

# Thermolator

## TW, TW-T - Series



TW Series

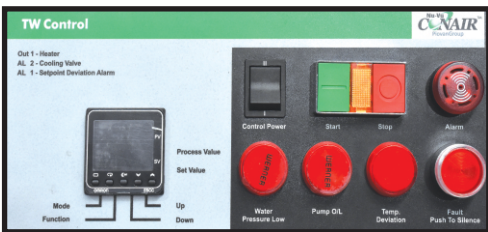


TW-T Series

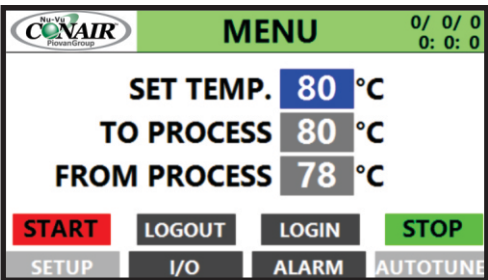
The Thermolator® is designed to maintain the process temperature with circulated water that has been heated or cooled to the required set point.

All models offer incoloy heaters; silicon carbide pump seals; pressure gauges; easy-to-use microprocessor controls and tool-free access panels for fast removal. We offer options that include process line purge; a choice of temperature control points; auto start capability; Modbus communication; and remote-mounted operator panels.

### TW CONTROL



### TW-T CONTROL



### Optional Features



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



**Compressed Air Purge Valve**  
Quickly evacuates fluid from the process circuit, allowing for faster, cleaner disconnection of the temperature controller from molds and hoses.

| Model                           | TW control   | TW-T Series         |
|---------------------------------|--------------|---------------------|
| Direct Injection                | ●            | ●                   |
| Closed Circuit                  | ○            | ○                   |
| Isolated Circuit                | ○            | ○                   |
| <b>Construction</b>             |              |                     |
| Standard Pump Range             | 3/4 to 15 HP | 3/4 to 15 HP        |
| Standard Heater Range           | 9 to 48 KW   | 9 to 48 KW          |
| Cast Heater / Pump              | ●            | ●                   |
| Heater Safety (Error)           | ●            | ●                   |
| Incoloy Heaters                 | ●            | ●                   |
| Silicon Carbide Seals           | ●            | ●                   |
| Seal Flush Line                 | ●            | ●                   |
| Pressure Gauges                 | ●            | ●                   |
| Seal Saver Mode                 | ●            | ●                   |
| <b>Controls</b>                 |              |                     |
| PID Control                     | ●            | ●                   |
| Set Point / Actual Display      | ●            | ●                   |
| Password Protection             | ●            | ●                   |
| Modbus-RTU via RS-485           | ○            | ○                   |
| Modbus-TCP Via Ethernet         | ○            | ●                   |
| Auto Start Capability           | ○            | ●                   |
| High temperature safety         | ○            | ○                   |
| Purge Valve Control             | ○            | ○                   |
| Pressure Transducer             | ○            | ○                   |
| Contactor Based Heating Control | ●            | ●                   |
| SSR Based Heating Control       | ○            | ○                   |
| Phase Detection Circuit         | ○            | ●                   |
| Auto Cool Stop                  | ○            | ●                   |
| LOTO System                     | ○            | ○                   |
| Energy meter kit                | ○            | ○                   |
| Choice of Control Points        | ○            | ●                   |
| <b>Status / Alarm Lights</b>    |              |                     |
| Panel - Mounted Status Lights   | LED Lamps    | Alarm Disply screen |
| Audible Alarm / Strobe light    | ●            | ●                   |
| Alarm Dry Contacts              | ○            | ○                   |
| Remote RTD Support              | ○            | ○                   |
| 2 Stage Red Green Tower Light   | ○            | ○                   |
| Trending                        | ○            | ●                   |

● = Standard  
○ = Optional

PID Control with autotune function

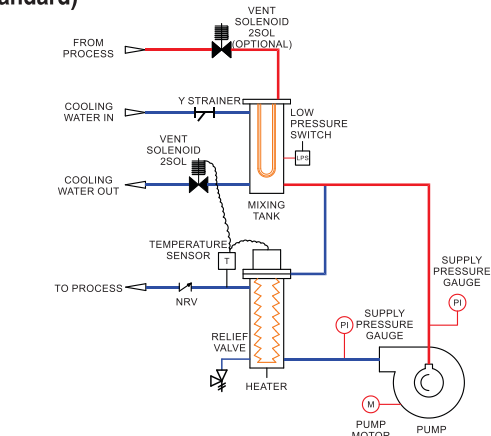
Auto Start works with external timers or switches for convenient pre-heating of molds

