

Control Temperature and Stop Mold Leaks

Keep your operation up and running with the Thermolator® vacuTrac water temperature controller. This positive/negative pressure unit can be used as a temporary fix for a leaky mold or bad O-rings.

The vacuTrac is equipped with a manual three-way ball valve that allows you to change the unit from positive pressure to negative pressure by moving the valve handle on the back of the unit counterclockwise. Changing the unit to operate with negative pressure allows the unit to draw air into the mold, effectively stopping leaks.



**Model VTR-DI
single zone**

Single or Dual Zone Models available

Use the vacuTrac to produce negative pressure in the from process lines. Otherwise, the unit functions like a direct injection temperature control unit and can be used when your application requires process temperatures up to 180°F {82.2°C}.

The unit is equipped with a high capacity, heavy-duty jet pump/venturi. Choose 9 or 12 kW heaters and pumps from 2 to 7.5 Hp {1.49 to 5.59 kW}.

Specify single zone if you need one temperature throughout your mold, or dual zone if two different setpoints are required.

You have a choice of two advanced microprocessor control systems. Other options include: bell, strobe or piezo horn for alarm conditions.

- ▶ **Incoloy heaters**
Standard on the vacuTrac, Incoloy heaters resist damage from high temperatures and chemicals.
- ▶ **Three-way ball valve**
Quick and easy changeover from standard positive pressure to negative pressure operation.
- ▶ **Lift-off access panels**
Convenient, tool-free access to internal components. The cabinet lifts away for easy maintenance and servicing.
- ▶ **State-of-the-art controls**
Easy-to-use microprocessor controls provide accurate temperature control. Auto-tuning of the PID control parameter provides uniform temperature control regardless of light or heavy external loading.
- ▶ **Compact, sturdy design**
Small footprint. Designed for efficient use of your valuable floor space.



Features

Expansion/fluid reservoir
accepts thermal expansion of fluid when heated.

Level switches
control tank fluid level.

Air/water separation tank
allows entrapped air to escape to the expansion tank.

High efficiency pump
pushes fluid through the system.

Cooling solenoid valve
lets hot fluid out of system.

Make-up solenoid valve
maintains tank level.

Overflow connection
relieves system static pressure.

Venting line
prevents trapped air in system.

Pressure relief valve
prevents system over pressurization.

To process pressure gauge
Three-way ball valve
diverts flow to generate vacuum.

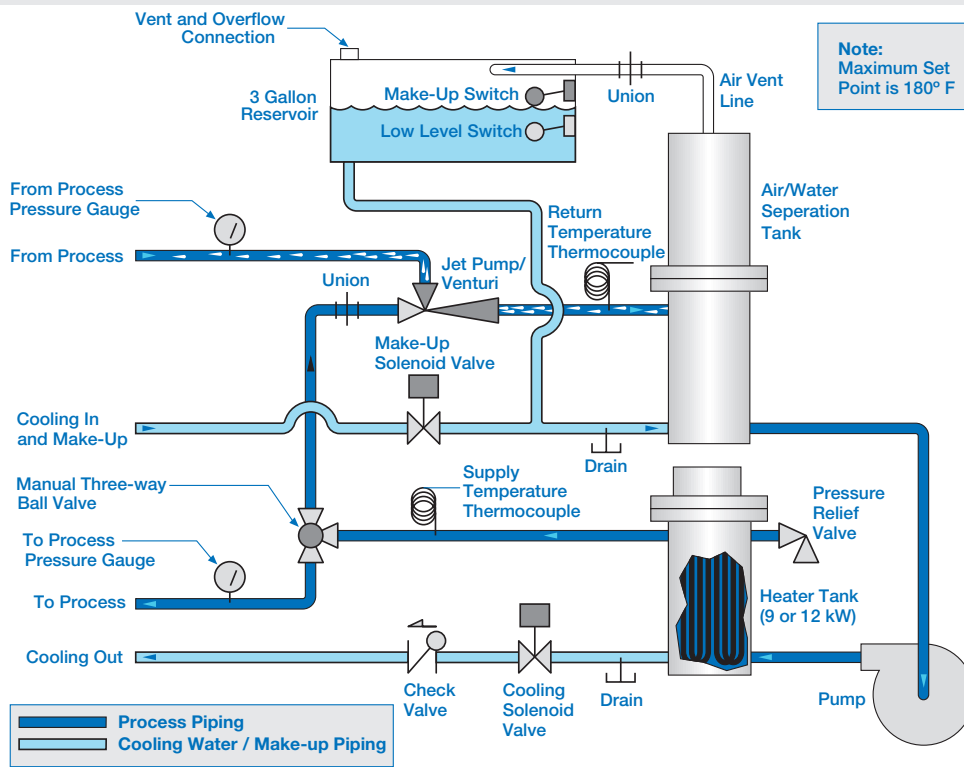
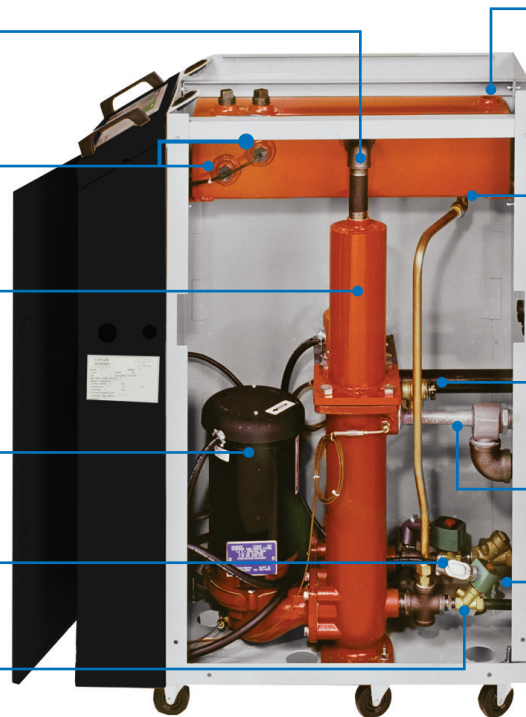
From process pressure gauge

