



## Dual-purpose Water/Oil Heater

STM-607W/O

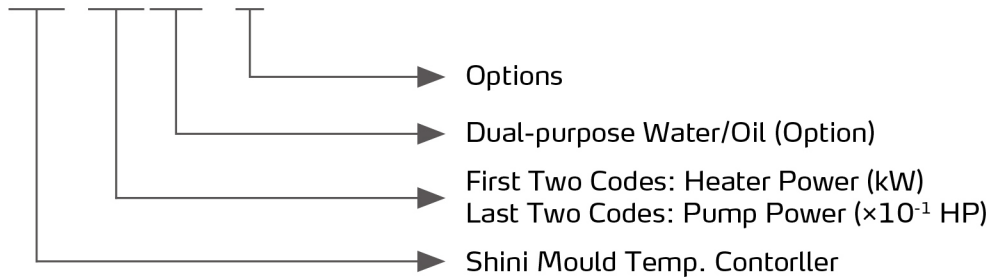


Refer carefully to this manual before operation.

# STM-W/O Series

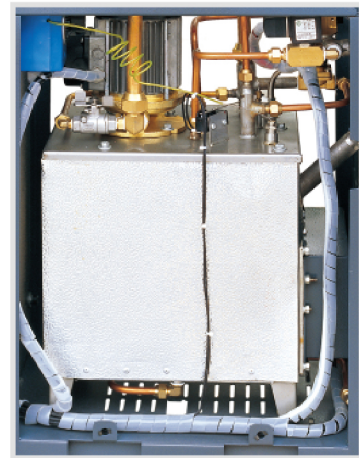
## ■ Coding Principle

STM- xxxx W/O - xx



## ■ Features

- Adopt water or oil as heating medium, the maximum temperature can reach: water 95°C/203°F and oil is 160°C/320°F.
- Controller adopts 3.2" LCD for easy operation.
- 7-day automatic start/stop timer supports the conversion between Chinese and English, and °C and °F.
- P.I.D. multi-stage temperature control system can maintain a mould temperature with an accuracy of  $\pm 0.5^{\circ}\text{C}/0.9^{\circ}\text{F}$ .
- Adopt high efficiency, vertical dual-purpose of water/oil high pressure pump with stable performance and great pressure.
- 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.
- Equipped with pump reversion evacuation, automatic water supplying and negative pressure operation.
- RS485 communication interface achieves centralized monitoring with the host.
- Standard equipped with the buzzer.



Inner Structure



Control Panel

## ■ Options

- Displays of mould temperature and return oil temperature of mould are optional, and add "TS" at end of the model code.

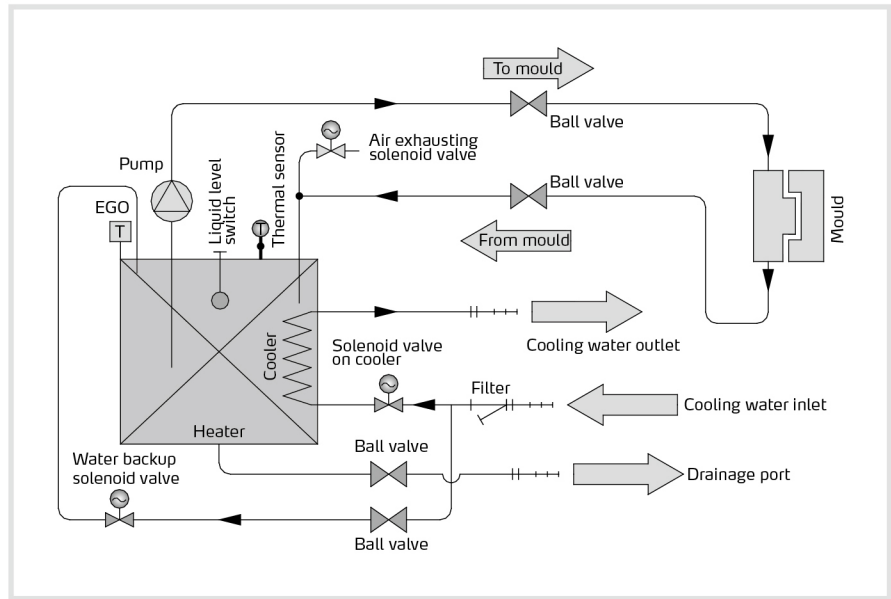
## ■ Application

STM-W/O series dual-purpose heaters are used to heat up the mould and maintain temperature, and also they can be used in other similar applications. This series of machines can use oil or water as heat transfer media according to different production processes, as to adapt to different production conditions. Besides, this series of models have multiple options and accessories to meet different production demands.

