

See-Flo[®] 387

For Bonding Batteries

Case Study: Battery Manufacturing



Customer

El-Power

Target shot size

0.7 cc's

Material

Quadrant Chemical
(A – 2049; B – 2050)
2 component epoxy
1:1 mix ratio

Application

Bonding small batteries for toys
and emergency lighting

Dispense Rate

1 'shot' every .7 seconds
49,200 cycles per day

The See-Flo 387 was chosen to apply a small amount (0.7 cc's) of epoxy around the battery terminals in a very short amount of time. To accomplish this, electric limit switches were added to reduce the cycle time of the system.

Because the material is manually applied, a Luer-Lok needle was fixed to 24" tubing to permit the operator to trace the small terminals. The See-Flo 387 is an air powered, production-proven meter/mix system for dispensing measured 'shots' (a fixed amount) of the low viscosity, two component epoxy resin.

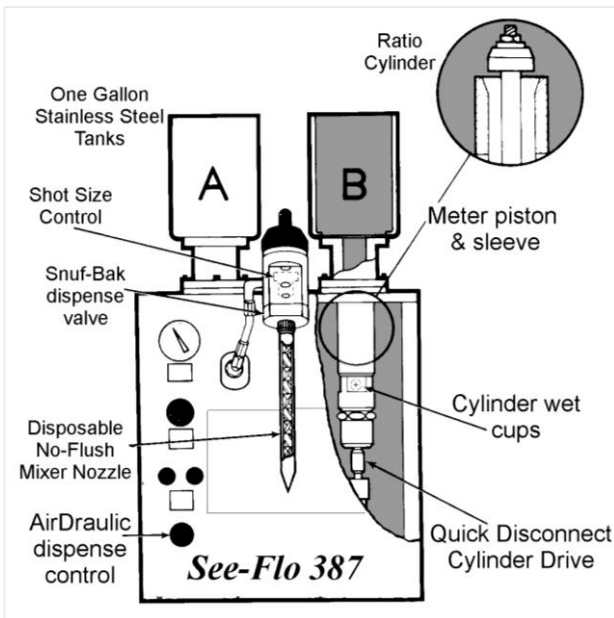
Operation

The See-Flo 387 dispenses a pre-selected amount of mixed material each time the unit is actuated. The amount of mixed material per shot is a function of the manual shot size adjustment. The constant flow rate can be manually adjusted.

Shot Size and Operator Control

The volume or amount that is dispensed is regulated by the stroke length of the metering pistons. Shot size may be quickly changed by a readily accessed adjustment. A positive hard stop results in extremely accurate shot repeatability.

See-Flo 387



Machine Specifications

- Supply Air: Must be from filter and dryer assembly
- Air Pressure: Minimum 60 PSI (415 kPa)
- Main Air Inlet Port: 1/4" NPT Ball Valve
- Part A & B Tank Drain: (2) 1/4" NPT Ball Valves
- Materials of Construction: Carbon Steel, Stainless Steel, Elastomer Seals
- Drive for Meter: Air over Oil Cylinder with Oil Tank
- Dimensions: 8.2" deep x 16.2" wide x 28" high
- Supply Tanks: (2) 1 gallon (4 liter), stainless steel with lid
- Dispense Valve: No-Drip® with Disposable Mixer, Shroud, Flow Divider and Grease Cap
- Dispense Valve Bracket: Cabinet or Remote Mounted
- Use Multiple Dispense Starts for Larger Shot Sizes

Features

- Complete Meter-Mix Dispense system for two-component, low viscosity materials
- Shot sizes from 1cc to 35 cc (at 1:1 ratio)
- Unit is all air powered. No electric required
- Flow rate is controlled by an air-over-oil drive system for flow control
- Fixed ratio meter assembly for accuracy

- Adjustable shot size & flow rate control

Components

- (2) 4 Liter SST supply tanks
- Fixed ratio metering system
- (2) Fluid dispense hoses (A and B)
- Adjustable No-Drip Dispense valve
- Disposable No-Flush mixers
- Metal Shroud for Mixer
- Foot pedal Start-Dispense actuator
- All Pneumatic controls

Larger Dispense Volumes

For larger shot volumes required than indicated above simply use multiple dispense start actuations.

Example: The maximum volume of a 2:1 ratio is approximately 26 cc (17.5cc + 8.7cc). To dispense 48 cc of 2:1 material set the shot size to 24 cc and dispense 2 shots of material. There is no limit to the maximum volume dispensed.

For more information, speak with your Nordson representative or contact your Nordson regional office.

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