Jet pump/venturi generates vacuum.

Cooling water outlet

Cooling check valve
prevents coolant back flow into the vacuTrac.

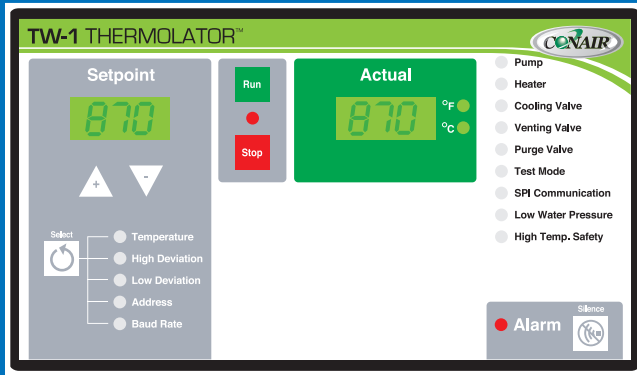
Cooling water inlet



Positive/negative pressure units use a jet pump/venturi to produce negative pressure in the “from process” lines. Water at positive pressure will leak out of mold cracks or bad o-rings. During negative pressure operation, however, air is drawn through the lines, and the mold operates without leaking. A manual three-way ball valve can be closed to make these units into standard direct injection units. Because the units use water and vent to the atmosphere, they have a maximum process temperature of 180°F {82.2°C}.



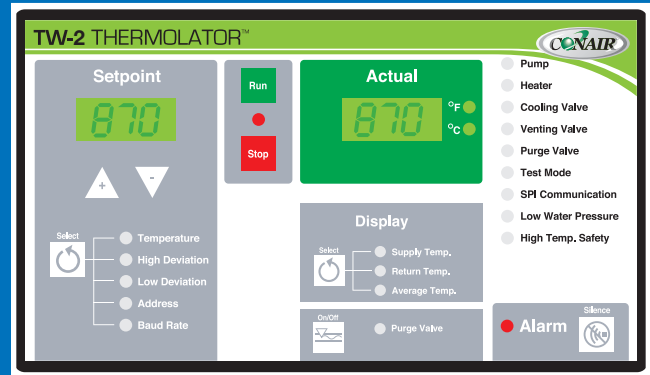
Controls



vacuTrac Control (TW-1)

Our waterproof, durable control is operator friendly and smart. Standard features:

- Automatic fine-tuning of PID control parameters provides uniform temperature control regardless of external loading.
- Adjustable high/low deviation warnings track with your setpoint temperature. Pre-programmed acceleration feature speeds up setting parameters.
- 18 operating and fault indicator lights, including 7 bi-color LEDs, tell you the status of critical components and parameters.
- Password entry prevents unauthorized or accidental changes to operating parameters.



vacuTrac Plus Control (TW-2)

Includes all of the features of the standard vacuTrac control, PLUS:

- Autostart capability for convenient preheating of molds. Works with external timers or switches.
- Choice of temperature control points allows you to monitor and control from the process supply or process return temperature, or from an average of the two.
- Phase detection circuit indicates incorrect pump rotation or an open electrical leg.
- Remote control up to 50 feet. Magnetic panel back allows you to place the controls where you need them. Comes with 15-foot cable. Lengths of 30 or 50 feet optional.

Note: The purge option is not available on the vacuTrac positive/negative pressure water temperature controllers.