# STM-W/O Series

## Working Principle

High temperature water returns to the machine and then be pressured by pump to the heaters. After being heated, water will be forced to mould and continue the circle. In the process, if the temperature is too high, the system will activate the solenoid valve to let cooling water lower the temperature directly till the water temperature is down to the system requirement. If the temperature keep rising and reach the set point of EGO, the system will alarm and stop operation. The system will have low pressure alarm and stop working if cooling water pressure doesn't reach the set point.



System Flow (Indirect Cooling)

## Specifications

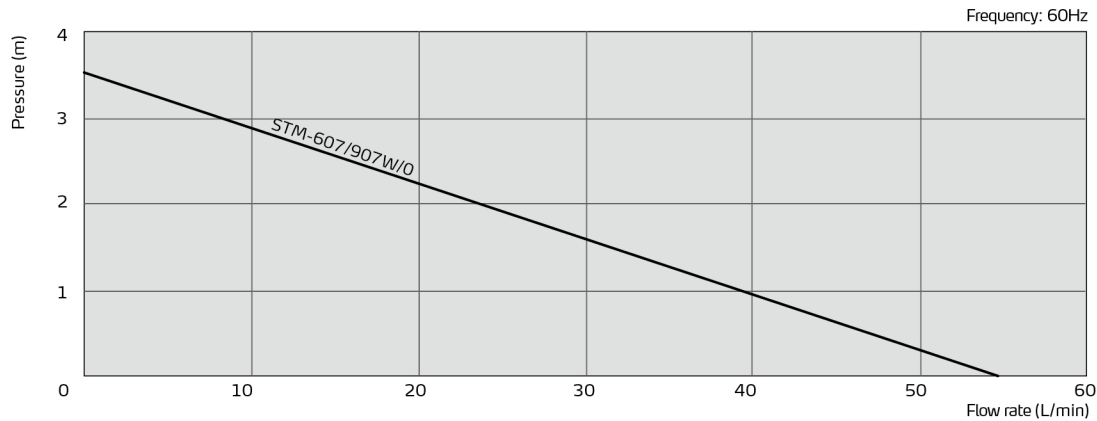
Model		STM-607W/O	STM-907W/O
Max.Temp.		W: 95°C / 203°F O: 160°C / 320°F	
Heater(kW)		6	W: 9 O: 6
Pump Power(kW) (50/60Hz)		0.55/0.55	
Max. pump Flow (50/60Hz)	L/min	55/62.7	
	gal/min	14.5/16.6	
Max. pump Pressure(bar)(50/60Hz)		3.4	
Heating Tank Number		1	
Heating Tank Capacity	L	12	16
	gal	3.2	4.2
CoolingMethod		Indirect	
Mould Coupling* (inch)		3/8 (2×2)	
Inlet/Outlet (inch)		3/4 / 3/4	
Dimensions (H×W×D)	mm	845×325×907	832×353×807
	inch	33×12.7×35.4	32.5×13.8×31.5
Weight	kg	75	84
	lb	165	184.8

Notes: 1) Pump testing conditions: Power of 50 / 60Hz, purified water in 20°C/68°F.(There is ± 10% tolerance for either max. flowrate or max. pressure).

2) Power supply: 3Φ, 230/400/460/575VAC, 50/60 Hz.

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°C) × temperature difference between mould and environment (°C) × safety coefficient / heating duration(h) / 860

Notes: safety coefficient range 1.3~1.5.

Flow Rate (L/min) = heater power (kW) × 860 / [heating medium specific (kcal/kg°C) × heating medium density (kg/L) × in/outlet temperature difference (°C) × time (60Min)]

Notes: Water specific heat =1kcal/kg°C

Heating medium oil specific heat =0.49kcal/kg°C

Water density =1kg/L

Heating medium oil density =0.842kg/L

Time for heating=the time needed to heat from room temperature to set temperature