



TRUETEMP POSITIVE/NEGATIVE PRESSURE TCU

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.



Model TDV1NX

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 mercury 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 (1,034 kPa/10.3 bars) pressure relief valve
- 2" (51 mm) casters
- 3/4" cooling water connections
- Manually-operated 3-way valve for changeover to negative pressure mode
- Horizontally-mounted bronze fitted 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

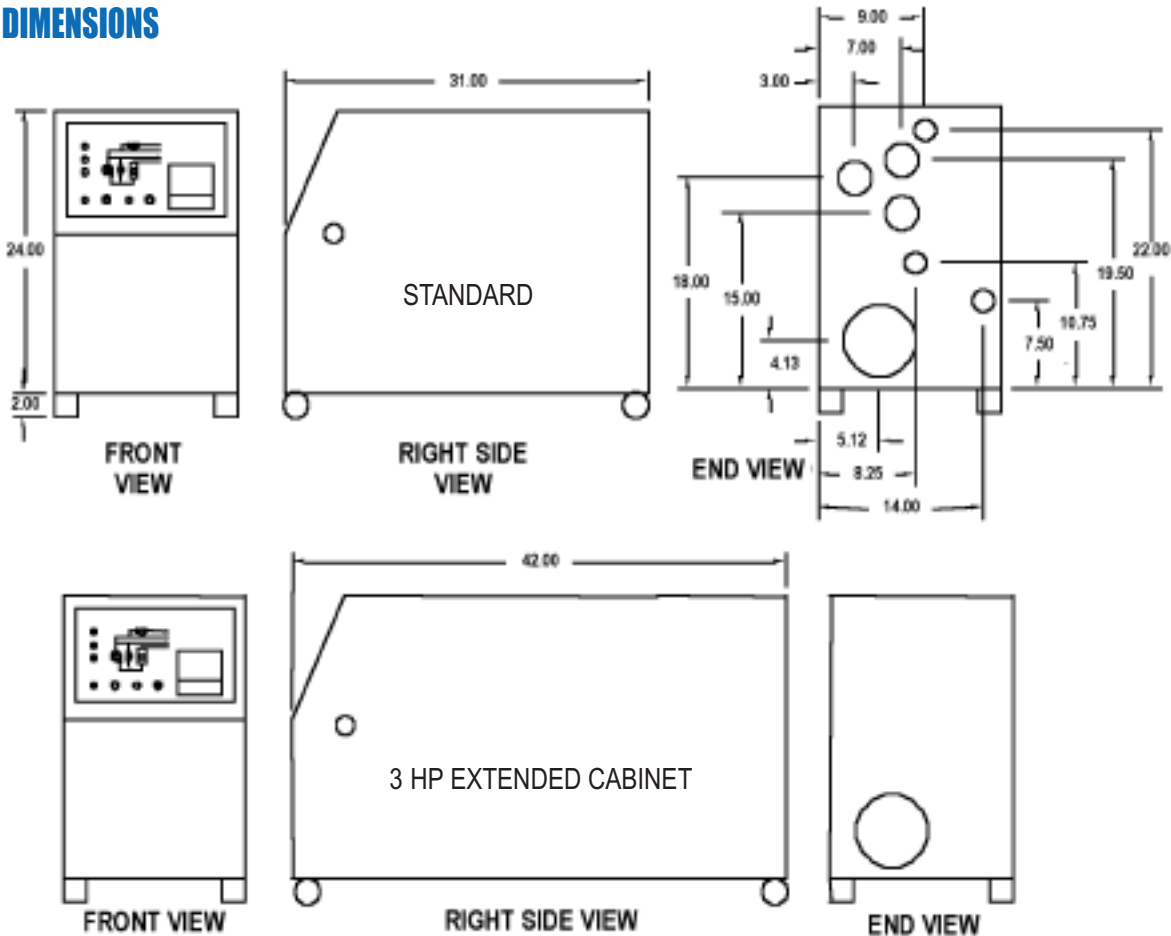
OPTIONAL FEATURES

- 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, 200/208/380/415 50 Hz, consult factory for de-rated heater and pump capacities.
- Pressure gauge (specify locations)
- Power cord, 10 ft., no plug
- Paint internal piping (AEC Charcoal)
- 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 ΔP 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