Options



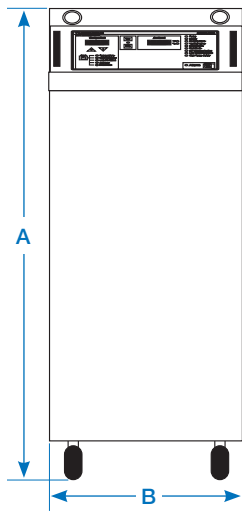
Alarm Packages

Call attention to alarm conditions with a light and horn package.

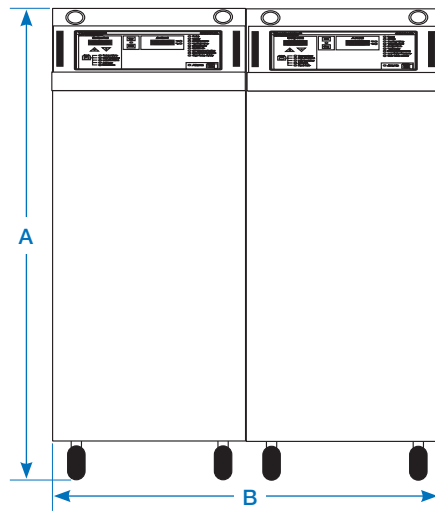
RS485 communication

using SPI protocol. Baud rates and addresses are programmable on the operator panel.

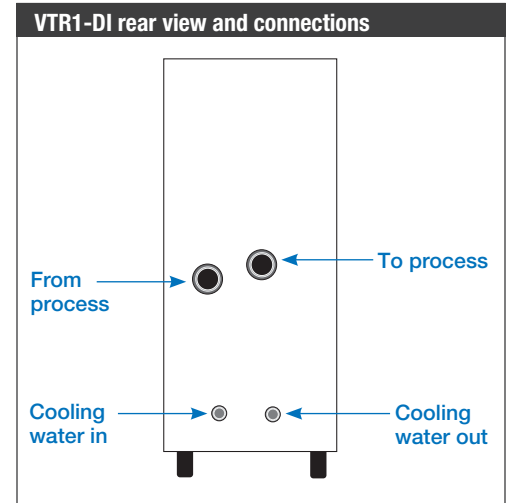
Specifications



VTR1-DI (single zone)



VTR2-DI (dual zone)



Models	VTR1-DI				VTR2-DI			
Performance characteristics								
Minimum setpoint temperature	32°F {0°C}							
Maximum setpoint temperature	180°F {82°C}							
Pump performance								
Pump Hp {kW}	2 {1.49}	3 {2.24}	5 {3.73}	7.5 {5.59}	2 {1.49}	3 {2.24}	5 {3.73}	7.5 {5.59}
Nominal flow gpm {l/min}	55 {208}	80 {303}	100 {379}	115 {435}	55 {208}	80 {303}	100 {379}	115 {435}
Pressure @ nominal flow psi {bar}	31 {2.2}	35 {2.5}	43 {3.0}	51 {3.6}	31 {2.2}	35 {2.5}	43 {3.0}	51 {3.6}
Dimensions inches {mm}								
A - Height	43 {1090}							
B - Width	14 {355}				28 {710}			
Depth	31.5 {800}							
Weight lb {kg}								
Operating	300 {136}	305 {138}	310 {141}	320 {145}	600 {272}	610 {277}	620 {281}	640 {290}
Shipping	470 {213}	475 {216}	480 {218}	490 {222}	770 {349}	780 {354}	790 {358}	810 {367}
Water connections NPT (female) inches								
To / from Process	1.25							
Cooling water inlet / outlet	0.75							

Total Full Load Amps * † per zone	VTR1-DI								VTR2-DI							
	9 kW				12 kW				9 kW				12 kW			
Heater	208V	230V	460V	575V	208V	230V	460V	575V	208V	230V	460V	575V	208V	230V	460V	575V
Pump size																
2 Hp {1.49 kW}	31.8	28.8	14.4	11.5	40.2	36.4	18.2	14.6	63.6	57.6	28.8	23.0	80.4	72.8	36.4	29.1
3 Hp {2.24 kW}	34.7	31.4	15.7	12.6	43.1	39.0	19.5	15.6	69.3	62.8	31.4	25.1	86.1	78.0	39.0	31.2
5 Hp {3.73 kW}	38.5	34.8	17.4	13.9	46.8	42.4	21.2	17.0	76.9	69.9	34.8	27.8	93.7	84.8	42.4	33.9
7.5 Hp {5.59 kW}	45.7	41.4	20.7	16.6	54.1	49.0	24.5	19.6	91.5	82.8	41.4	33.1	108.3	98.0	49.0	39.2

Specification Notes

* All voltages are 3 phase, 60 Hz.

† 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.

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

