

Value Packaged Traditional Functionality

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COMING
SOON

The Thermolator® TW-V Series temperature controller is designed to maintain the process temperatures by circulating cooling tower or chiller water. Internal heaters provide rapid pre-heating of molds and dies.

All models offer incoloy heaters; silicon carbide pump seals; pressure gauges; easy-to-use microprocessor controls. Process line purge is available as an option.



TW-V Thermolator®

Value Priced; Compounded Energy Savings

Conair's TW-V Series liquid temperature controllers are single-zone, direct cooling models. Pump sizes of 3/4 Hp {0.56 kW}, or 2.0 Hp {1.49 kW} are standard. Energy-conscious 12 kW heaters are used on all units. Process temperatures to 250°F {121°C} are standard.

The TW-V Series Thermolators® were designed for processors seeking the basics in temperature control units – at a good value, and don't require the additional features and options available in the TW-S or TW-P Series.

For indirect cooling, additional features, and/or multi-zone models, consider Conair's TW-S or TW-P Series, each with their own specification sheets. No matter what your application, Conair has a Thermolator model that fits perfectly.

▶ Clear, accurate, easy to use

Microprocessor controls with adjustable tuning parameters offer uniform temperature control, regardless of external loading. This value control still offers pump running hours count, temperature deviation alarm and warnings, and adjustable alarm delay time.

▶ Auto-relief option- no pressure relief puddles

This auto-relief feature eliminates those puddles of water you sometimes find on the plant floor around your TCU due to the pressure relief valve opening. Pressure build-up can be caused by high incoming water pressure and thermal expansion due to the TCU warm-up process to reach the desired setpoint. This combination can cause the pressure relief valve to open and relieve pressure. The auto-relief feature on a Thermolator uses the cooling valve of the Thermolator to relieve this built-up pressure - eliminating those water puddles.

▶ Incoloy heaters

Standard on all models, long-life incoloy heaters resist damage from high temperature and chemicals.

▶ "Casters up" warranty

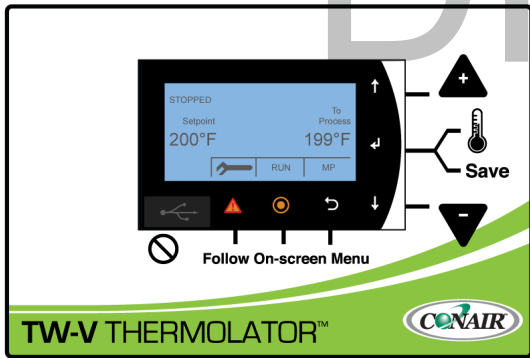
Three full years on all Thermolator TW Series models.



WATER TEMPERATURE CONTROLLER

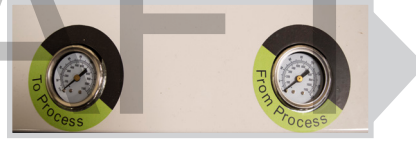
Control

The TW-V Control



Created specifically for the value-minded, the TW-V offers simple operation, without many of the options and features available in the TW-S and TW-P models. An easy-to-use LCD control with multiple illuminating indicator lights, the TW-V Control may be all that is required for applications requiring basic everyday “turn it on, turn it off” Thermolator operation.

Features



High efficiency pumps

3/4 Hp {0.56 kW} or 2 Hp {1.49 kW} pumps available. Industry standard cast iron pump impellers and silicon carbide pump seals on all models.

Built-in pressure gauges are standard for all Conair Thermolators with the TW-V Control.

Built-in sediment trap settles contaminants away from the pump seals.

Incoloy heaters minimize chemical and high temperature damage.

Options

Compressed Air Purge Valve

Quickly evacuates fluid from the process circuit, allowing for faster, cleaner disconnection of the TCU from molds and hoses.

Stacking Rack

Save floor space by stacking Thermolators two-high. Note: The stacking rack can only be used with single-zone models.

Use the charts below to compare Thermolator control options and choose the one perfect for your application.

Control features on the TW-V Series Thermolators

Model	TW-V
Direct Injection	●
Closed Circuit - Common Source	●
Construction	
Standard Pump Range	3/4 or 2 Hp {0.56 or 1.49 kW}
Standard Heater Range	12 kW
Cast Heater / Pump	●
Incoloy Heaters	●
Silicon Carbide Seals	●
Pressure Gauges	●
250°F Setpoint Range	●
300°F Setpoint Range	●
Controls	
PID Control	●
Setpoint / Actual Display	●
Password Protection	●
Modbus TCP/OPC-UA	●
SPI via RS-485	●
Retransmit Process Temp (4-20mA)	●
Auto Restart Capability	●
Auto Cool Stop	●
Mold Purge	○
Phase Detection Circuit	●
Heat Error for Heater Malfunction	●
Remote Start/Stop	●
Integrated Flowmeter	●
120°F Air Purge Cancel	●
Status / Alarm Lights	
Panel Mounted Status Lights	1 LED
Panel Mounted Alarm Lights	1 LED
Audible Alarm	●
Strobe Light	○

● Standard
○ Optional

● PID Control

○ Purge On/Off button included on control.

