

## Designed to heat molds while maintaining a consistent temperature.

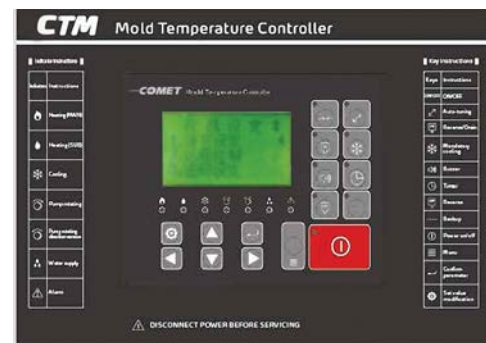
Comet's CTM-PW series high temperature water heaters are used to heat molds and maintain a constant temperature. This series meets wider production demands using higher heating temperatures 356°F (180°C). High temperature water from the mold is returned to the cooling tank and cooled by indirect cooling. The water is then pressurized by the high pressure pump, sent to the heating tank, and then to the mold maintaining a constant temperature. A PID multi-stage temperature controller maintains a mold temperature accuracy reaching 356°F ±0.9°F (180°C ±5°C).

### Standard Features

- Maximum heating temperature of 356°F (180°C).
- PID multi-stage temperature controller, with 3.2" user-friendly LCD maintains stable, precise mold temperatures of ±0.9°F (±0.5°C).
- A high efficiency magnetic pump, without seal, for precise temperature control and efficient heat exchange. The interior of the pump is stainless steel to avoid combustion.
- Multiple safety devices with a display alarm include: reverse phase protection, pump overload protection, overheating protection, and low water level protection.
- Equipped with high pressure protection, safety pressure relief, automatic water supply, and air exhaust.
- Indirect cooling controls the temperature more accurately and achieves higher heat exchange efficiency with the water's low viscosity.
- RS485 communication interface achieves centralized monitoring with the host.
- Equipped with a water level probe and high-pressure pump plunger to accurately detect water levels. When the system level is too low, the pump plunger replenishes the system with water to prevent the pipe from burning.
- Built-in weekly timer with °F/°C conversion.



