

Temperature Control Unit

TT-168 PHE

Special temperature control unit with extremely high cooling capacity.
Suitable for mould temperatures of 20°C - 50°C / 90°C.

TT-168 E/PHE

with 4 bar pump

with 12 or 18 kW

TT-168 H/PHE

with 8 bar pump

heating capacity

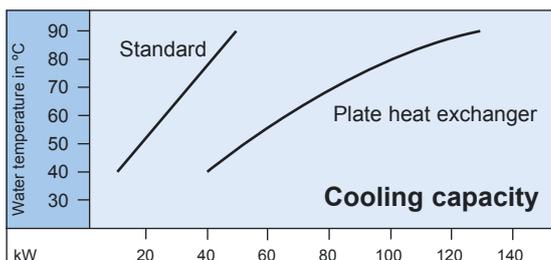
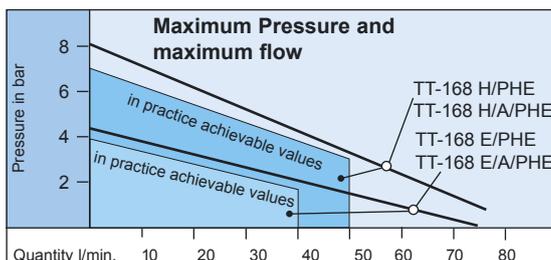
With electronic flow control

This model can be used for all applications where low temperatures are required that cannot be reached with a standard temperature control unit.



Features included

- The unit is equipped with 2 heat exchangers: Standard heat exchanger from 50 up to 90°C, Plate heat exchanger from 20 up to 50°C
- 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. The pressure is displayed by manometer.
- Self-optimizing temperature control unit 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.
- Facility for switching over to temperature control at the mould with connection for external thermocouple.
- 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.
- Time-limited water refill preventing overflowing when working with defective hoses.
- 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.
- 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.
- Castors



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Technical data

There are 4 different models available:

TT-168 E/PHE TT-168 H/PHE TT-168 E/A/PHE TT-168 H/A/PHE

Temperature range

20°C up to 90°C with water

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 (water)

12 kW	12 kW	18 kW	18 kW
Switchable in stages	3 / 9 / 12	3 / 9 / 12	9 / 9 / 18

Cooling capacity

Standard heat exchanger: 50 kW at 90°C
Plate heat exchanger: 130 kW at 90°C

Pump capacity

motor 0,75 kW	1,5 kW	0,75 kW	1,5 kW
Pressure mode	max. 4,5 bar	max. 8,0 bar	max. 4,5 bar
	max. 75 l/min.	max. 75 l/min.	max. 75 l/min.

Vacuum mode

vacuum max. 8 mH₂O

Content of unit

min. 16 litres / max. 20 litres

Connections

Medium

3/4" BSP female thread

Cooling water

1" BSP male thread

Dimensions

Length: 980 x Width: 365 x Height: 750 mm, incl. castors

Weight

approx. 90 kg empty

Colour

silvergrey RAL 7001

The unit is equipped with 2 different heat exchangers that can be switched on if required. The standard heat exchanger is used at high temperatures and the plate heat exchanger can be switched on especially at lower temperatures.

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 °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 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.



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