



"Budget" Series Heater

STM-607-EB

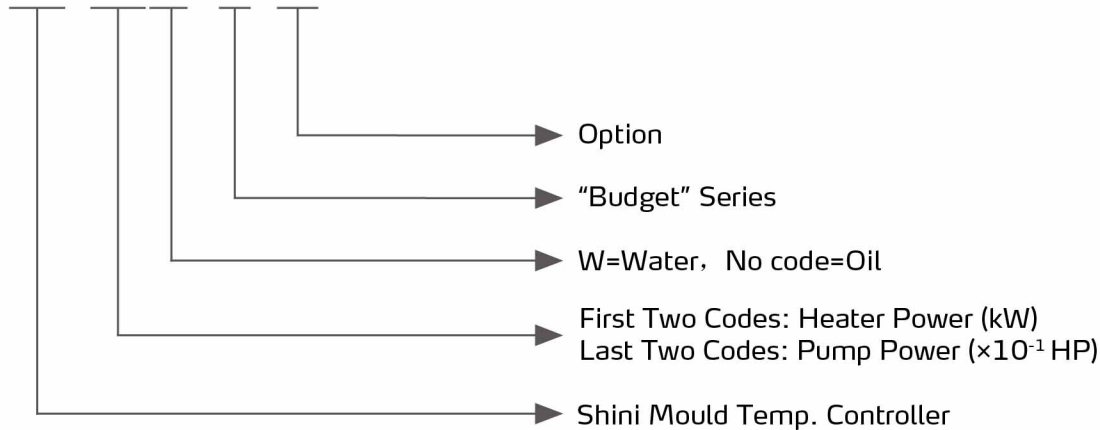


Refer carefully to this manual before operation.

STM-EB Series

■ Coding Principle

STM- xxxx(W) - EB - XX

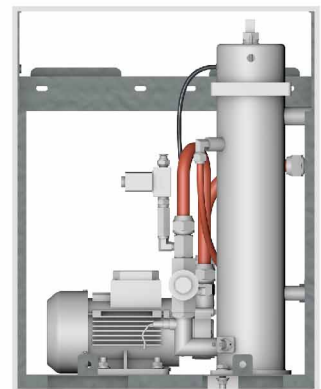


■ Features

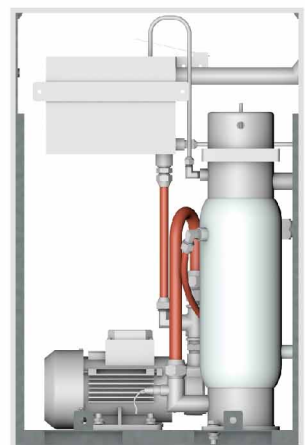
- The maximum operating temperature for water is 120°C/248°F, and oil is 200°C/392°F.
- Full digital P.I.D. temp. control system maintains stable mould temp. with control accuracy up to $\pm 0.5^\circ\text{C}$.
- High-efficiency high temp. pump achieves the high efficiency heat exchange.
- Equipped with power phase reverse protector, pump overload protector and overheat protector and other safety devices, the machine can automatically detect the abnormalities with indicator lights when failure occurs.
- STM-W-EB is equipped with the low level protector and Water-removing via compress air.

■ Application

STM-EB series are applicable for heating up moulds and maintaining temperature, and they also can be used in other similar applications. Firstly, these series adopt different cooling method (indirect cooling for oil heater, and direct cooling for water heater) to cool down the media (oil or water), then the media are conveyed to the moulds after pressurized by pump and heated up by pipe heater to meet heating up and constant water temp. demands.

