

RADIUS ENGINEERING, INC.

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Radius 5 Gallon RTM Dispenser

The Radius 5 gallon RTM dispenser, specifically equipped to handle reactive material is a non-circulating system which melts and pumps single component resins such as PR500/520 from straight-sided, 5-gallon (20 liter) shipping pails. A heated one-piece platen with gear pump is lowered into the resin pail. An air-tight compartment is created below the platen by the platen seal.

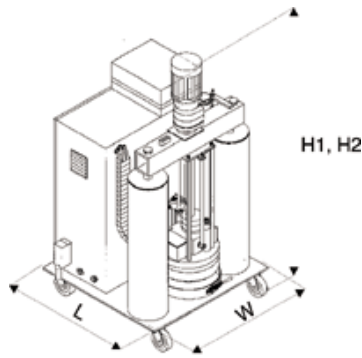
The pump transfers heated material from a port in the bottom of the platen and forces it to the pump manifold, and through a heated injection line that is connected to a tool. Material in the bottom of the pail remains solid until the platen moves further down, therefore imposing no heat history on the un-melted material.

Radius control circuitry includes:

Resin pressure control: resin injection pressure (up to 500 psi) can be controlled by the operator.



Optional data acquisition: the Radius 5 gallon RTM dispenser has the ability to interface with computer software for monitoring and recording process parameters.



Dimensions:

- L: 915mm / 36 in.
- W: 93 mm / 37 in.
- H1: 1440 mm / 57 in.
- H2: 2040 mm / 80 in.
(extended)

Specifications:

- Application: high capacity system for delivery of resin into tooling at high pressures.
- Resin Type: any single component system directly from shipping container.
- Resin capacity: up to 5 gallons (18925cc).
- Pail Diameter: 280 or 286 mm / 11 or 11.3 in.
- Pressure application: DC motor coupled to gear pump.
- Voltage: 480 Vac, 3 phase, 25 amps.
- Wattage: 9 kW
- Pneumatic requirements: 80-100psi.
- Weight: approx. 360 kg / 794 lb.
- Maximum flow rate: 500cc/min
- Maximum pressure limit: 500psi



Smooth Platen

System Features:

- Positive-displacement gear pump driven by a continuous duty DC motor, featuring modular design for easy removal, disassembly and replacement.
- Microprocessor based CD 20 control system with easy to use operator panel and 7-segment displays provide precise control of pump speed and temperatures. Features include sequential startup, programmable over and under temperature alarms, temperature setback and automatic diagnosis.
- Smooth melt platens are supplied with non-stick ChemCoat® surfaces. This durable surface makes clean-up and maintenance very easy.
- Modular melt platen design allows for ease of change of the Teflon® encapsulated pail seal of the platen melting surface.
- Drum centering ensures perfect positioning of the pail and reduces the amount of resin remaining in the empty pail to a minimum.
- Adjustable contacts “drum low” and “drum empty” to notify operators,

automatic air blow-off and drum holddown simplifies pail changes.

- Pressure control valve allows adjustable and accurate output of resin pressures.
- The output pressure control feature will maintain the hydrostatic pressure at a constant, programmable level.

Optional Features:

- Profibus interface will allow seamless integration into the control system (PLC) of the production machine; for statistical process control / data logging, remote control of all functions of process data.
- Week / day timer saves heat-up time by switching the unit’s heaters on and off automatically.
- Warning light tower allows seeing the status of the unit (on / ready / drum low / drum empty) from a distance.
- Additional temperature channels for use of devices that need accurate temperature control.