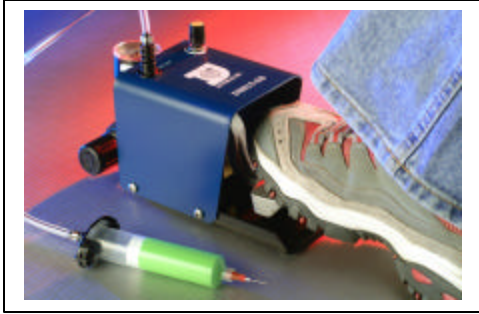

I&J Fisnar Inc. - Dispensing Dynamics - Part 3 - Dispensers

Pneumatic Dispenser Options

DB815 and Model DB815-SB



These two foot-pedal models are basic pneumatic dispensers and operate simply by controlling an air-actuated regulated air valve using a foot pedal.

The dispenser is positioned under a bench on the floor within ergonomic reach of an operator's foot. A 5-foot barrel adapter assembly is connected via syringe or cartridge to the dispenser air outlet. The operator controls the shot

size, increasing or decreasing the size of the shot by either changing the size of the tip or increasing or decreasing the duration that the foot pedal is depressed. The operator can also adjust the regulated air input to increase or decrease the air pressure to the syringe.

As the operation is 100% mechanical, it cannot be controlled by any external device. When a non-electrical system is required, the DB815 and DB815-SB are excellent options as long as only moderate precision is needed. For dispensing low-viscosity materials, model DB815-SB with suck-back should be selected as the model of choice, but an in-line filter trap is recommended as a back-up safety filter to prevent the fluid being drawn into the valve during suck-back, particularly as the air hose descends to the floor.

VSE215A-II-CE

The model VSE215A-II-CE is a bench dispenser that supplies regulated air pressure but does not include a timer. It has a few advantages over the foot-actuated DB815 model as some operators prefer a small foot pedal over the larger pneumatic pedal of the DB815.

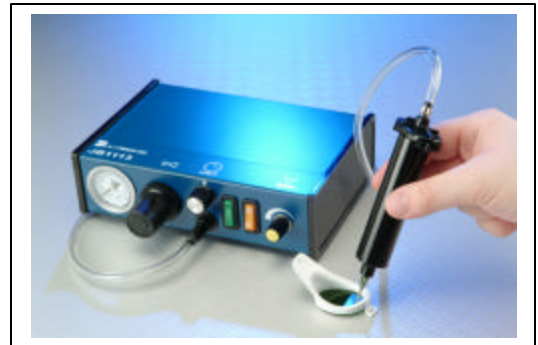
However, the VSE215A-II-CE should not be used when dispensing from collapsible tubes – toothpaste type or cartridges. The smaller air solenoid in the VSE215A-II-CE does not permit fast depressurization of the chamber and will probably cause dripping from the tip.

JBE1113 Bench Time - Controlled Dispensing

When a precise timed shot is required, these popular automatic dispensers provide a simple and economic solution. The JBE1113 liquid dispenser can be activated by an operator-controlled foot pedal or finger switch to dispense prepackaged materials supplied in syringes, such as SMT solder pastes, adhesives, welding creams, thermo-conductive adhesives, etc. The JBE1113 can also be used for prototypes, preproduction trials, repairs and for general bench production.

Pressure and time determine the amount of fluid which will be dispensed. Dispensing accuracy is also assisted by dispensing needles. Needles are available in a selection of sizes and are fitted to the syringe by a luer-lock fastening. The JBE1113 includes a digital timer that is programmable from 0.01 to 31 seconds. A pressure regulator controls the output air-pressure pulse to the syringe. The fluid dispenser may be operated in Timed (Momentary) or Manual (Continuous) modes.

As shot size is controlled by the dispenser and not dependent upon the operator, the system provides consistent and repeatable deposits. For low-viscosity fluids a suck-back feature prevents any post-dispense dripping by applying a vacuum to the syringe immediately following the dispense cycle



DSPE501A

The DSPE501A fluid dispenser has all the features of the JBE1113 but includes a larger solenoid that makes it suitable for dispensing from collapsible tubes requiring fast depressurization of the chamber and preventing dripping from the tip.

The versatility of the DSPE501A liquid dispenser makes it suitable for use with many of the fluid products used in assembly. The DSPE501A can be used to dispense from 1/10th gallon (300 ml) cartridges. This is particularly useful for dispensing silicones, which are normally supplied in these packages. Materials available in other types of containers can be transferred to standard cartridges ready for dispensing using the DSPE501A.



DSPE501A-TILL

This liquid dispenser is similar to the DSPE501A but includes an additional analog pressure gauge to reference suck-back vacuum in psi.

DSPE501A-4

This liquid dispenser is similar in features to the DSPE501A but has an integral air manifold to supply four air portals to the front panel. It should be noted that the manifold distributes an air pulse from a single solenoid and, as such, the delivered pulse to the portals is not uniform in its pressure distribution.

Adjustments to the air delivery system from the portals to the dispensing apparatus will be necessary when using this system for auto-cycling.



SMDE602A-CE

These units are similar to the DSPE501A automatic dispenser except that a manually controlled vacuum pick-up tool has been incorporated into the mechanism.

