



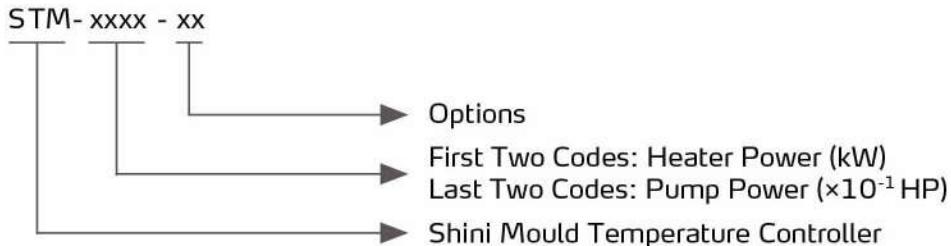
Oil Heater

STM-910



Refer carefully to this manual before operation.

■ Coding Principle



■ Features

- For standard STM, the maximum heating temperature 200°C/392°F, while STM-HT maximum heating temperature is 300°C/572°F.
- 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°C/0.9°F.
- In build weekly timer with °C/°F unit conversion.
- STM in build a high-temperature quality pump. STM-HT with a leakage-free sealless magnetic driven pump.
- In build multiple safety with display and alarm buzzer, such as reverse phase, pump overload, overheat, and low oil level alarm.
- Modbus RTU data communication via RS485.



STM-910-D



STM-2440HT

■ Options

- Displays of mould temperature and return oil temperature of mould are optional, and add "TS" at the end of the model code.
- For models optional with magnetic pump (excluded for STM-3650 and STM-D models), add "M" at the end of the model code.
- It could option with magnetic filter to prolong service life of magnetic pump (only suitable for models with magnetic pump). Add "MF" at the end of the model code.



