## Temperature Control Unit

### TT-188

Powerful small temperature control unit

Operational use: with water up to 90°C with oil up to 150°C

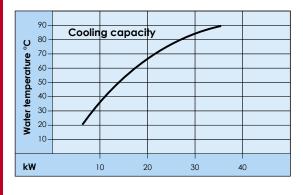
mould weight up to 600 kg mould weight up to 300 kg

#### With electronic flow control

can be used with water or oil operation and also in the leakstopper mode



# Theoretical pump capacity in pressure mode A horacice achievable to the considerable to the considerable



#### 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 from bronze.
- Self-optimizing temperature control unit with digital display of the set and actual temperature.
   With high precision regulation in <sup>1</sup>/<sub>10</sub>° range; can be adjusted to read °C or °F.
- · Automatic mould drain.
- Leakstopper device unit can be used in pressure or vacuum mode. No medium is lost on leaking tools, therefore ensuring continued production.
- Automatic water refill or manual oil refill.
- Lime scale free heat exchanger.
- · Long life expectancy due to corrosion free unit.
- All components in contact with water are made of stainless steel or bronze.
- Heating switchable in stages switchable from 3 kW oil operation to 9 kW water operation.
- Safety devices:
  - Level control with two different levels: pre-warning with indication lamp and acoustic alarm; the unit continues to operate. If further liquid is missing, the unit stops
  - 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 alarm for the level pre-warning is indicated with a continuous sound, all others with an intermittent sound.
- All failures are visually indicated.
- Castors.

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#### **Technical data**

**Temperature range** with water up to 90°C with oil up to 150°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 control of the

minimum flow.

**Heating capacity** (switchable) 9 kW water operation 3 kW oil operation

Switchable in stages 3 / 6 / 9 kW none, 3 kW

**Cooling capacity** 35 kW at 90°C **Pump capacity** motor 0,75 kW

Pressure mode max. 4,5 bar / max. 75 l/min.

Vacuum mode vacuum max. 8 mH<sub>2</sub>O (water column)

Content of unit min. 5 litres / max. 7 litres

**Connections** 

Medium <sup>1</sup>/<sub>2</sub>" BSP female thread

Cooling water

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

Length: 670 mm x Width: 260 mm x Height: 650 mm, incl. castors

Weight approx. 55 kg empty
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 read  $^{\circ}F$ .

#### **Electronic temperature controller MP-888**

The electronic controller can be operated to read  $^{\circ}$ C or  $^{\circ}$ 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 <sup>1</sup>/<sub>10</sub>° range

-Actual temperature / effective temperature displayed in  $^{1}/_{10}^{\circ}$  range Indication of flow rate in different units, possible are litres per minute with  $^{1}/_{10}$  litres display. Switchable from English gallons 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.



01/2010