



High Temp. High Pressure Water Heater

STM-940-HPW

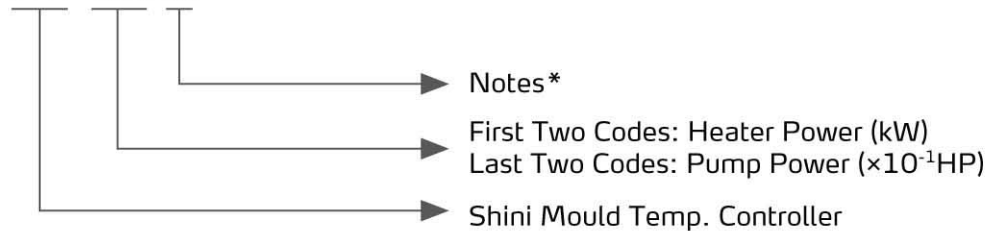


Refer carefully to this manual before operation.

STM-HPW Series

■ Coding Principle

STM - xxxx - xx



Notes*:

HPW=Water Medium with High Temp.and High Pressure

CE= CE Conformity

■ Features

Standard configuration

- P.I.D. multi-stage temperature control system can maintain an mould temperature with an accuracy of $\pm 0.5^{\circ}\text{C}$.
- Adopts high efficiency water cycle pump, with which precise moulds and mould loop with minor diameter can achieve precise temperature control and high efficient heat exchange. Pump inside adopts stainless steel to avoid explosion.
- Multiple safety devices including power reverse phase protection, pump overload protection, overheat protection and low level protection that can automatically detect abnormal performance and indicate this via visible alarm.
- For standard STM-HPW, the heating temperature can reach 180°C .
- Equipped with high pressure protection, safety pressure relieving, automatic water supplying and air exhausting.
- STM-HPW adopts indirect cooling, which makes temperature control more precise. The low viscosity of water realizes fast heat exchange.
- Adopt magnetic pump with no leakage.

Accessory option

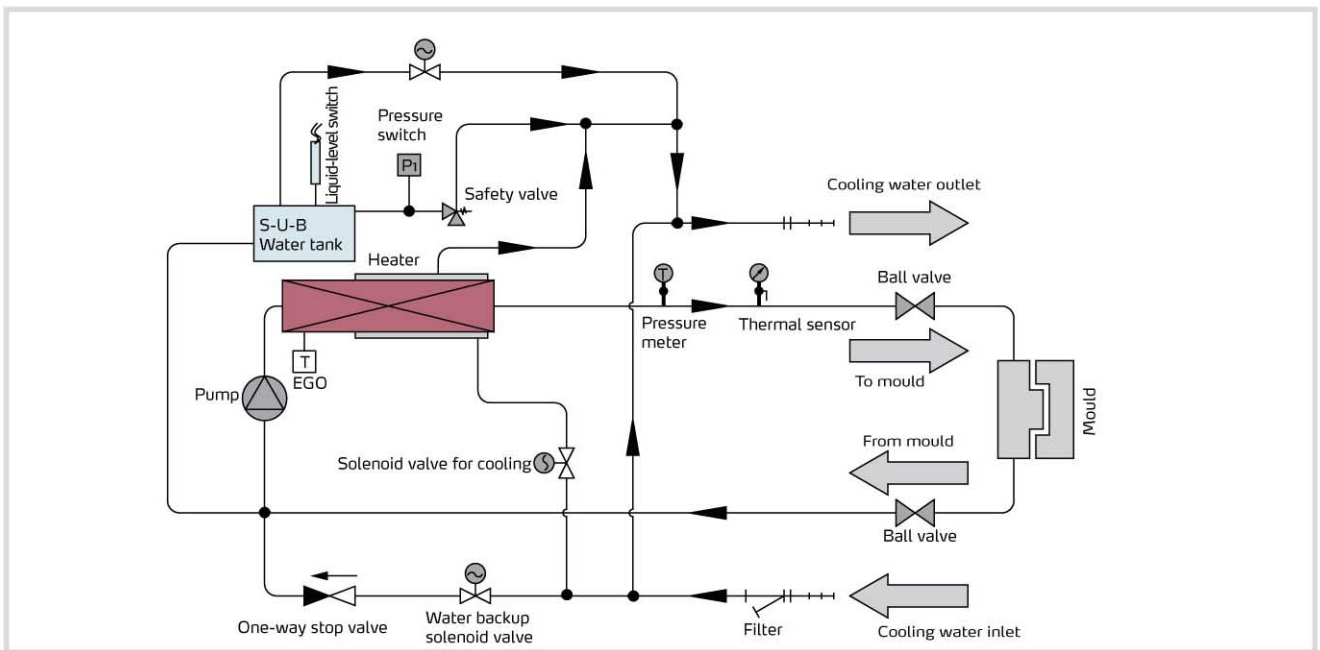
- Water manifolds and Teflon hose are optional.
- RS485 communication function is optional.

