

Temperature Control Unit

TT-288

For temperatures up to 250°C

TT-288 Z Standard pump with axial face seal

TT-288 A Pump with seal less magnetic drive

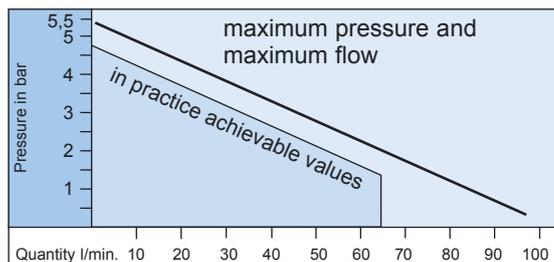
With electronic flow control

Operational use: moulds in the plastic industry, moulds in the die casting industry, small rollers and plates

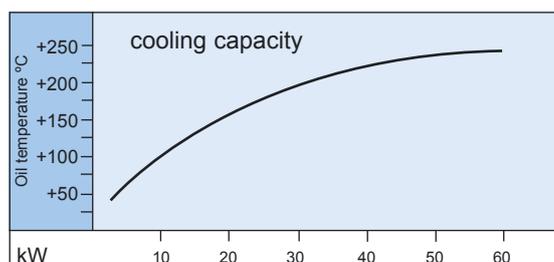


Features included

- Digital flow indication with control of the minimum flow - switchable l/min, Imperial gal/min, US gal/min.
- Self-optimizing temperature controller unit 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.
- Automatic temperature control - difference between set and actual temperature activates an alarm.
- Leakstopper device – unit can be used in pressure or vacuum mode. No medium is lost at leaking tools, therefore ensuring continuous production.
- Lime scale free heat exchanger made of stainless steel.
- Automatic mould drain.
- Reversing switch for temperature controlling at the mould with connection for external thermocouple.
- Low loaded heating elements - No oil cracking.
- Safety devices:
 - Automatic level control for dry run protection.
 - Separate mechanical safety thermostat and electronic temperature limiter installed in the controller.
 - Main switch, automatic cutouts, transformer and motor protection switch.
- Horn in case of failure.
- Castors.



Closed hot oil circuit with integral cold oil receiver in a large expansion tank. Oil cracking is impossible. Long life expectancy of oil due to low loaded heating elements and a high flow rate. A drip pan under the expansion tank prevents the unit from getting dirty if it gets filled incorrectly. This model is designed for highest temperatures and optimum safety.



The "heart" of the unit

High temperature pump built for temperatures up to 400°C. Pump shaft with three bearings and special lubrication. Developed and built by TOOL-TEMP.

Model Z: Since years approved pump with axial face seal and triple sealing system.

Model A: Pump with seal less magnetic drive.

TOOL-TEMP-units do not have to be cooled down before switching off.

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TOOL-TEMP

Technical data

Temperature range	from 80°C up to 250°C with thermal oil.
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	8 kW, switchable in stages: 3 / 5 / 8 kW
Cooling capacity	approx. 40 kW at 200°C oil temperature
Pump capacity	motor 1,8 kW
<i>Pressure mode</i>	max. 5,5 bar / max. 100 l/min.
<i>Vacuum mode</i>	Vacuum max. 9 mH ₂ O
Content of unit	9 litres
Expansion tank	Installed in the unit, expansion volume 12 litres
Connections	
<i>Oil circuit</i>	3/4" BSP female thread
<i>Cooling water</i>	1" BSP male thread
Dimensions	Length: 1'130 x Width: 390 x Height: 1'070 mm, incl. castors
Weight	approx. 150 kg empty
Colour	Silver grey RAL 7001
Heat exchanger	The lime scale free heat exchanger is a special construction made of stainless steel, developed and manufactured by TOOL-TEMP AG. The fact that the unit can be dismantled allows rapid and easy cleaning, although this will not be necessary during the first few years of operation.
Special execution	This model is also available as a double circuit unit TT-288/2. The unit is larger - all technical datas are identical.

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.

Flow control with automatic or manual pre-adjusted mode:

Automatic: The electronic flow control measures the actual flow, generates automatically a minimum flow and 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.



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