



## High-Temp. Water Heater

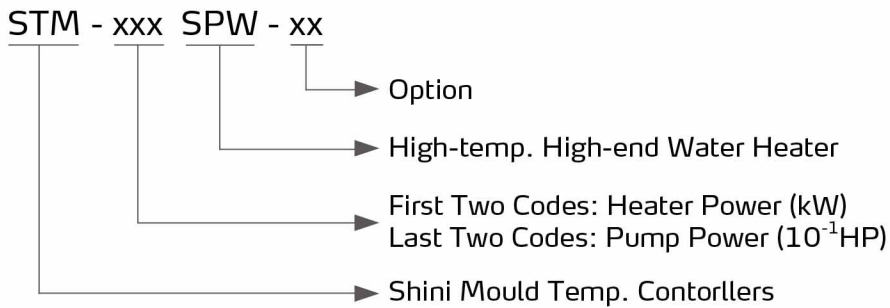
STM-1220SPW



Refer carefully to this manual before operation.

# STM-SPW Series

## ■ Coding Principle



## ■ Features

- Max. working temperature is 230°C
- PT100 temperature sensor
- SSR solid-state relay heating control, reaching control accuracy of ±0.5°C
- Adopt 7 "high-definition touch screen, clear picture, easy operation
- With the full digital P.I.D subsection temperature control system, the stable die temperature can be maintained under any operation condition.
- Adopt non-contact heaters to reduce the water scale in the heater to improve the machine's service life.
- The system water and cooling water has separate inlets, and the system uses purified water to reduce abnormalities such as pipe scaling and blockage, and parts corrosion and stuck.
- Seamless stainless steel and copper pipes are used to make the pipe loop, which has stronger resistance to high temperature and corrosion.
- Equipped with electronic flow and pressure display
- Equipped high-pressure plunger pump, it can automatically replenish water under high temperature without shutdown in during long-term operation.
- Magnetic drive pump made of stainless steel , no shaft seal structure, which can withstand high temperature, high pressure and long-term use without leakage.
- Multiple safety devices such as power reverse protection, pump overload protection, overheat protection and low level protection.
- RS485 interface configuration that can achieve centralized monitoring with host computer.

## ■ Options

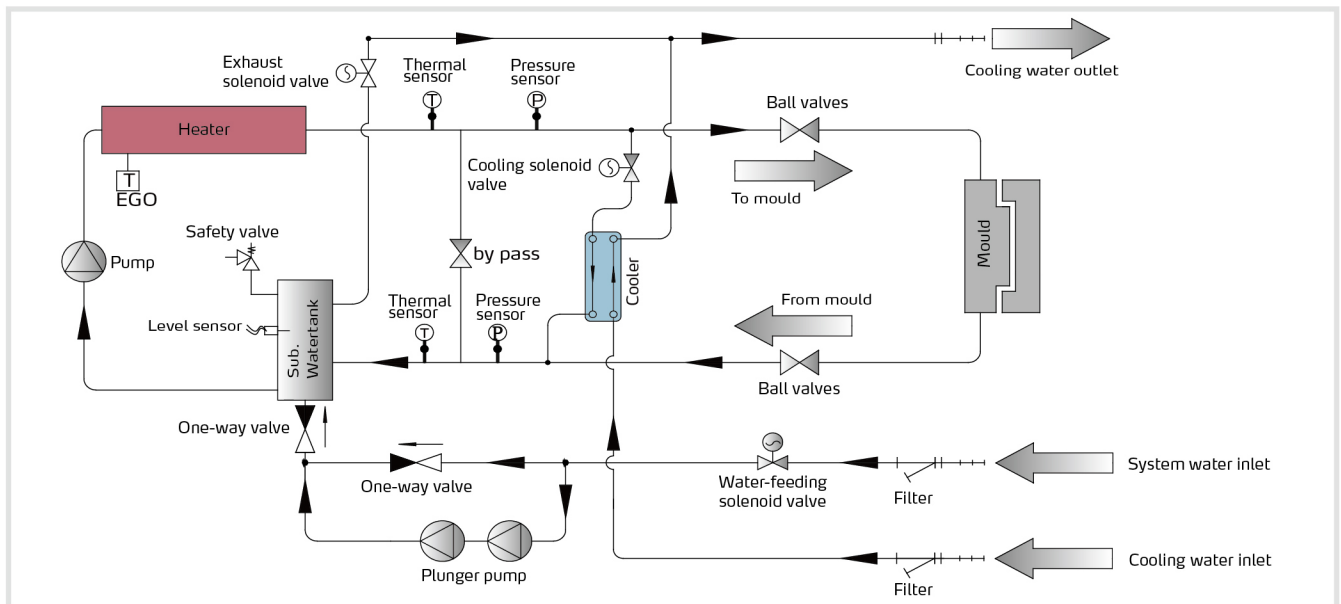
- For models optional with mould temperature displayer, add "TS" at the end of the model code.
- For models optional OPC UA configuration, add "OPC" at the end of the model code.
- Optional air-blow function for water drainage. Add "A" to the model code.

## Application

STM-SPW high-end high-temp. water heater is mainly used to heat up the mould and maintain constant temperature. Besides, when used in other fields with similar demands, compared with the standard STM-PW, this series of models are applicable to PT100 thermoelectric resistance and overall SSR temperature control, which has more stable temperature accuracy control. Equipped with the electronic flow and pressure displayer, it's easy to monitor the real-time pressure of the conveying flow meter, which can through RS485&OPC UA interface to achieve information intelligent monitoring and management.

## Working Principle

The high temperature water from the mould goes back to the pump inlet through the pipe, and is delivered to the heater after being pressurized by the pump, which is sent to the mould via the pipe heater and so on. In this process, if the level sensor detects that the water level is below the set value, the machine plunger pump starts and stops at interval of 60secs. and the alarm will be activated if the water level is still low after 180secs. If the temperature is too high, the system will start the cooling solenoid valve, and the hot water will enter the cooler to cool the high-temperature water and reduce the water temperature, so as to maintain constant water temperature. If the high temperature water is maintained and reached the system setting value or EGO set value, the system will start the high temperature alarm and stop. When the system pressure exceeds the set value, the machine will automatically release the pressure. If the pressure climbs to set alarm value, the system will give the high-pressure alarm and stop, and the mechanical safety valve will open to release the pressure for safety.



## Specifications

Model	Max. Temp.	Pipe Heater (kW)	Pump Power (kW)	Max. pump Flow (L/min)	Max. pump Pressure (bar)	Heating Tank Number	Heating Tank Capacity	Sub Water Tank Capacity	Cooling Method	Inlet/Outlet (CE PT inner thread) (inch)	Dimensions (mm) (H × W × D)	Weight (kg)
STM-1220SPW	230°C	12	1.6	70	6.0	1	0.3	1.4	Indirect	3/4 / 3/4	732×357×1023	100

- 1) "SPW" stands for optimal high temp. water chiller
- 2) As to ensure system stability, the circulating water is the purified water, and the pressure is within 2-5 bar.
- 3) To ensure constant heating temperature, the backpressure of cooling input/output water is no less than 0.5bar.
- 4) Pump testing standard: Power of 50Hz, purified water at 20°C.  
(There is ±10% tolerance for either max. flowrate or max. pressure).
- 5) Power supply: 3Φ, 400VAC, 50HZ.

We reserve the right to change specifications without prior notice.

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