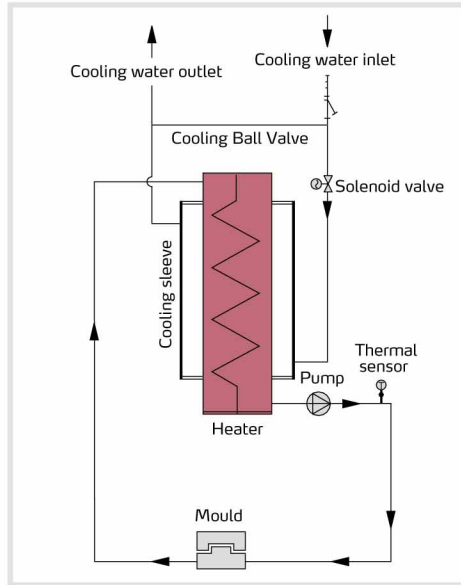


STM-W-EB Inner Structure

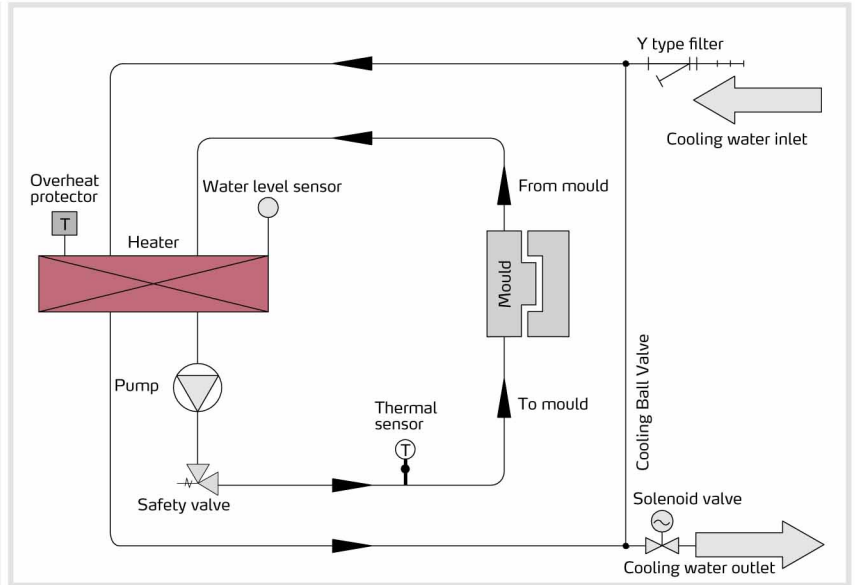


STM-EB Inner Structure

Working Principle



System Flow for STM-EB
(Indirect Cooling)



System Flow for STM-W-EB (Direct Cooling)

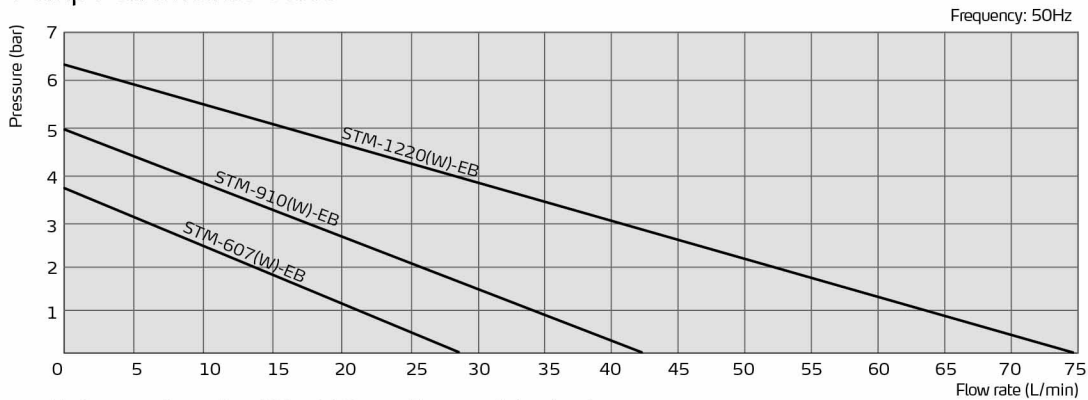
Specifications

| Model | STM- | 607-EB | 607W-EB | 910-EB | 910W-EB | 1220-EB | 1220W-EB |
|-----------------------------|---------|--------------|----------------|--------------|----------------|----------------|----------------|
| Max. Temp. | | 200°C/392 °F | 120°C/248°F | 200°C/392 °F | 120°C/248°F | 200°C/392 °F | 120°C/248°F |
| Pipe Heater (kW) | | | 6 | | 9 | | 12 |
| Pump Power (kW) | | | 0.55 | | 0.75 | | 1.5 |
| Max. pump Flow | L/min | | 27 | | 42 | | 74 |
| | gal/min | | 7.1 | | 11 | | 19.5 |
| Max. pump Pressure (bar) | | | 3.8 | | 5.0 | | 6.2 |
| Heating Tank Quantity | | | | | 1 | | |
| Main/Sub. Oil Tank | L | 6.0 / 3.3 | - | 6.0 / 3.2 | - | 3.3 / 11 | - |
| | gal | 1.6 / 0.9 | - | 1.6 / 0.8 | - | 0.87 / 2.9 | - |
| Water Heating Tank Capacity | L | - | 2.3 | - | 3.0 | - | 3.0 |
| | gal | - | 0.61 | - | 0.8 | - | 0.8 |
| Cooling Method | | Indirect | Direct | Indirect | Direct | Indirect | Direct |
| Inlet/Outlet(inch) | | | | 3/4 / 3/4 | | | 1 / 1 |
| Dimensions (H × W × D) | mm | 740×275×570 | 715×275×570 | 740×275×570 | 715×275×570 | 770×350×830 | 605×350×830 |
| | inch | 29×10.8×22.4 | 28.1×10.8×22.4 | 29×10.8×22.4 | 28.1×10.8×22.4 | 30.3×13.8×32.7 | 23.8×13.8×32.7 |
| Weight | kg | 49 | 38 | 70 | 60 | 85 | 80 |
| | lb | 108 | 83.8 | 154 | 132 | 187 | 176 |

Notes: 1) Pump testing standard: Power of 50/60Hz, purified water at 20°C/68°F. (There is ±10% deviation for both max. flow rate and max. pressure).
2) Power supply: 3Φ, 230/400/460/575VAC, 50/60Hz.

STM-EB Series

Pump Performance Curve



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 / 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 (60)]

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

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