

Application Report: Battery Manufacturing

See-Flo 387 for bonding



Customer	El-Power, San Diego
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.

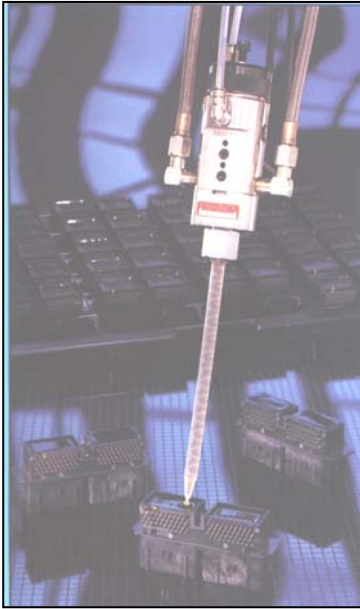
Operation

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.

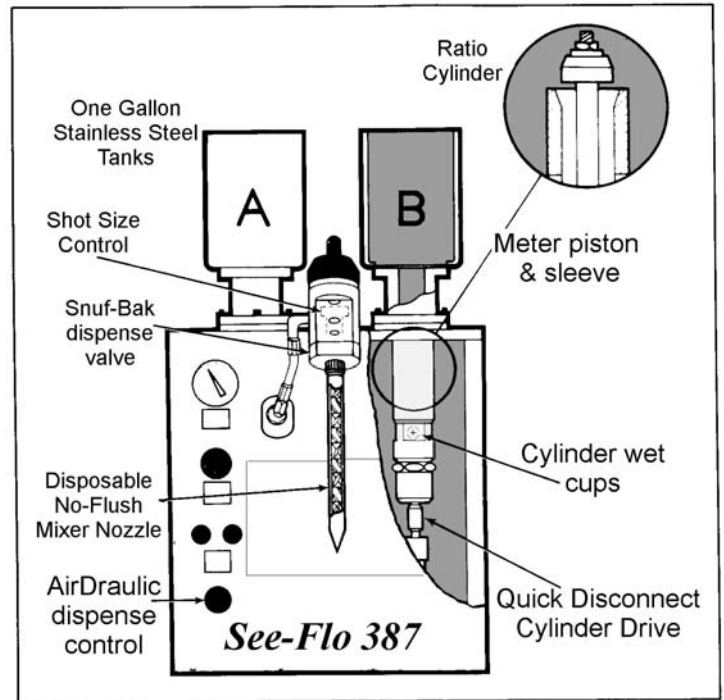
See-Flo 387



- Accurate positive displacement meter
- Fixed mix ratio - no adjustment needed
- Manual Shot size control with hard stop
- **Air-Draulic™** control for precise dispense rate flow control
- Single acting meter cylinders
- Meter cylinder wet cups for moisture sensitive materials
- Shot size range: 0.5 cc up to 32 cc (depending on ratio)
- Two - 1 gallon stainless steel gravity feed supply hoppers (standard)
- Footswitch actuator included
- **No-Drip®** dispense valve - no material drip at shut off
- **No-Flush™** disposable static mixer **eliminates solvent flushing**
- Compact, bench top design

Changing Mix Ratio

Every **See-Flo 387** includes one **free ratio change**. In many instances, changing the ratio means that a costly metering pump must be purchased. To change the 387's ratio, simply remove the original metering sleeve and piston cup and reinsert a **free** replacement set. Ask your sales representative for details.



Shot
Size
Examples

Ratio	With Large Piston Set	With Small Piston Set
1:1	6.0 - 32.0cc	0.5 - 2.50cc
2:1	4.5 - 24.0cc	0.7 - 3.75cc
3:1	4.0 - 22.0cc	1.0 - 5.25cc



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