

Temperature Control Unit

TT-248

Oil unit for temperatures up to 200°C

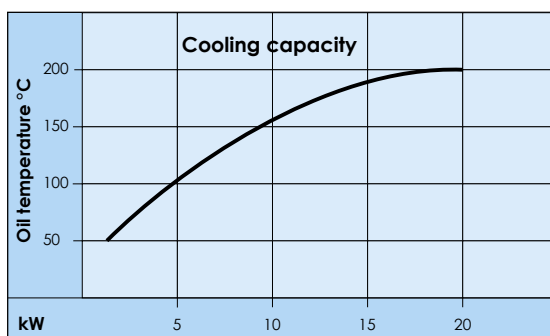
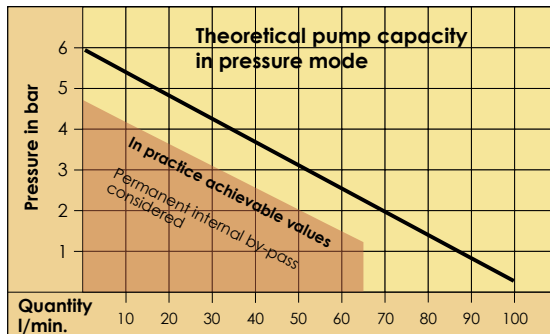
Suitable for injection moulds up to 600 kg

With electronic flow control



Features included

- Digital flow indication with control of the minimum flow.
- Automatic temperature control - a difference between set and actual temperature activates an alarm.
- 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.
- Automatic mould drain.
- Leakstopper device – the 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.
- Reversing switch for temperature controlling at the mould; possible to measure the mould temperature thanks to a external thermocouple connection.
- Low loaded heating elements - No oil cracking.
- Safety devices:
 - Automatic level control for dry run protection.
 - Separate mechanical safety thermostat and electronic temperature limitation.
 - Main switch, automatic cutouts, transformer and motor protection switch.
- Horn in case of failure.
- All failure are additionally shown visually (control lamps)
- Castors



Operating principle

Closed hot oil circuit with cold oil receiver. 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.

The "heart" of the unit

High temperature pump built for temperatures up to 400°C. Pump shaft with three bearings and special lubrication. Triple sealing system. We guarantee a leak-proof system and a leak-resistant pump, even at the maximum working temperature.

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

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Technical data

Temperature range	For permanent temperatures up to 200°C with thermal oil
Temperature control	self-optimizing, electronic microprocessor controller MP-888 with digital display of the set and actual value.
Flow control	electronically, with digital display and automatic control of the minimum flow.
Heating capacity	8 kW
Cooling capacity	approx. 20 kW at 200°C oil temperature
Pump capacity	motor 1,8 kW
<i>Pressure mode</i>	max. 6 bar / max. 100 l/min.
<i>Vacuum mode</i>	Vacuum max. minus 0,8 bar
Content of the unit	8 litres
Expansion tank	8 litres
Expansion volume	6 litres
Connections	
<i>Oil circuit</i>	3/4" BSP female thread
<i>Cooling water</i>	1/2" BSP female thread
Dimensions	Length: 880 mm x Width: 360 mm x Height: 920 mm, incl. castors
Weight	approx. 120 kg empty
Colour	Silver grey RAL 7001
Heat exchanger	The practically lime scale free heat exchanger is a special construction made of stainless steel, developed and manufactured by TOOL-TEMP. The fact that the unit can be dismantled allows rapid and easy cleaning, although this will not be necessary during the first years of operation.

All worldwide possible voltages from 3 x 200 V to 3 x 600 V and frequencies 50/60 Hz are available. 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 standardly included in the controller **without additional price**.

The self-optimizing microprocessor temperature controller MP-888 is part of the standard equipment of all TOOL-TEMP Temperature Control Units. The self-optimizing feature allows a very high regulating accuracy even at high temperatures and adheres to the set temperatures independently of the weight of the consumer.



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

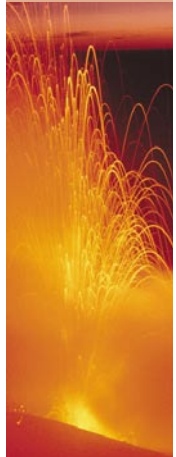
Actual temperature (effective temperature) displayed in 1/10° range

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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