



## High Temp. Water Heater

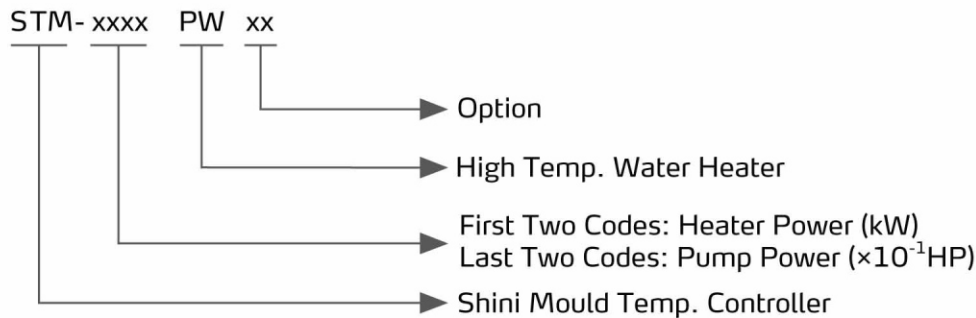
STM-607PW



Refer carefully to this manual before operation.

# STM-PW Series

## ■ Coding Principle



## ■ Features

- P.I.D. multi-stage temperature control system can maintain a mould temperature with an accuracy of  $\pm 0.5^{\circ}\text{C}/0.9^{\circ}\text{F}$ .
- Adopts Magnetic 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 include 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-PW, the heating temperature can reach  $180^{\circ}\text{C}/356^{\circ}\text{F}$ .
- Equipped with high pressure protection, safety pressure relieving, automatic water supplying and air exhausting.
- STM-PW adopts indirect cooling, which makes temperature control more precise. The low viscosity of water realizes fast heat exchange.
- Adopt magnetic pump with no leakage.
- RS485 communication function is standard.
- Equipped with water level probe and high-pressure plunger pump that could accurately detect the water level and refill the water for high-pressure system to avoid pipe dry burning.
- Standard equipped with the buzzer.

## ■ Options

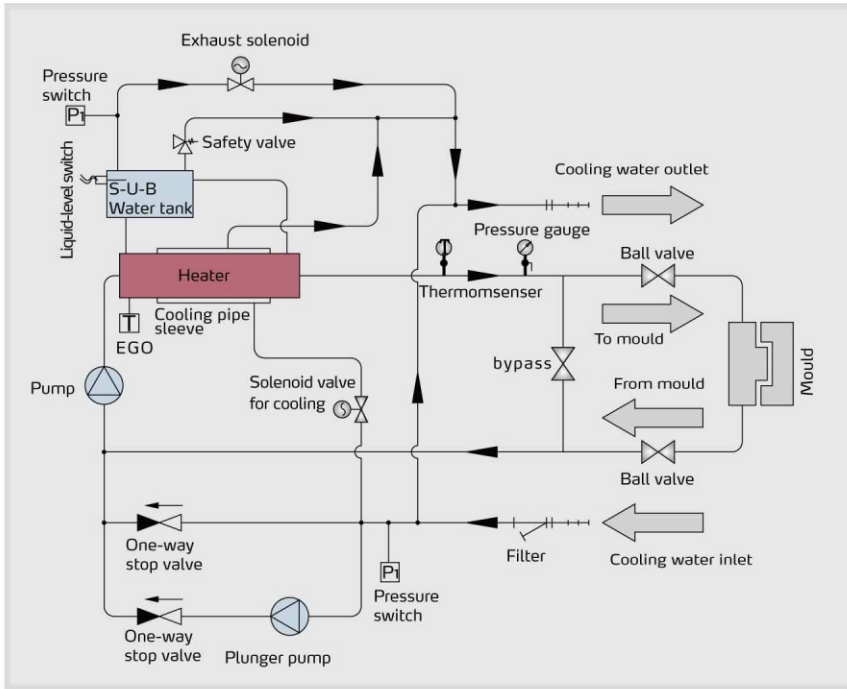
- Water manifolds and Teflon hose are optional.
- It could option with magnetic filter to prolong service life of magnetic pump.  
Add "MF" at the end of the model code.