Purge On/Off button included on control

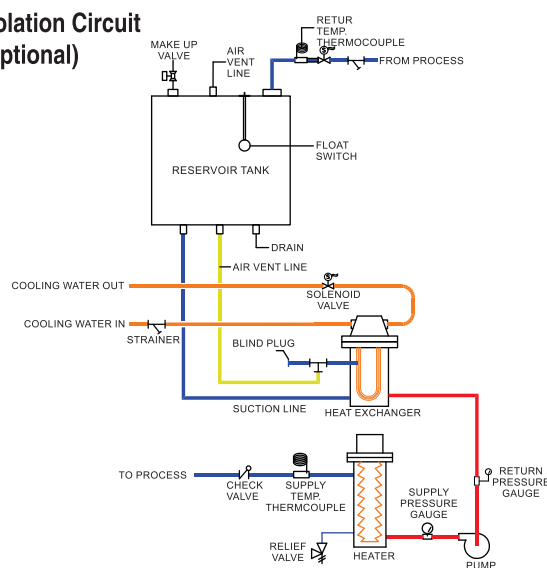
Phase detection indicates incorrect pump rotation or an open electrical leg

Control temperature based on temperature at process supply or return points, or an average of the two points

### Direct Injection (Standard)



### Isolation Circuit (Optional)



### Technical Specifications

| Model                                  | 3/4 HP                                         | 1 HP              | 2 HP              | 3 HP                     | 5 HP              | 7.5 HP            | 15 HP                  |
|----------------------------------------|------------------------------------------------|-------------------|-------------------|--------------------------|-------------------|-------------------|------------------------|
| <b>Mould Temp. Regulator</b>           |                                                |                   |                   |                          |                   |                   |                        |
| Circulating Medium                     | Water                                          |                   |                   |                          |                   |                   |                        |
| Maximum Temperature °C                 | 121                                            |                   |                   |                          |                   |                   |                        |
| Heating Capacity KW                    | 9 / 12 / 18 / 24 / 36 / 48                     |                   |                   |                          |                   |                   |                        |
| Cooling Type                           | Direct Injection                               |                   |                   |                          |                   |                   |                        |
| <b>Circulation Pump</b>                |                                                |                   |                   |                          |                   |                   |                        |
| Maximum Flow Rate LPM                  | 120                                            | 230               |                   | 380                      | 480               | 650               | 1600                   |
| Maximum Pressure Bar                   | 2.7                                            | 2.2               | 4.6               | 4.3                      | 6                 | 4.4               | 3.5                    |
| Nominal Flow (LPM) @ Pressure (Bar)    | 84 LPM @ 2.2 Bar                               | 170 LPM @ 1.8 Bar | 183 LPM @ 3.0 Bar | 300 LPM @ 3.1 Bar        | 400 LPM @ 4.0 Bar | 500 LPM @ 3.9 Bar | 1000 LPM @ 3.3 Bar     |
| Pump Drive KW                          | 0.5                                            | 0.75              | 1.5               | 2.2                      | 4                 | 5.5               | 11                     |
| Minimum Operating Temperature          | 11 Deg.C above cooling water inlet temperature |                   |                   |                          |                   |                   |                        |
| <b>Voltage / Connected Load</b>        |                                                |                   |                   |                          |                   |                   |                        |
| Electrical Power Supply                | 415V, 50 Hz, 3 Phase                           |                   |                   |                          |                   |                   |                        |
| Control Voltage                        | 230V, 50 Hz, 1 Phase                           |                   |                   |                          |                   |                   |                        |
| Total Connected Load KW                | 12.5                                           | 12.75             | 13.5              | 14.2                     | 16                | 17.5              | 23                     |
| <b>Process Water Connections</b>       |                                                |                   |                   |                          |                   |                   |                        |
| Inlet                                  | R 1-1/2"                                       |                   |                   |                          |                   |                   | R 2-1/2"               |
| Outlet                                 | R 1-1/2"                                       |                   |                   |                          |                   |                   | R 2-1/2"               |
| <b>Cooling Tower Water Connections</b> |                                                |                   |                   |                          |                   |                   |                        |
| Inlet                                  | R 1" BSP Inside thread                         |                   |                   |                          |                   |                   |                        |
| Outlet                                 | R 1/4" BSP Inside thread                       |                   |                   | R 1/2" BSP Inside thread |                   |                   | R 1" BSP Inside thread |
| <b>Main Dimensions</b>                 |                                                |                   |                   |                          |                   |                   |                        |
| W x D x H mm                           | 360 x 760 x 800                                |                   |                   | 360 x 830 x 900          |                   |                   | 620 x 1350 x 900       |
| Weight Kg.                             | 100                                            |                   | 125               |                          | 140               | 150               | 325                    |
| Color                                  | RAL 9005 Black / RAL 7047 Telegrey 4           |                   |                   |                          |                   |                   |                        |

All specifications are subjected to change without prior notice.  
\*We can also offer indirect cooling heat exchangers.

\*\* Connected load Considering 12 KW heater model.

LEADING MANUFACTURER OF PLASTIC AUXILIARY EQUIPMENT  
Material Storage | Conveying | Drying | Blending | Heat Transfer | Size Reduction



(An ISO 9001:2015 Certified Organization)

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