



Application Engineering®

PROVIDING SOLUTIONS, NOT JUST EQUIPMENT



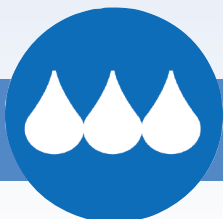
TCU SERIES WATER TEMPERATURE CONTROL UNIT

TrueTemp TCU Series water temperature control units from AEC provide highly accurate control for production applications requiring a continuous supply of temperature-controlled water. They have an operating leaving water temperature range of 32°F to 250°F (0°C to 121°C).

TrueTemp TCUs are available in either direct injection or closed circuit configurations for controlled cooling. For direct injection cooling, solenoid valves regulate the flow of heated water to the process water stream. Closed circuit configurations cycle heated water through a closed loop heat exchanger assembly.

STANDARD FEATURES

- Compact, rugged cabinet with easy-access side panels
- Cast-and-flange design to reduce connection points
- Off-the-shelf, DIN-style, auto-tuning PID fuzzy logic controller - accurate to within $\pm 1^\circ\text{F}$
- High-flow pumps with 30-120gpm capacities
- Half- and full-heat capability, 9kW heater standard
- Dual stage Incoloy® immersion heater with IEC contactors
- NEMA 12 (IP55) electrical enclosure
- 0.25" cooling solenoid valve on 0.75 to 3 hp (.56 to 2.2 kW) models; 0.5" slow-close cooling solenoid valve on 5, 7.5, & 10 hp (3.7, 5.6, and 7.5 kW) models
- Forward-facing liquid-filled To and From Process pressure gauges
- Independent high temperature safety thermostat
- Non-fused lockable rotary through door disconnect
- Graphic control panel with indicator and warning status lights
- Adjustable low supply water pressure switch; 16 psig (110kPa/1.1 bar)
- 150 psig (1,034 kPa/10.3 bars) pressure relief valve
- SICB/carbon pump seal
- 0.75" water supply connection, 1.5" process connections; valve size matches drain size
- Motor branch circuit overcurrent protection with phase loss and overload trip detection
- Automatic vent sequence
- 3" (76 mm) casters



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OPTIONAL FEATURES

- 12 kW, 18 kW¹, 24 kW¹, 36 kW², or 48 kW² heaters
- Unit without heater (includes 0.5" solenoid valve CV = 04)
- Maintained START/STOP switch (push to stop, twist to start)
- Manual bypass
- Brass construction
- Closed loop heat exchanger with 0.5" solenoid (3.7 sq. ft./0.344 sq. m) U-tube, 7.4, 11.2, 18.1, 27.1 sq. ft./0.688, 1.042, 1.683, 2.511 m² shell & tube)
- General fault audio/visual alarm
- Quick cool switch
- Pressure regulator/relief valve for water supply, shipped loose
- Auto system water purge, shipped loose
- Y-strainer, shipped loose
- Hammer arrestor
- 10 ft. (3 m) power cord, no plug, shipped loose
- Rubber feet in lieu of casters
- SCR heater control
- Cooling solenoid slow-close valve
- Modulating valve, 1/2" – 1 1/4" (CV = 0.4–20)
- Stack rack with casters, 2 zone (without manifold), 3 or 4 zone (2 x 2 configuration) compact units only
- Side-by-side dolly, 2 or 3 zone with manifold
- Common wiring and/or piping for two zone
- TEFC motor
- 300°F (149°C) operations, includes silicon carbide/silicon carbide seal (requires 55 psig (379 kPa/3.8 bar) water supply pressure)

1 N.A. for closed-loop compact units

2 Direct injection upright units only, n.a. for 200/3/50 or 230/3/60 VAC



Optional advanced controller

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AEC is committed to a continuing program of product improvement. Specifications, appearances and dimensions are subject to change without notice.

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