Control features on the TW-S and TW-P Series Thermolators

Model	TW-S	TW-P
Direct Injection	●	●
Closed Circuit - Common Source	○	○
Construction		
Standard Pump Range	3/4 to 10 Hp {0.56 to 7.45 kW}	3/4 to 10 Hp {0.56 to 7.45 kW}
Standard Heater Range	0 to 48 kW	0 to 48 kW
Cast Heater / Pump	●	●
Incoloy Heaters	●	●
Silicon Carbide Seals	●	●
Pressure Gauges (if no transducer)	●	●
Pressure Transducer (display on HMI)	○	●
250°F Setpoint Range	●	●
300°F Setpoint Range	○	○
Controls		
PID Control	●	●
Setpoint / Actual Display	●	●
Password Protection	●	●
Modbus TCP/OPC-UA	●	●
SPI via RS-485	○	○
Retransmit Process Temp (4-20mA)	○	○
Auto Restart Capability	●	●
Auto Cool Stop	●	●
Mold Purge	○	○
Phase Detection Circuit	○	●
Heat Error for Heater Malfunction	●	●
Remote Start/Stop	●	●
Integrated Flowmeter	○	○
120°F Air Purge Cancel	●	●
Status / Alarm Lights		
Audible Alarm	●	●
Strobe Light	○	○



Specifications

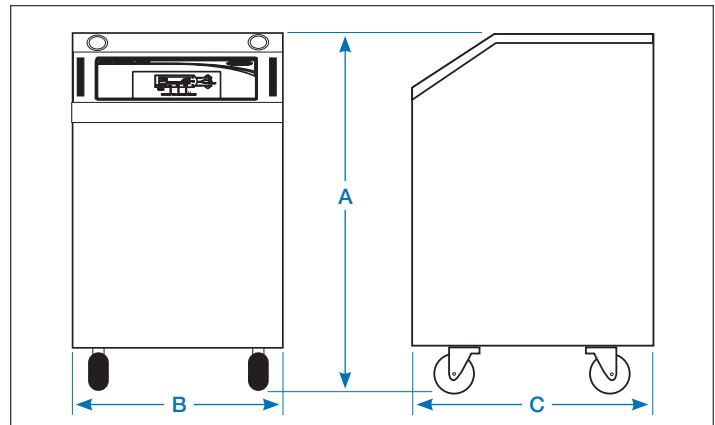
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Models	TW-V
Performance characteristics	
Minimum setpoint temperature °F {°C}	40 {4}
Maximum setpoint temperature °F {°C}	250 {121}
Minimum operating temperature °F {°C}	Approximately 20° {11°} above the cooling water inlet temperature
Standard cooling valve size inches {mm} Cv	3/8 {9.5} Cv 2.5
Available pump sizes	0.75, 2 {0.56, 1.49 kW}
Available heater sizes	12 kW

Pump performance - Consult your Conair representative for pump performance characteristics at other operating points.

Pump	3/4 Hp {0.56 kW}	2 Hp {1.49 kW}
Nominal flow gpm {lpm}	50 {189}	75 {284}
Pressure @ nominal flow psi {kg/cm²}	20 {1.4}	30 {2.1}

Dimensions inches {mm}	
Standard cabinet, not including any connections	
A - Height	24.94 {634}
B - Width	14.09 {358}
C - Depth	24.09 {612}



Water connections	
All models NPT inches (female)	
To/From process	1.50
Cooling water in/out	1.00

Shipping weight ranges lb {kg} Weights vary depending on cabinet size, options, and cooling type (DI or CC). operating points.

Single Zone		
Pump	Minimum	Maximum
0.75 Hp {0.56 kW}	estimated 240 {109}	estimated 325 {147}
2 Hp {1.49 kW}	estimated 248 {113}	estimated 338 {153}

Total full load amps per zone* Standard voltage is 460 volts, 3 phase, 60 Hz.

Heater	12 kW			
Voltage	208-230/3/60	400/3/50	460/3/60	575/3/60
Pump size				
0.75 Hp {0.56 kW}	33.5	19.6	16.7	13.5
2.0 Hp {0.75 kW}	36.4	22.3	18.2	14.6

Specification Notes

* FLA data for reference purposes only. Does not include any options or accessories on equipment. For full FLA detail for power circuit design of specific machines and systems, refer to the electrical diagrams of the equipment order and the nameplate applied to the machine.

Consult with Conair about your application prior to using a check valve on the Cooling Water Inlet of your TW-V controlled Thermolator

Specifications may change without notice. Consult with a Conair representative for the most current information.