## ■ Application

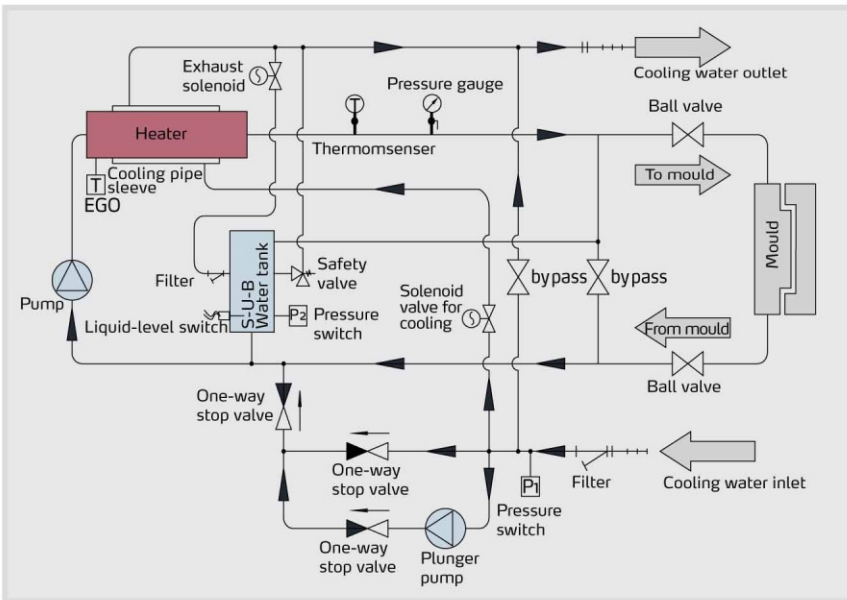
STM-PW series water heaters have both standard and high temperature models, which are used to heat up the mould and maintain temperature, they can be used in similar applications as well. High temperature water from the mould is returned to the cooling tank and cooled by either indirect cooling (For 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.

# STM-PW Series

## Working Principle



STM-607&1220PW System Flow Chart



STM-2440PW System Flow Chart

High-temp. water from the mould returns to pump inlet through the pipeline and is conveyed to the heater by pump pressurizing, then it is sent to the mould after heating by pipe heater, and so on. During the process, if the level sensor detects the water level drops to the set value, machine will start plunger pump to refill for 30 secs., and it will halt with alarm if the low level is still low afterward. If the water temperature is too high, the system will start the cooling solenoid valve. Cooling water will get into the double-sleeve pipe on heating tank to cool down the high-temp. water, which achieves the constant temperature. If the water temperature is still higher than the EGO set value, the system will start high-temp. alarm and halt; When system pressure climbs to the safety-valve set value, the safety valve will depressurize the system; When system pressure is over the high-pressure switch set value, the machine will halt and alarm.



## ■ Specifications

Model		STM-607PW	STM-1220PW	STM-2440PW
Max.Temp.		180 <sup>0</sup> C/356 <sup>0</sup> F		
Pipe Heater(kW)		6	12	24
Pump Power(kW) (50/60Hz)		0.55/0.63	1.0/1.2	2.8/3.36
Max. pump Flow (50/60Hz)	L/min	25.5/28	50/60	100/120
	gal/min	6.7/7.4	13.2/15.8	26.4/31.6
Max. pump Pressure(bar)(50/60Hz)		4.8/6.3	5.8/7.6	8/10.5
Heating Tank Number		1		2
Heating Tank Capacity	L	3.4		6.2
	gal	0.9		1.6
Cooling Tank Capacity	L	1		1.5
	gal	0.26		0.39
CoolingMethod		Indirect		
Inlet/Outlet (inch)		3/4   3/4	3/4   3/4	1/1
Dimensions (H×W×D)	mm	750×320×770	750×320×810	950×450×1050
	inch	29.3×12.5×29.3	29.3×12.5×31.6	37.4×17.7×41.3
Weight	kg	80	95	140
	lb	176	209	309

- Notes: 1) "PW" stands for water medium with high temp.  
 2) To ensure stable water temperature, cooling water pressure should not be less than 2kgf/cm<sup>2</sup>, but also no more than 5kgf/cm<sup>2</sup>.  
 3) Pump testing standard: Power of 50/60Hz, purified water at 20°C/68°F.  
 (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.

## Shini Group

Addr: No. 23, Minhe St., Shulin Dist.,  
New Taipei, Taiwan

Tel: +886 2 2680 9119

Fax: +886 2 2680 9229

Email: [shini@shini.com](mailto:shini@shini.com)

### Factories:

- Taiwan
- Dongguan
- Pinghu
- Ningbo
- Chongqing
- Pune

2018-03-05-04 Copyrights Reserved.

[www.shini.com](http://www.shini.com)