



# Mould Temperature Controller

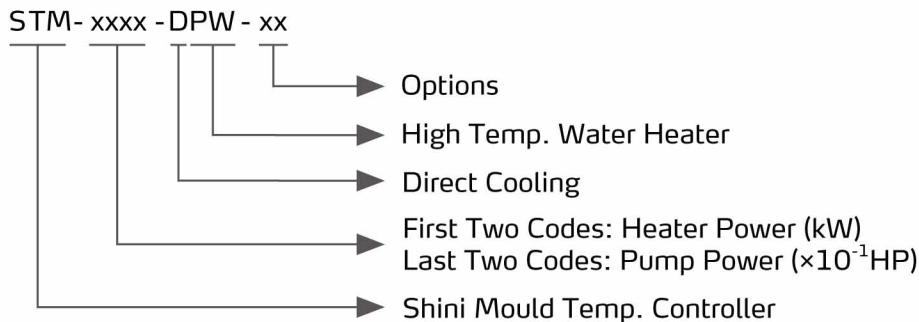
STM-1220DPW



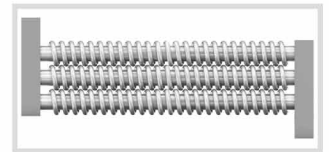
Refer carefully to this manual before operation.

# STM-DPW Series

## ■ Coding Principle



Control Panel



Non-contact heater

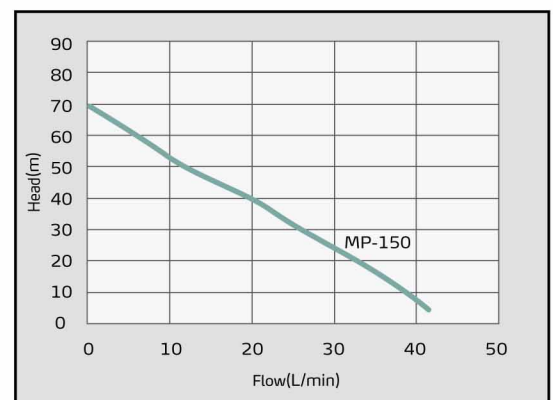
## ■ Features

- Maximum operating temperature up to 180°C.
- 4.3" Touch screen controller with easy-to-use HMI and clean display.
- Adopt the SSR solid-state relay controller.
- Non-contact heaters are used, preventing scale buildup caused by water quality.
- Direct cooling system enables rapid heat exchange.
- Full digital multi-stage PID temperature control system maintains stable mould temperature under all operating conditions, with control accuracy of  $\pm 0.5^{\circ}\text{C}$ .
- Built-in weekly timer, with  $^{\circ}\text{C}/^{\circ}\text{F}$  unit conversion.
- Multiple safety protections, including reverse phase protection, pump overload protection, over-temperature protection, and low water level protection. The controller automatically detects faults and indicates abnormal conditions via alarm indicators.
- Built-in seal-less magnetic pump, reducing the risk of leakage.
- RS485 communication interface enables centralized monitoring and communication with the host machine.
- The flow rate reference display is provided, precision flow sensor is an option.
- Equipped with a water level probe and high-pressure plunger pump to accurately detect water level and automatically replenish water. When the system water level is too low, water is supplied to the high-pressure system to prevent dry heating of the heater.

## ■ Options

- An optional magnetic filter to extend the service life of the magnetic pump, and add "MF" at the end of the model code.
- For models with an optional mould return water temperature display, and add "TS" at the end of the model code.
- Optional air-blow function for water drainage. Add "A" to the model code.
- For models optional with the circuit breaker for leakage protection, add "CB" at the end of the model code.

