

### High Temp. Water Heaters

The STM-PW series of high temperature water heaters are used to heat up the mould and maintain this temperature, although they can be used in other similar applications. High temperature water from the mould is cooled by indirect cooling and then sent to the pipe heaters under high pressure for heating to a constant temperature. With our optimised design, water can reach a maximum of 160°C and the OMRON temperature controller can maintain an accuracy of  $\pm 1^\circ\text{C}$ .

#### Features:

- PID multi-stage temperature control system can maintain a mould temperature with accuracy of  $\pm 1^\circ\text{C}$ .
- Multiple safety devices can automatically detect abnormal performance and indicate this via visible alarm.
- Reliable mains isolator to cut power supply in case of emergency.
- German made SPECK pump features high pressure and stable performance.
- Accurate temperature control achieved by indirect cooling and quick heat transfer by means of steady cooling water flow.
- Automatic water filling to quickly reduce water temperature to set-point
- Inner parts made from stainless steel to ensure corrosion-free operation.
- Attractive appearance, easy to access and maintain.
- Pipe heaters are made from stainless steel.

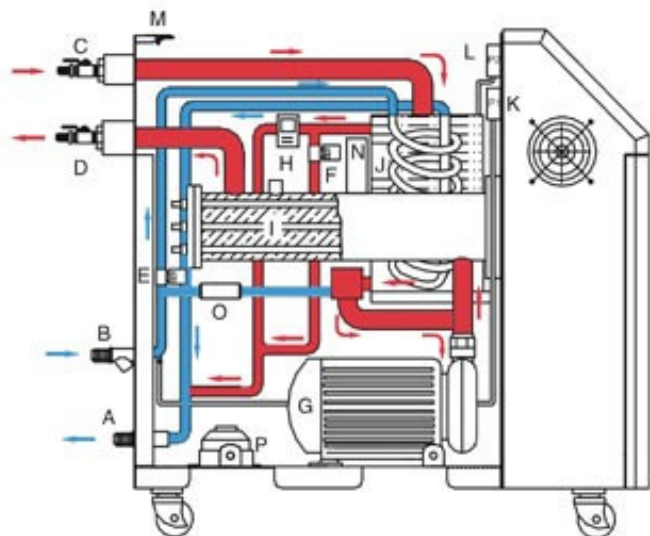


STM-910-PW



STM-607-PW

## Illustration of working principle (indirect cooling)



High temperature water from the mould flows through the pipes in the cooling tank, and is then sent by the pump (G) to be heated by the pipe heater (I), and then onto the mould. When in need of water filling, the machine will activate solenoid valve 2 (F) to let water in. It will be sent by the high pressure pump to the heating tank with increased pressure, where water is heated to the desired temperature in the high pressure chamber before being sent to the mould.

If the water overheats, this will activate the solenoid valve (E) that allows cold water to flow into the cooler (J) from the inlet (A) to reduce the water temperature. If the water reaches the upper limits of the temperature sensor, the machine will start to alarm.

A. Cooling water inlet    C. From mould    E. Solenoid valve 1    G. Pump    I. Pipe heater    K. Pressure switch 1    M. Pressure meter    O. One-way valve  
 B. Cooling water outlet    D. To mould    F. Solenoid valve 2    H. Safety switch    J. Cooler    L. Pressure switch 2    N. Electrical floating ball    P. Overheat protector(EGO)

## Applications

Mainly used for heating up and maintaining a constant mould temperature, and in other fields that require a constant flow of hot water.

## Specifications

model	Max. temp	Heater (kw)	Pump (kw) (50/60Hz)	Max. pump flow (L/min)	Max. pump pressure (bar)	Heating chamber number	Heating / cooling tank (L)	Cooling method	Mould coupling (inch)	Dimensions (mm) (H×W×D)	Weight (kg)
STM-607-PW	160°C	6	0.5 / 0.6	30	5.5	1	3.8 / 1.6	Indirect	3/8" (2×2)	740x320x760	94
STM-910-PW		9	0.75 / 0.9	45	6.0	1	3.8 / 1.6			740x320x760	101
STM-1220-PW		12	1.5 / 1.8	90	5.5	1	3.8 / 2.0		1" (1×2)	790x340x810	102

Note: 1) To ensure stable water temperature. Cooling water pressure should not be less than 2kg/cm<sup>2</sup>, but also no more than 5 kg/cm<sup>2</sup>.  
 2) Automatic drain facility can be added on the machine as optional feature. (Model denotes "R")  
 3) Power supply: 3Φ, 230/400/460/575V, 50/60HZ.

## Model selection

Mould clamping force (T)	Moulding capacity (kg/hr)	Pump flow (L/min)
Below 100	Below 12	30
100 ~ 200	12 ~ 25	

Mould clamping force (T)	Moulding capacity (kg/hr)	Pump flow (L/min)
200 ~ 300	25 ~ 40	40
300 ~ 650	40 ~ 80	60

We reserve the right to change specifications without prior notice.



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