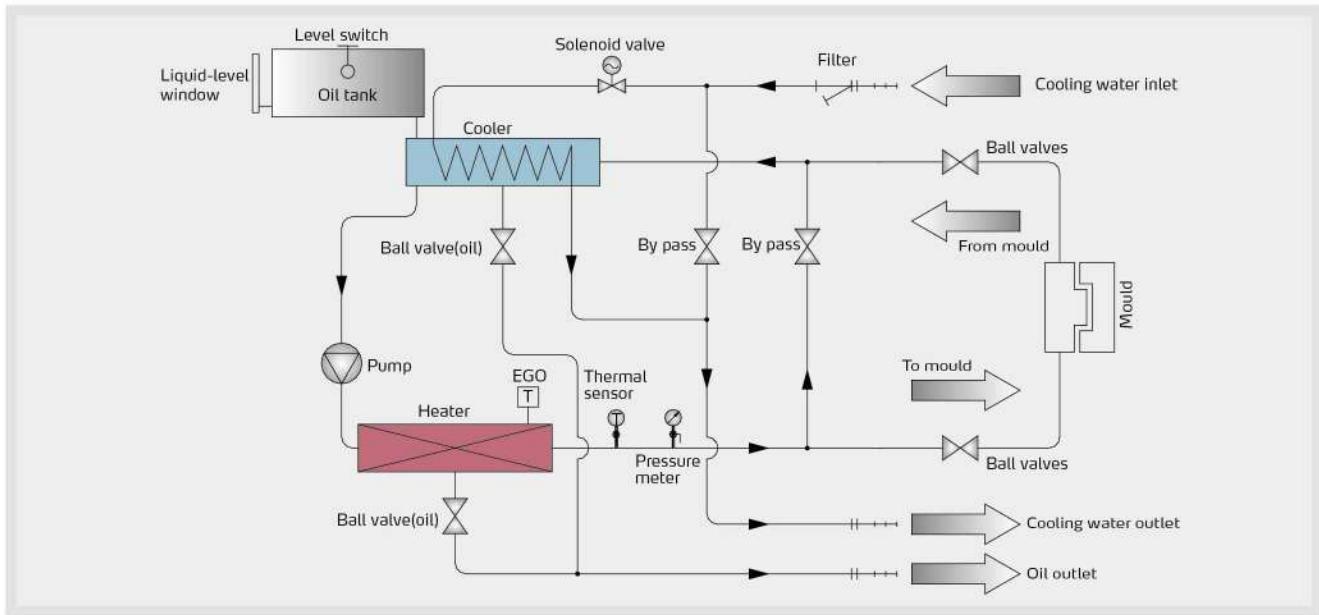
Control Panel

■ Application

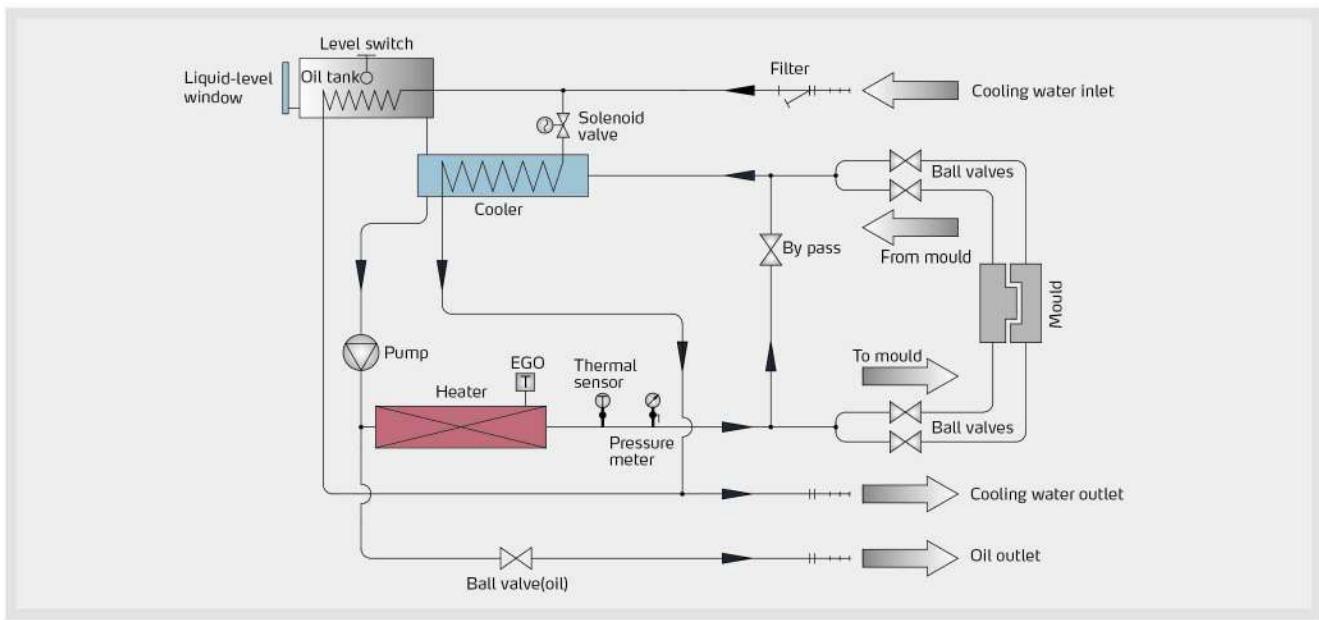
STM series of oil heaters have both the standard and high temperature types, which can heat moulds up to 200°C and 300°C respectively. It's mainly applied to heating up and temperature maintenance of mould, and other fields with the same demands. This series of machines use oil as the medium so that rust can be avoided inside the mould. As oil has small specific heat, its heating and cooling rates are better than water heaters. The oil heaters can be used for moulds with high temperature demands, and multiple options and accessories are available for customers to meet different production requirements.

