

# Sealant and Adhesive Temperature Conditioning Systems



Paint, Powder & Sealant System Integrators  
- Specializing in Stainless Steel

Precise Finishing Systems' team of engineers have developed a self contained sealer and adhesive temperature conditioning system. The system has the ability to accurately maintain your process by precisely controlling a closed water circuit. The system monitors your process and adjusts the water temperature accordingly to maintain your material dispense temperature within .5 °C/F of set-point.

The water circuit can circulate as high as 7 GPM/ 26 LPM, while maintaining a temperature range from 60 °F/15.5 °C to 140 °F/60 °C. Cross ambient temperature control can also be achieved.

This system utilizes an advanced, but simple CASCADE control algorithm. This allows the system to create a large temperature differential between the water circuit and the process material to achieve the quickest process temperature change possible.

As the process approaches the desired set-point, the algorithm adjusts the water temperature to closely follow the process. This makes for the most stable control system of its kind currently on the market.

Not only does this system consume minimal floor space in comparison to competitive products, but it offers increased water flowrates and heating/cooling capacities. Additionally, the system is available in single zone (as shown) and dual zone circuitry. The dual zone unit maintains the same amount of floor space by simply stacking the second circulation module on top of the first.

Every system is constructed of non-ferrus materials and completely wired and tested prior to shipment. Simply add a power feed, fill the system with conditioned water, connect the system to your process, and the system will begin controlling.

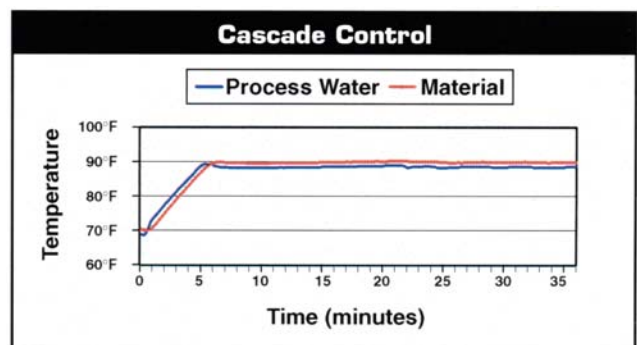


Figure 1

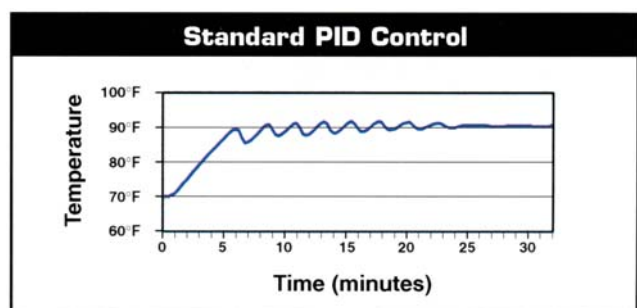


Figure 2



# Sealant and Adhesive Temperature Conditioning Systems



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## Technical Specifications:

### Cooling Capacity

- 6,000/12,000/24,000 BTU/Hr.
- 60° F/15.5° C at 7 GPM
- 240VAC/1 ph/50 or 60 Hz
- Thermostatically controlled
- Capable of "no flow" applications

### Heating Capacity

- 5000 kW at 480VAC/3 ph/60 Hz
- 3700 kW at 220VAC/3 ph/60 Hz
- Incoloy coils
- SCR Controlled

### Pump

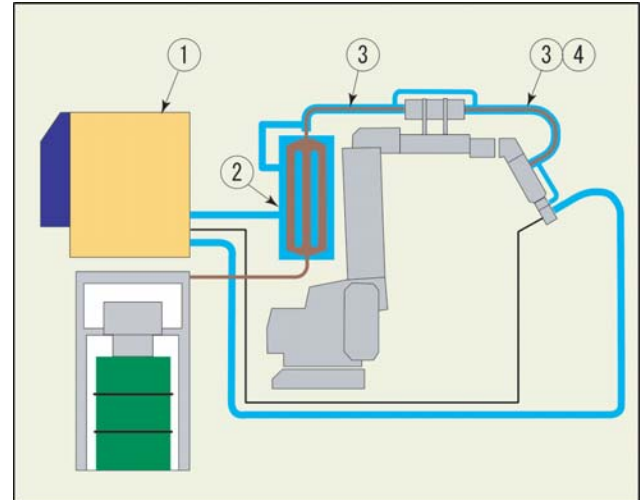
- .75 hp Air Cooled Centrifugal Pump
- 1 hp Air Cooled Centrifugal Pump

### 3-Way Control Valve

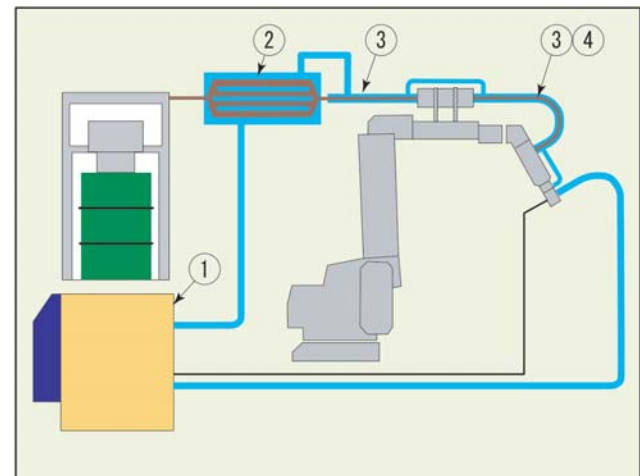
- 3/4" Diverting Valve Electric Actuated
- Actuator: 120VAC/1 ph with 1000W feedback potentiometer
- 4 - 20 mA Controller
- Single Zone System Dimensions
  - 25" W x 34" D x 39" H
  - 300 lbs.
- Dual Zone System Dimensions
  - 25" W x 42" D x 59" H
  - 400 lbs.

### PID Process Controller

- Cascade control algorithm
- Heat/Cool Cross Ambient Control
- 3 Analog Inputs
- Burst-Fire™ DC Output to circulation heater
- SCR for proportional heater
- 4-20 mA output to control valve for chilled water regulation
- RS232/485 communications standard
- 4 line easy to read Liquid Crystal Display



1) Temperature Control Unit, 2) Robot Mount Heat Exchanger, 3) & 4) Conditioned Hose Covers



1) Temperature Control Unit, 2) Inline Heat Exchanger, 3) & 4) Conditioned Hose Covers

## Typical Applications

- Hemflange
- Body Shop Sealers
- Paint Shop Sealers
- Adhesives
- Black Out
- Automatic and Manual Applications