

TDV SERIES

Positive/Negative Water TCU



Technical Specifications

Troublesome cooling circuit leaks in processes can result in serious production losses. The leaks may be due to small stress cracks, which leak under pressure. Our Positive/Negative Pressure TCU uses a liquid venturi to draw cooling water through the mold under negative pressure.

Precise temperature control is provided by the operation of a solid state or microprocessor controller, which activates a heater or a cooling water solenoid as required.

Features

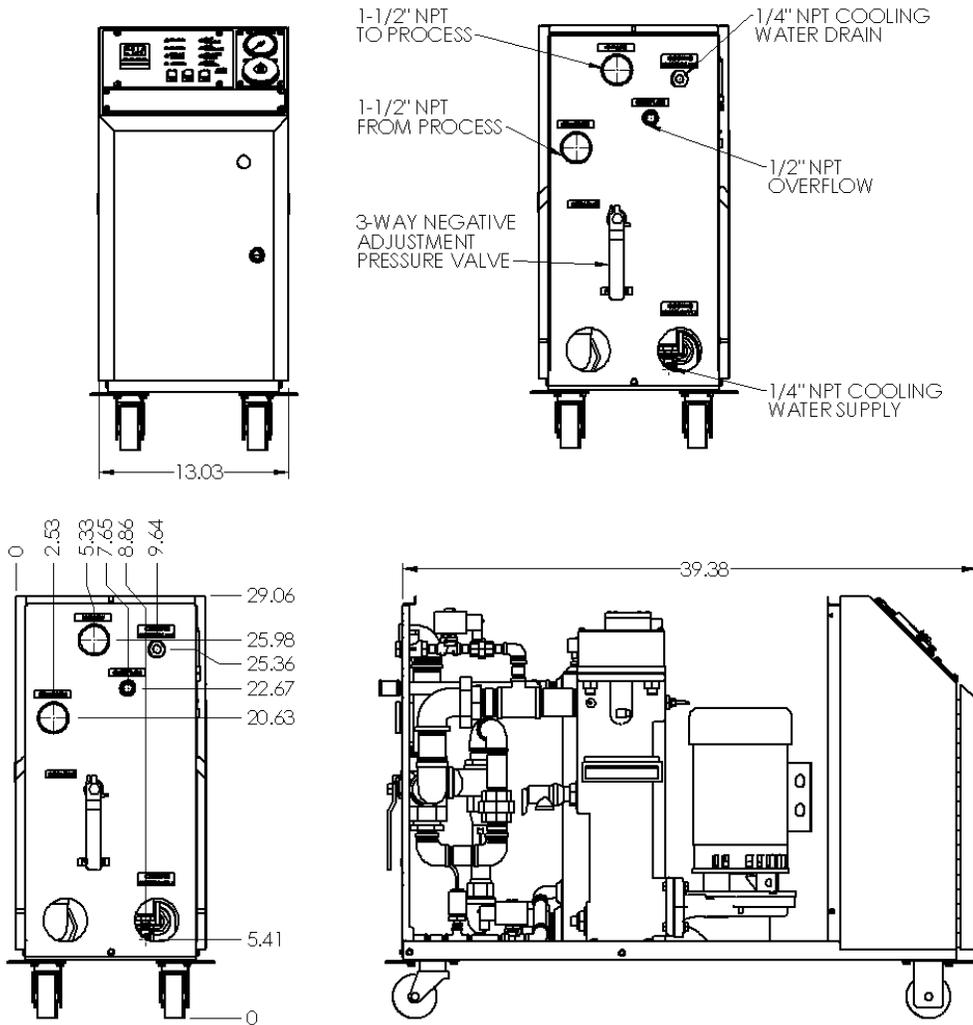
Standard Features

- Off-the-shelf microprocessor-based PID temperature control with Process and Set Value LED readout
- Graphic control panel with indicating and warning status lights
- Operating range of 32°F to 180°F (0°C to 82°C)
- Open reservoir vented to atmosphere
- Single stage Incoloy™ immersion heater with IEC mechanical contactors
- 1/4" cooling solenoid valve (Cv=0.85)
- Hi/low level sensor with 3/8" makeup solenoid valve
- Low supply water pressure switch
- 150 psi (10.3 bars) pressure relief valve
- 2" (5 mm) casters
- 3/4" cooling water connections
- Manually-operated 3-way valve for changeover to negative pressure mode
- Centrifugal pump
- 1-year warranty on parts and labor at factory
- 5-year warranty on controller
- Lifetime warranty on pump housing, impeller, heater tube, piping
- 460/3/60 or 230/3/60 standard operating voltage
- 9 kW heater

Optional Features

- Remote control enclosure (see next page for details)
- Remote thermocouple (10 ft), remote sensor must be sold with the high temperature safety switch option
- Rubber feet in lieu of casters
- High temperature safety switch
- High/low temperature audible and visual alarm, no heater contactor interlock, visual alarm is a strobe
- Crash cool, holds cooling solenoid on, turns heater off regardless of control setting
- 208/230/460 volt 60 Hz, 380/415 50 Hz, consult factory for de-rated heater and pump capacities.
- Pressure gauge (specify locations)
- Power cord, 10 ft., no plug
- Closed circuit with open reservoir
- 0.375" solenoid valve (Cv=1.5) in lieu of 0.25" valve
- Modulating valve, 0.5" (Cv=4.4), 0.75" (Cv=7.5), 1" (Cv=10 or 14), or 1.25" (Cv=20), includes VDC actuator. mA actuator is also available. Consult factory for maximum operating ΔEP for cooling water
- External communications, types RS-232C, -422, -485, single point
- Cooling water in strainer
- Side-by-side (2 zone) w/casters, valving not included
- Severe duty EPDM silicon carbide, 2-3 hp
- NEMA 1 or NEMA 3R disconnect with fuses

Product Diagrams



Specifications

Model	Pump, HP	Flow, GPM	Pressure, PSIG	Heater, kW	Depth in. (cm)	Height in. (cm)	Width in. (cm)	Shipping Wt., lbs. (kgs)
TDV (2hp)	2	50	30	9	40 (102)	26 (66)	15 (38)	260 (118)
TDV (3hp)	3	60	40	9	40 (102)	26 (66)	15 (38)	270 (122)