STM Series

■ Working Principle



System flow for STM



System flow for STM-HT

■ Specifications

Model	STM-607	STM-607D	STM-910	STM-910D	STM-1220	STM-1220D	STM-2440	STM-3650	STM-907HT	STM-1215HT	STM-2440HT	
Max. Temp.	200°C / 392°F										300°C / 572°F	
Pipe Heater (kW)	6	6x2	9	9x2	12	12x2	24	36	9	12	24	
Pump Power (kW) (50/60Hz)	0.55/0.63	2x0.55 2x0.63	0.75/0.92		1.5/1.9	2x1.5 2x1.9	2.8/3.4	4/4	0.5/0.63	1.0/1.1	2.8/3.43	
Max. pump Flow (50/60Hz)	L/min gal/min	27/30 7.1/7.9	2x27 2x30	42/50 11/13.2	2x42 2x50	74/84 19.5/22	2x74 2x84	90/90 23.7/23.7	100/100 26.4/26.4	28/34 7.4/9	58/63 15.3/16.6	100/100 26.4/26.4
Max. pump Pressure (bar) (50/60Hz)	3.8/5	3.8/5	5.0/6.4	5.0/6.4	6.2/7.2	6.2/7.2	8.0/10.2	8.0/8.0	4.8/6.5	5.8/6.8	8/9	
Heating Tank Number	1	2	1	2	1	2	2	3	1	1	2	
Main/Sub. Oil Tank	L gal	6/3.2 1.58/0.85	2x6/2x3.2 2x1.58/ 2x0.85	6/3.2 1.58/0.85	2x6/2x3.2 2x1.58/ 2x0.85	6.8/11.8 1.8/3.1	2x6.8/ 2x11.8 2x1.8/ 2x3.1	11/16 2.9/4.2	14/16 3.7/4.2	6/6 1.58/1.58	6.8/16 1.8/4.2	16/25 4.2/6.6
Cooling Method	Indirect											
Inlet/Outlet (inch)	3/4 / 3/4	3/4 / 3/4	3/4 / 3/4	3/4 / 3/4	1 / 1	1 / 1	1 / 1	1 1/4 / 1 1/4	3/4 / 3/4	1 / 1	1 / 1	
Dimensions (HxWxD)	mm Inch	700x350 28x13.8 x900 x35.4	700x535 28x21 x900 x35.4	700x350 28x13.8 x900 x35.4	700x535 28x21x x35.4	755x320 29.7x12.6 x900 x35.4	795x690 31.4x27.2 x935 x36.8	900x407 35x16 x1009 x39.7	928x407 36.5x16 x1000 x39.4	695x280 27x10 x740 x29	1000x400 31x13 x800 x32	1050x515 39.4x20 x910 x35.8
Weight	kg lb	70 154	120 265	71 157	140 308	90 198	161 355	145 319	155 341	75 165	90 198	190 418

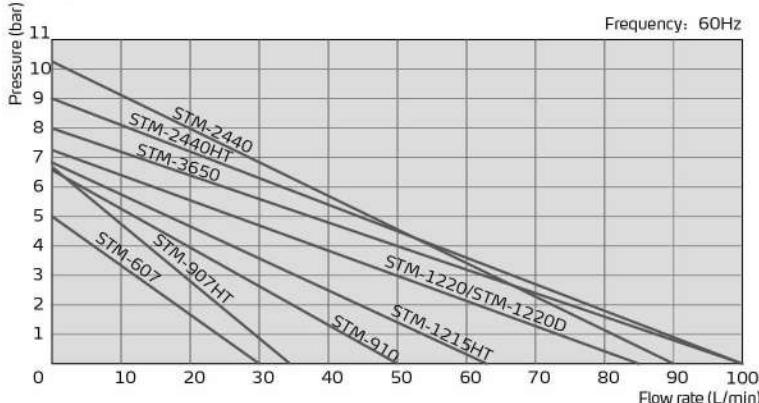
Notes: 1) "D" stands for dual-heating zones. "HT" stands for high temperature model.

2) 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).

3) When machine works continuously, the suggested temperature should not higher than 180°C/356°F. (Including STM-HT)

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

Pump Performance



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

Heating medium oil density = 0.842kg/L

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

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)]

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