## ■ Performance Curve



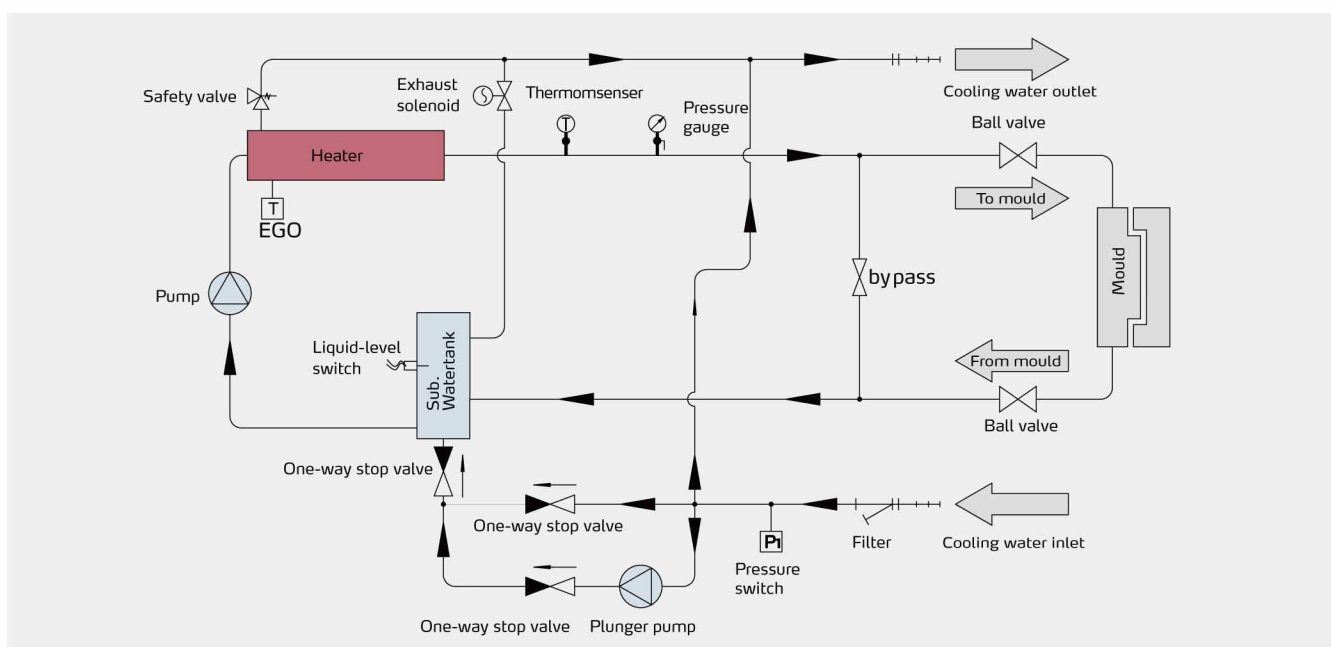
50Hz-cycles/2800r/min-rpm-tr/min

## ■ Application

STM-DPW series high-temperature water mould temperature controllers are mainly used for mould heating and precise temperature control, and are also suitable for other applications with similar requirements.

Compared with the standard water type model STM-W, this series offers a higher maximum operating temperature of up to 180°C, meeting the demands of a wider range of moulding processes. In addition, a variety of optional functions and accessories are available to satisfy different production requirements.

## ■ Working Principle



STM-DPW System flow chart

## ■ Specifications

Model	Max. Temp.	Heater (kW)	Pump Power (kW)	Max. pump Flow(L/min)	Max. pump Pressure (bar)	Heating Tank Number	Capacity (L)		Cooling Method	Inlet/Outlet (inch)	Dimensions(mm) (H × W × D)	Weight (kg)
							Heating Tank	Sub. water tank				
STM-1220DPW	180°C	12	1.5	80	6.05	1	0.3	1.4	Direct	3/4 / 3/4	690×320×1042	72

Notes: 1) To ensure stable water temperature, cooling water pressure should not be less than 2kgf/cm<sup>2</sup>, but also no more than 5kgf/cm<sup>2</sup>.  
 2) Pump testing standard: Power of 50/60Hz, purified water at 20°C. (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.

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