■ Application

STM-HPW series water heaters have both standard and high temperature models, which are used to heat up the mould and maintain temperature, they can be used in imilar applications as well. High temperature water from the mould is returned to the cooling tank and cooled by either indirect cooling (For high temperature and high temperature plus pressure models) or direct cooling (For standard models). It is then pressurised by the high-pressure pump, sent to the heating tank and finally to the mould with a constant temperature. The OMRON temperature controller can ensure an accuracy of $\pm 0.5^{\circ}\text{C}$.

Working Principle

The high temperature water from the mould returns to pump and then flows to heaters after being pressurized. Then it will be heated and flow to the mould again. The process circulates like this. In this process, machine will stop and give an alarm when liquid level switch detects that the liquid level has dropped down to the set point. However, if the temperature of that water is too high, the system will activate the solenoid valve for cooling to let cooling water come into the system and cools down the water, thus constant temperature can be maintained. System will activate its over temperature alarm and stop working when that water temperature is still higher than EGO set point. Safety valve will be opened for pressure release when system pressure has reached set point of pressure switch. If the system pressure keeps beyond the set point of the safety valve, machine will sounds alarm and halts.



System Flow for STM-HPW (Indirect Cooling)

Specifications

Model	Max. Temp.	Heater (kw)	Pump (kw) (50/60Hz)	Max. pump Flow (L/min) (50/60Hz)	Max. pump Pressure (bar) (50/60Hz)	Heating Chamber Number	Tank (L)		Cooling Method	Mould Coupling* (inch)	Inlet/Outlet (inch)	Dimensions (mm) (H x W x D)	Weight (kg)
							Heating	Cooling					
STM-607-HPW	180°C	6	0.55/0.63	25.5/28	12/15.8	1	3.4	1	Indirect	3/8 (2x2)	3/4 / 3/4	750x320x770	80
STM-913-HPW		9	1.0/1.2	50/60	12/15.8	1	3.4	1		3/8 (2x2)	3/4 / 3/4	750x320x770	85
STM-1213-HPW		12	1.0/1.2	50/60	12/15.8	1	3.4	1		1 (1x2)	3/4 / 3/4	750x320x810	95
STM-940-HPW		9	2.8	150	12	12	1	3.4		4.6	1 (1x2)	1 / 1	960x465x900

Notes: 1) "HPW" stands for water medium with high temp. and high pressure.
 "*" stands for options.

- 2) To ensure stable water temperature, cooling water pressure should not be less than 2kgf/cm², but also no more than 5kgf/cm².
- 3) Pump testing standard: Power of 50/60Hz, purified water at 20°C. (There is ±10% tolerance for either max. flowrate or max. pressure).
- 4) Power supply: 3Φ, 230/400/460/575VAC, 50/60Hz.

We reserve the right to change specifications without prior notice.

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