SPECIFICATIONS

Model	Pump, hp	Flow, gpm	Pressure, psig
TDV1NX	2	60	18
	3	70	38

DIMENSIONS

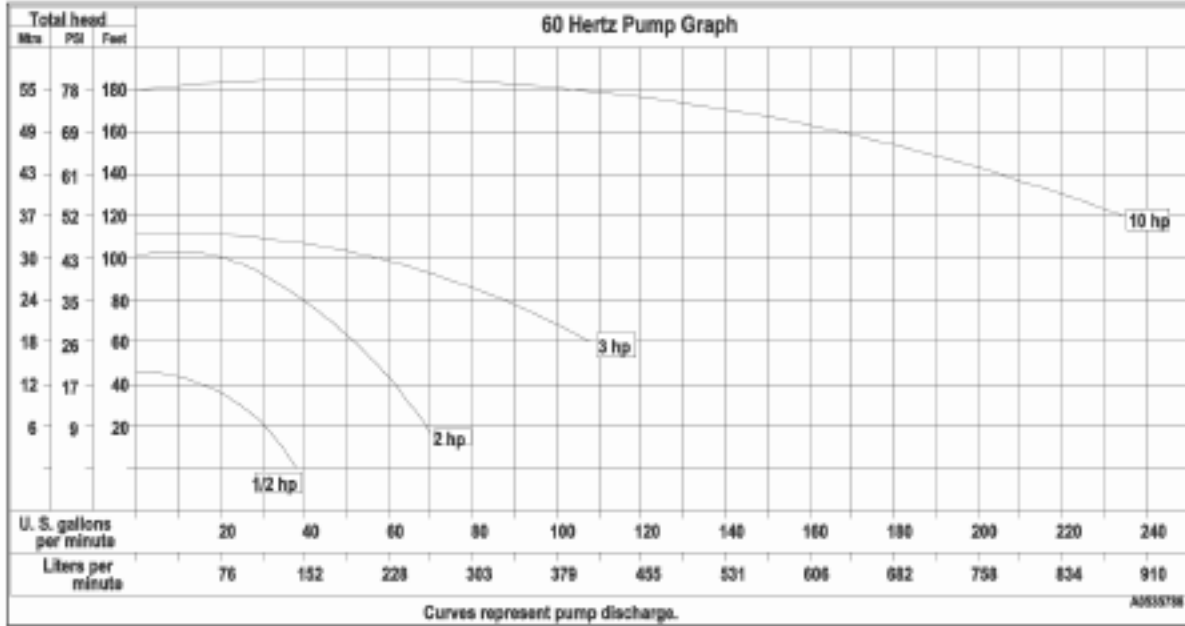


REMOTE CONTROL ENCLOSURE OPTION

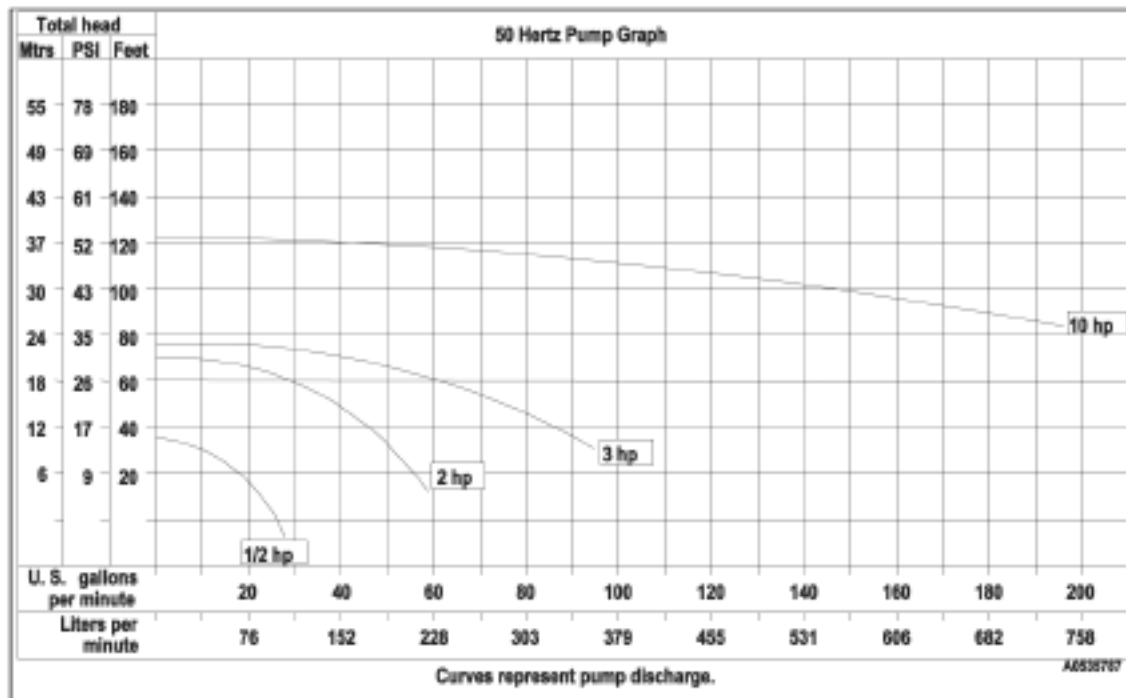
The remote control package includes NX control in remote enclosure, terminal blocks on the temperature controller's electrical enclosure sub-panel and remote enclosure sub-panel. A 10 ft. shielded thermocouple extension wire is also provided.

Customer is responsible for installing electrical wiring between enclosures per applicable codes and standards.

PUMP CURVES: 60 HZ



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NOTES: