

THERMOLATOR® TW-CD SERIES WATER TEMPERATURE CONTROLLER

CONSISTENT CD/DVD MOLD TEMPERATURE CONTROL



TW2-CD

TW1-CD

The Thermolator® TW1-CD and TW2-CD are specially designed to maintain a CD/DVD mold temperature using circulated water that has been heated or cooled to the required setpoint.

All models offer incoloy heaters; turbine pumps with silicon carbide seals; easy-to-use microprocessor controls and tool-free access panels for fast removal. We offer packages that include phase loss detection; a choice of temperature control points; autostart capability; SPI communications; and remote-mounted operator panels.

THE LATEST DESIGN FOR THE CD/DVD INDUSTRY

We have the Thermolator® model to fit your CD/DVD molding application: direct injection or closed circuit process cooling; single-zone and dual-zone configurations; all bronze 3/4 Hp turbine pumps; and process temperatures to 250°F {121°C}.

Dual-zone models can control two process temperatures at different sections in a mold. Two-zone models have common cooling water manifolds and electrical connections for convenience.

3/4 Hp, TEFC motors are standard. Use these units with any high pressure and low flow process where centrifugal pumps do not operate well.

Optional heaters to 24kW and larger cooling valves available for processes other than CD/DVD.

- **State-of-the-art controls**
Microprocessor controls with auto-tuning of PID control parameters offer uniform temperature control.
- **Regenerative turbine pumps**
Designed for low-flow, high-pressure applications. All feature silicon carbide seals and internal seal flush for extended pump seal life. Pumps are all bronze.
- **Simplified operation**
Choose the dual-zone models to simplify installation and operation of the sprue/cut punch zones or the moving/stationary mold halves.
- **The “casters up” warranty**
Three full years on all Thermolator TW-CD Series models. And a full four-year warranty on the TW1 and TW2 microprocessor controls.
- **Designed for the CD/DVD job**
Tough TEFC motors are built to withstand the rigors of high temperature CD/DVD molding.



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OPTIONS



Motorized Cooling Valve
The slow open/close cycle time eliminates thermal shock and water hammer from your process circuit.



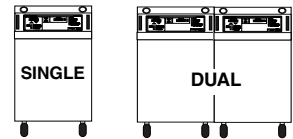
Stacking Rack
Save floor space by stacking two single-zone Thermolators.



Alarm Packages
Call attention to alarm conditions with a bell, strobe light or horn.

SPECIFICATIONS

PERFORMANCE CHARACTERISTICS				
Models	DIRECT INJECT, DI		CLOSED CIRCUIT, CC	
Minimum setpoint temperature °F {°C}	32 {0}		32 {0}	
Maximum setpoint temperature °F {°C}	250 {121}		250 {121}	
Minimum operating temperature °F {°C}	Approximately 20° {11°} above the cooling water inlet temperature*			
Standard cooling valve size inches {mm}	1/4 {6.35}		3/4 {19.05}	
Available pump sizes	0.75 Hp {0.56 kW}		0.75 Hp {0.56 kW}	
Available heater sizes †	9, 12, 18, 24 kW		9, 12 kW	
PUMP PERFORMANCE - Consult your Conair representative for pump performance characteristics at other operating points.				
Zones	SPRUE / CUT PUNCH		MOVING / STATIONARY	
Nominal flow gpm {lpm}	0.5 - 1.5 {1.9 - 5.7}		4.0 - 5.0 {15.1 - 19.0}	
Pressure@ nominal flow psi {kg/cm²}	70 - 55 {4.9 - 3.9}		85 - 70 {6.0 - 4.9}	
DIMENSIONS in. {mm}				
Cabinet Style	SINGLE ZONE		DUAL ZONE	
Height	28.0 {710}		28.0 {710}	
Depth ‡	22.5 {570}		22.5 {570}	
Width	13.75 {350}		27.5 {700}	
SHIPPING WEIGHT RANGES lb {kg} Weights vary depending on heater size and cooling type (DI or CC).				
Pump 0.75 Hp {0.56 kW}	Single Zone		Dual Zone	
	Min	Max	Min	Max
	240 {109}	300 {136}	480 {218}	600 {272}



WATER CONNECTIONS	
All models	
NPT inches (female)	
To/from process	0.75
Cooling water in/out	0.75

TOTAL FULL LOAD AMPS PER ZONE All voltages are 3 phase, 60 Hz.																
Heater	9 kW				12 kW				18 kW				24 kW			
	208V	230V	460V	575V	208V	230V	460V	575V	208V	230V	460V	575V	208V	230V	460V	575V
Pump																
0.75 Hp {0.56 kW}	28.9	26.2	13.1	10.5	37.3	33.8	16.9	13.5	54.0	48.8	24.4	19.5	70.7	64.0	32.0	25.6

SPECIFICATION NOTES:
* Lower operating temperatures can be obtained with optional larger cooling valves.
† For other processes requiring high pressure and low flow, optional heaters to 24kW are available.
‡ Add 12 inches {305 mm} to depth for piping.
Specifications may change without notice. Check with a Conair representative for the most current information.