“Large Flow”High Temp. Water Heater

STM-4875PWF

Refer carefully to this manual before operation.

STM-PWF Series

Coding Principle

STM - xxxx PWF - xx

- Options
- "Large Flow"High Temp.
- First Two Codes: Heater Power (kW)
  Last Two Codes: Pump Power ($\times 10^{-1}$HP)
- Shini Mould Temp. Controller

Features

- P.I.D controller with 3.2" LCD with a user-friendly interface. The multi-stage controller can maintain stable mould temperature with a precision of +/- 0.5℃/0.9°F.
- Adopt SSR solid-state relay controller.
- Adopt high-efficient water cycle magnetic pump, which can meet the demands of temperature control for precise moulds and mould loop with minor diameter to achieve precise temperature control and high efficient heat exchange.The interior is made of stainless steel to prevent high-pressure 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-PWF, the maximum heating temperature is 180℃/356°F.
- Equipped with high pressure protection, safety pressure relieving, automatic water supplying and air exhausting.
- Adopt plate heat exchanger for direct cooling and accurate temperature control, and the low water viscosity makes quick heat exchange.
- RS485 communication interface that can achieve centralized monitoring online;
- Equipped with water probe and high pressure pump pluger; The water probe can detect the water level accurately. When the system water level is too low, the pump pluger supplies water for the high pressure system to avoid pipe heater dry burnt .
- With standard buzzer.

Control Panel

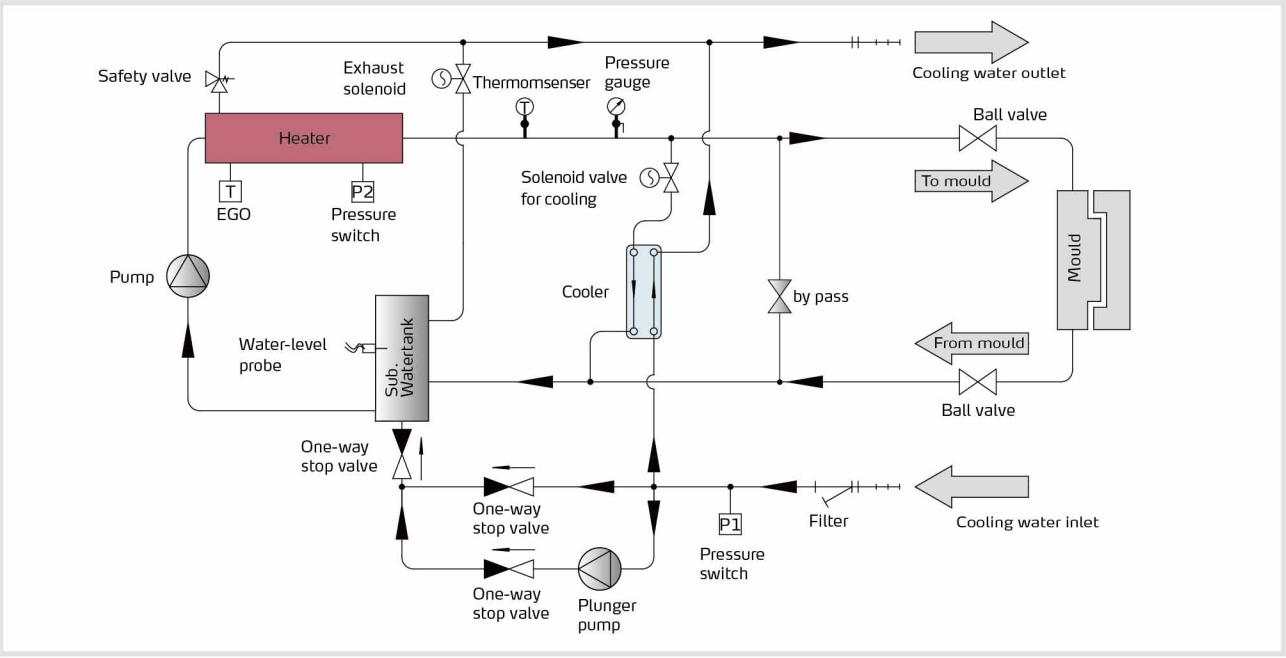
Options

For models optional with return water temperature displayer, add "TS" at the end of the model code.

Application

STM-PWF series high temp. water heaters are mainly used for mould heating and mould temperature maintaining. Besides, it is also applicable to fields with other similar demands. Compared with the STM-W water heater, this series can control higher mould temperature (max. 180℃). It adopts "large flow" magetic pump that largely increases the water flow, which is especially suitable for large flow constant temp. productions and higher technology demands. Besides, there are many options and accessories for this series of machine that can meet different production demands.

Working Principle



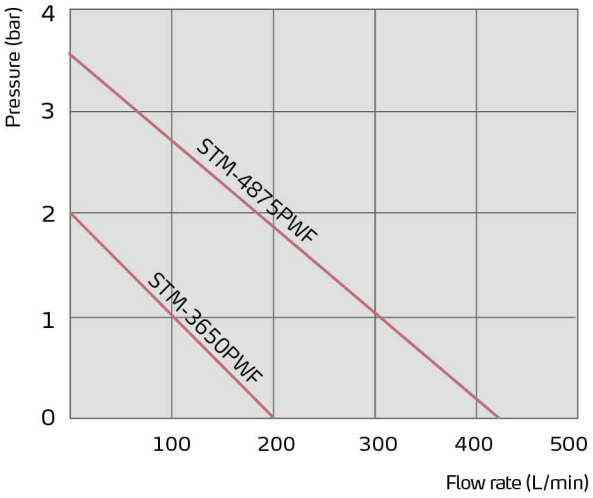
Specifications

Model	Max.Temp	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 (inch)	Dimensions (mm)(H×W×D)	Weight(kg)
STM-3650PWF	180℃	36	4.0	200	2.0	3	9	3	Indirect	1.5/1.5	860×560×1450	210
STM-4875PWF	180℃	48	5.5	269	3.5	4	13.2	3	Indirect	1.5/1.5	860×600×1350	245

Notes：1) To ensure stable water temperature, cooling water pressure should not be less than 2kgf/cm², but also no more than 5kgf/cm².
2) Pump testing standard: Power of 50/60Hz, purified water at 20℃/68℉.
(There is ±10% tolerance for either max. flowrate or max. pressure).
3) Power supply: 3Φ, 230/400/460/575VAC, 50/60Hz.

We reserve the right to change specifications without prior notice.

Pump Performance



Reference formula of Mould Controllers model selection

Heater Power (kW) = mould weight (kg) × mould specific heat (kcal/kg℃) × temperature difference between mould and environment (℃) × safety coefficient / heating duration(hr) / 860

Note: safety coefficient can select a value from 1.3 to 1.5.

Flow Rate (L/min) = heater power (kw) × 860 / [heating medium specific (kcal/kg℃) × heating medium density (kg/L)× inlet/outlet temperature difference (℃)× time (60)]

Note: Heating medium oil specific heat =0.49kcal/kg℃
Heating medium oil density =0.842kg/L

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Factories:

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