DD305A

The model DD305A digital dispenser controller provides a digital display for shot control. A keypad provides a programmable timer range from 0.01 seconds to 99.99 seconds. In addition, six (6) shot sizes can be preprogrammed and stored in the unit.

Another advantage of using the DD305A digital dispenser is its “teach & learn” feature. The system can be placed in manual mode and the operator dispenses a required amount of material, adjusting the deposit until satisfied. When the desired size is reached, the unit is placed in automatic mode and the time for that specific shot stored as a program sequence number that can be recalled for repeatability.

The DD305A digital dispenser provides two air output portals, particularly useful for controlling two valves simultaneously. An air output is available at the rear for reservoir control.

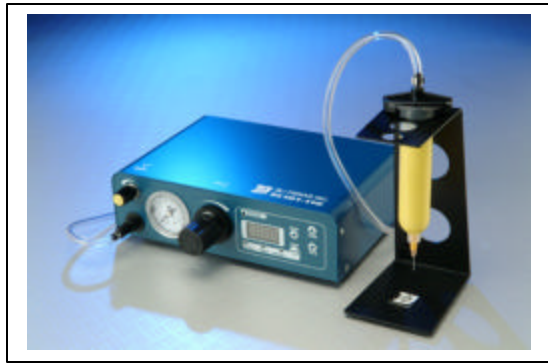
DK118 Digital Dispenser

The DK118 fluid dispenser is a digital display system with a “teach & learn” feature similar to the DD305A. Once a shot time for a dispensing application has been proven to provide the desired volume, the dispense time can be simply entered into the memory of the DK118. The data will be retained until a new time is entered. This “teach & learn” method ensures a consistent and reliable dispensing operation.



The system’s digital display can be switched to indicate either dispense time or dispense pressure.

SL101 Digital Dispenser



The SL101 digital dispenser is the latest “teach & learn” bench top dispenser with a bright LCD and 10 memory locations to automatically cycle 10 self-taught programs. Auto-cycling is one of three operation modes available. The other two are: Manual-Mode, enabling a dispense operation controlled by a foot pedal, and Timed-Mode that will dispense a pre-set time.

Touch-sensitive controls program the SL101 with dispense periods from 0.01 – 99.99 seconds. Systems are available in 110V and 220V versions. Air input is 70 – 100 psi (5 -7 bar). Dispense output air pressure can be programmed from 1 – 100 psi. An adjustable suck-back feature prevents post-dispense dripping of low-viscosity fluids and potential oozing of higher-viscosity creams.

Auto-cycling operates by sequencing a self-taught cycle of events including a dispense time together with a wait or pause condition between the cycles. This feature enables the SL101 to be used as a stand-alone, semi-automated dispensing system. Alternatively the SL101 can be controlled remotely or integrated with any I&J series robot dispensing from syringes or controlling a pneumatically actuated I&J valve.

Peristaltic Dispensing Options

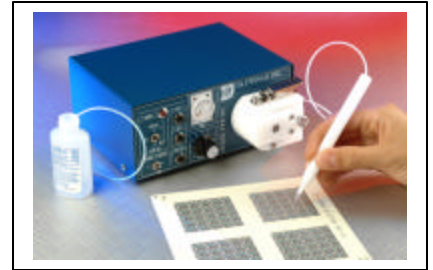
These types of air-free dispensers are sometimes also referred to as “tube dispensers”. Peristaltic dispensers extract material directly from a container via pressure displacement applied by a turning rotor against a Teflon tube carrying a fluid. These peristaltic dispensers avoid spillage and waste of material.

Peristaltic dispensers are particularly useful in dispensing small shots of low-viscosity cyanoacrylates and volatile fluids. Peristaltic dispensers are not suitable for dispensing large amounts of material such as in filling or potting.

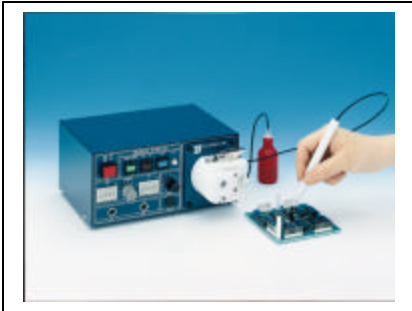
PPD-119 Peristaltic Pump

The model PPD-119 peristaltic pump will dispense a shot size greater than 0.0006cc and material viscosities less than 10,000 cps.

The rotor speed is variable up to 50 rpm. A reverse action will return any tube contents to the container after dispensing.



PPD-120 Peristaltic Pump



The model PPD-120 peristaltic dispenser will dispense a shot size greater than 0.0006cc and material viscosities less than 10,000 cps.

It has a faster rotor speed than the PPD-119 (variable up to 120 rpm) and includes a suck-back reverse action feature, useful in preventing dripping. A reverse action will return any tube contents to the container after dispensing.

PPD-130 Peristaltic Pump

The model PPD-130 air-free dispenser is the latest dispenser in the peristaltic dispenser range. Dispense outputs can be timed from 0.01 – 99.99 seconds with flow speeds from 0.01 – 6ml/minute. As with the PPD-120, its rotor speed has a maximum rotation of 120 rpm.

The peristaltic pump is bi-directional allowing snuff-back and will return fluid to its original container after dispensing.



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