consumers

## With electronic flow control

Operational use: With water from 25°C up to 90°C

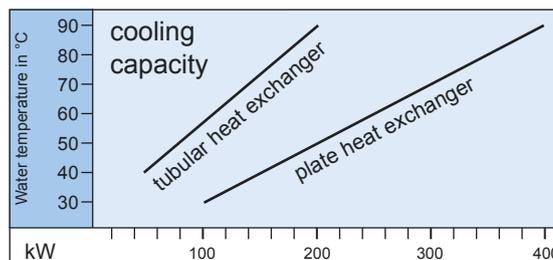
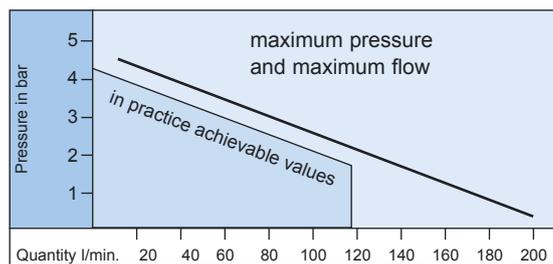
The unit is equipped with two different heat exchangers:

- A lime-free tubular heat exchanger operates between 50°C and 90°C.
- Below 50°C you can switch over to a plate heat exchanger, which increases the cooling capacity enormously.



## Features included

- Digital flow indication with control of the minimum flow.
- Automatic temperature control - difference between set and actual temperature activates an alarm.
- Submersible seal less pump manufactured of bronze. Pressure is indicated by a manometer.
- 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 indicate °C or °F.
- Reversing switch for temperature controlling at the mould with connection for external thermocouple.
- Heating switchable in stages - the unnecessary heating capacity will switch off automatically if the required temperature is reached, this means it only regulates with the needed heating power.
- Leakstopper device – unit can be used in pressure or vacuum mode. No water is lost at leaking tools, therefore ensuring continuous production.
- Corrosion free unit with a long life span.
- All components in contact with water are made of stainless steel or bronze.
- Automatic water refill.
- Time-limited water refilling – prevents an uncontrolled filling if working with defective hoses.
- Safety devices:
  - The pre-warning indicates a low level. The unit continues to operate. If the level continues to drop, the unit switches off.
  - Separate mechanical safety thermostat and electronic temperature limiter installed in the controller.
  - Main switch, automatic cutout, transformer and motor protection switch.
  - Horn in case of failure: The level pre-warning is indicated with a continuous sound. All other safety information is indicated by an intermittent sound.
- Castors.



## TOOL-TEMP AG

Industriestrasse 30

CH-8583 Sulgen

Schweiz - Suisse - Switzerland

Tel.: +41 (0)71 644 77 77

Fax: +41 (0)71 644 77 00

E-Mail: [info@tool-temp.ch](mailto:info@tool-temp.ch)

Internet: [www.tool-temp.ch](http://www.tool-temp.ch)



**TOOL-TEMP**

## Technical data

There are 4 different models available

<b>Heating capacity</b>	<b>18 kW</b>	<b>27 kW</b>	<b>36 kW</b>	<b>45 kW</b>
<i>Switchable in stages</i>	9 / 9	9 / 9 / 9	9 / 9 / 9 / 9	9 / 9 / 9 / 18
<i>Autom. switch off</i>	no	yes	yes	yes
	the unnecessary heating capacity will switch off automatically.			
<b>Temperature range</b>	25°C up to 90°C with water.			
<b>Temperature control</b>	self-optimizing, electronic microprocessor controller MP-888 with digital display of the set and actual value. Automatic temperature monitoring.			
<b>Flow control</b>	electronically, with digital display and automatic control of the minimum flow.			
<b>Cooling capacity</b>	tubular heat exchanger mod. 66/10 plate heat exchanger mod. 82, 190 kW resp. 400 kW (see diagram)			
<b>Pump capacity</b>	motor 2,2 kW			
<i>Pressure mode</i>	max. 4,5 bar / max. 200 l/min.			
<i>Vacuum mode</i>	vacuum max. 8 mH <sub>2</sub> O			
<b>Content of unit</b>	minimal 26 Liter, maximal 40 Liter			
<b>Connections</b>				
<i>Medium</i>	1" BSP male thread			
<i>Cooling water</i>	1" BSP male thread			
<b>Dimensions</b>	Length: 1'210 x Width: 480 x Height: 1'400 mm, incl. castors			
<b>Weight</b>	approx. 180 kg empty			
<b>Colour</b>	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 controller MP-888

The electronic controller can be adjusted to indicate °C or °F. The analogue interfaces 0 – 5 V, 0 – 10 V and 4 – 20 mA are standard included in the controller – there is **no additional price** for them.

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.



Set temperature (required temperature)  
Adjustable in 1/10° range

Actual temperature (effective temperature) displayed in 1/10° range

Indication of flow rate in different units, possible are litres per minute with 1/10 litres display. Switchable from English to American gallons. As soon as the flow falls below a minimum, the alarm is activated automatically.

**Flow control with automatic or manual pre-adjusted mode:**  
Automatic: Everything is set automatically. The electronic flow control measures the actual flow. As soon as the flow falls below this value, the alarm will be activated.  
Manual: The minimum flow can be adjusted manually. As soon as the flow falls below this value, the alarm will be activated.



**TOOL-TEMP**