CTM-607-PW



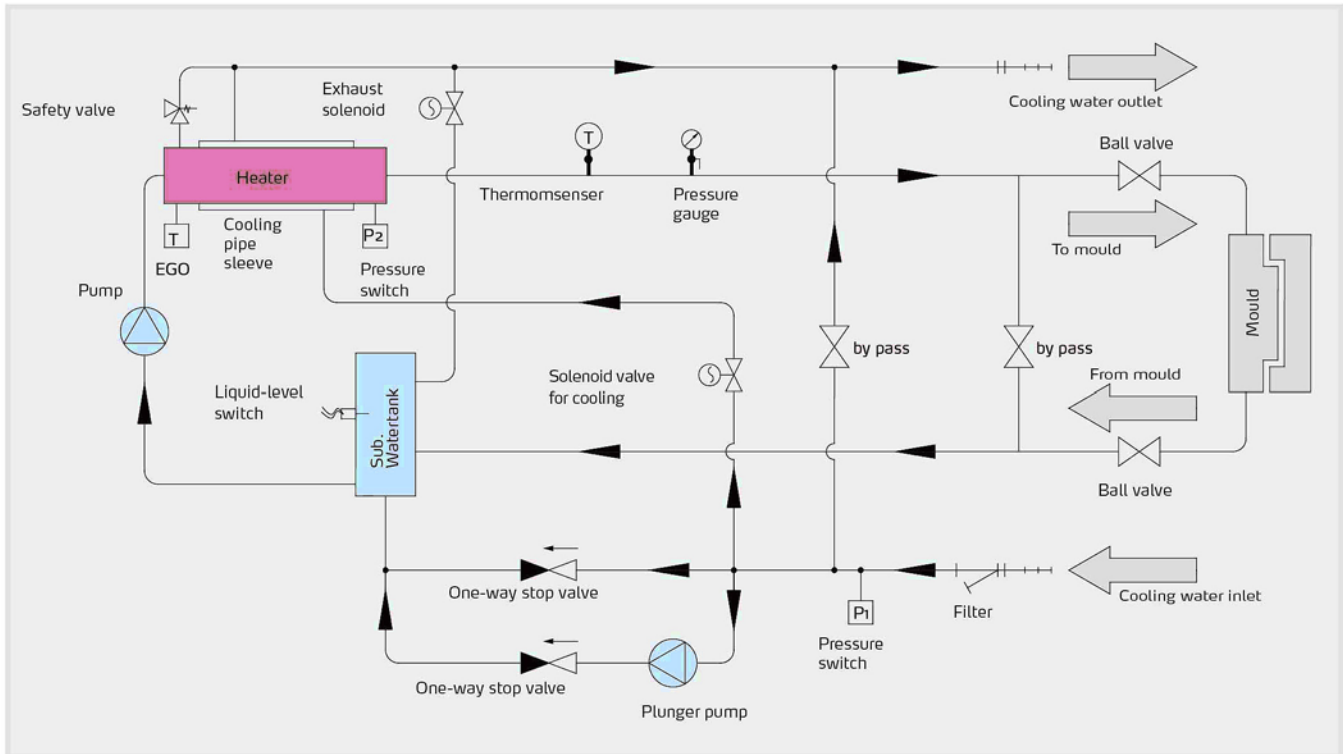
Control Panel

### Accessory Options

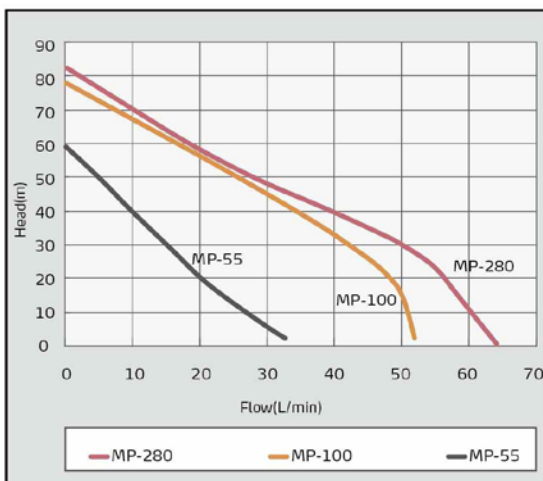
- Magnetic filter to prolong the service life.
- Mold temperature and water mold return temperature display.
- Manual air-blowing function.

## Working Principle

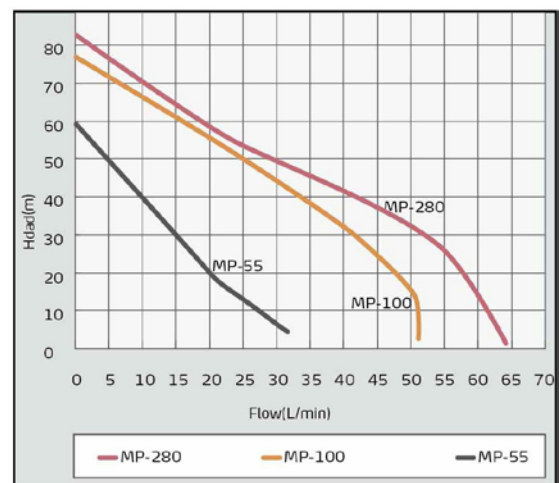
Water moves through a pipe to the CTM-PW where it is heated and pressurized by the heater pump then goes to the mold in a continuous loop. During this process, if the probe detects the water level has fallen below the set value, the machine will start the pump plunger and refill the water for 30 seconds. It will shut down and alarm if the water level is still too low. If the water temperature becomes too high, the system will activate the solenoid valve to enable cooling water to lower the temperature until it reaches the system requirement. If the temperature continues to increase and reaches the setpoint of EGO, the system sounds an audible high pressure alarm and stops operation. If the system pressure becomes too high (reaching the set value of the high pressure switch), an alarm sounds and the machine stops operation. If the system's pressure is higher than the set value of the high-voltage switch, the machine will automatically release the pressure. If the pressure continues to rise, the mechanical safety valve opens to release the system's pressure.



## Performance Curve



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



60Hz Cycles / 3400r/min-rpm-tr/min

## Specifications

Model	CTM-607PW	CTM-607PW-D	CTM-1220PW	CTM-1220PW-D	CTM-2440PW	
<b>Max. Temp.</b>	180°C / 356°F					
<b>Heater (kW)</b>	6	6 x 2	12	12 x 2	24	
<b>Pump Power (kW, 50/60 Hz)</b>	0.6	0.6 x 2	1.05	1.05 x 2	2.9	
<b>Max. Pump Flow (50/60 Hz)</b>	L/min	25.5 / 28	25.5 / 28	50 / 60	50 / 60	100 / 120
	Gal/min	6.7 / 7.4	6.7 / 7.4	13.2 / 15.8	13.2 / 15.8	26.4 / 31.7
<b>Max. Pump Pressure (bar) (50/60 Hz)</b>	4.8 / 6.3	4.8 / 6.3	5.8 / 7.6	5.8 / 7.6	8 / 10.5	
<b>Heating Tank Number</b>	1	2	1	2	2	
<b>Heating Tank Capacity</b>	L	3.4	3.2 x 2	3.4	3.2 x 2	6.2
	Gal	0.9	0.85 x 2	0.9	0.85 x 2	1.64
<b>Cooling Tank Capacity</b>	L	1.4	1.4 x 2	1.4	1.4 x 2	1.8
	Gal	0.37	0.37 x 2	0.37	0.37 x 2	0.48
<b>Cooling Method</b>	Indirect					
<b>Inlet/Outlet (inch)</b>	3/4 / 3/4	3/4 / 3/4	3/4 / 3/4	3/4 / 3/4	1 / 1	
<b>Dimensions</b>						
<b>Height</b>	mm	690	750	690	750	950
	inch	27	29.5	27	29.5	37
<b>Width</b>	mm	320	620	320	620	450
	inch	12.5	24	12.5	24	18
<b>Depth</b>	mm	910	990	990	990	1050
	inch	36	39	39	39	41
<b>Weight</b>	kg	80	185	90	190	140
	lb	176	408	198	419	309

Notes: 1. "PW" stands for water medium with high temp.

We reserve the right to change specifications without prior notice.

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