

SNaP™

*Servo NanoPump
Piston Positive Displacement Pump
for Digital Dispensing*

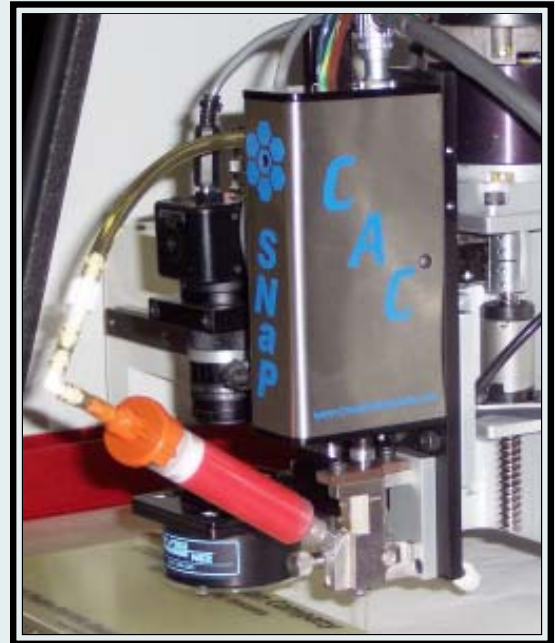
Digital Dispensing™

Digital Dispensing™ is a revolutionary new approach to industrial fluid dispensing. Simple and complex fluid structures (including dots, beads, dams, fills, encapsulation and underfill) are constructed pixel by pixel. A True Volume pump assembly (a Creative Automation Patented Technology) meters out a discrete increment of material to create a volumetrically precise fluid pixel – and will repeat that precise metering action at rates up to 100 times per second.

The True Volume™ pump assembly is a Piston Positive Displacement Pump that achieves the most accurate and repeatable volume control available in the fluid dispensing industry. True Volume Pumps maintain accuracy in the most demanding circumstances. Changes in temperature, viscosity or deposit size will not impact the accuracy or speed of the True Volume pump.

True Volume™ technology employs a piston that moves within the dispensing chamber to deliver an exact amount of fluid through the tip. The True Volume Pump delivers true piston positive displacement dispensing, with no delay for refill and with unrivaled accuracy.

Material is held in a syringe or reservoir and transferred under low pressure (2 – 15 psi) to a pumping chamber. The material is then dispensed under high pressure through precision tips, by the stroke of the piston. The high-pressure internal pump action ensures fast, accurate, homogeneous dispensing. The True Volume Pump is unaffected by changes in viscosity and allows dispensing of materials up to 3,000,000 cps.



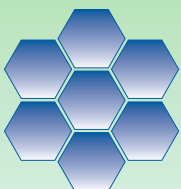
The heart of SNaP™ is the precision machined piston and chamber of the Patented True Volume Pump. An electromagnetic actuator controls each stroke of the piston within the chamber with a self calibrating, continuously monitored position sensor for closed loop control of volume. Pixel volume can be controlled in real time by the operating software. Mechanical adjustment is not required. Every pixel can be programmed to be a different volume, at speeds up to 100 pixels per second.

Pixel size can be accurately controlled down to volumes less than one nanoliter. One nanoliter of material produces a dot approximately 0.005 inches in diameter (125 µm).

SNaP allows control of variables out of reach to other dispensing tools. Piston Stroke Control (up/down) maximizes dispense speed while programmatically controlling pixel size. Pixel size may be varied up to 100 times per second to allow for complete control of pixel density within a dot, bead or fill. This feature, creating a variable cross section bead, is very useful for minimizing underfill flow-out times while ensuring proper coverage.

SNaP - the new solution to fluid dispensing. Achieves pixel and dot sizes smaller than any existing pump. Meets all your challenges and requirements for volumetrically accurate, high speed, true positive displacement dispensing.

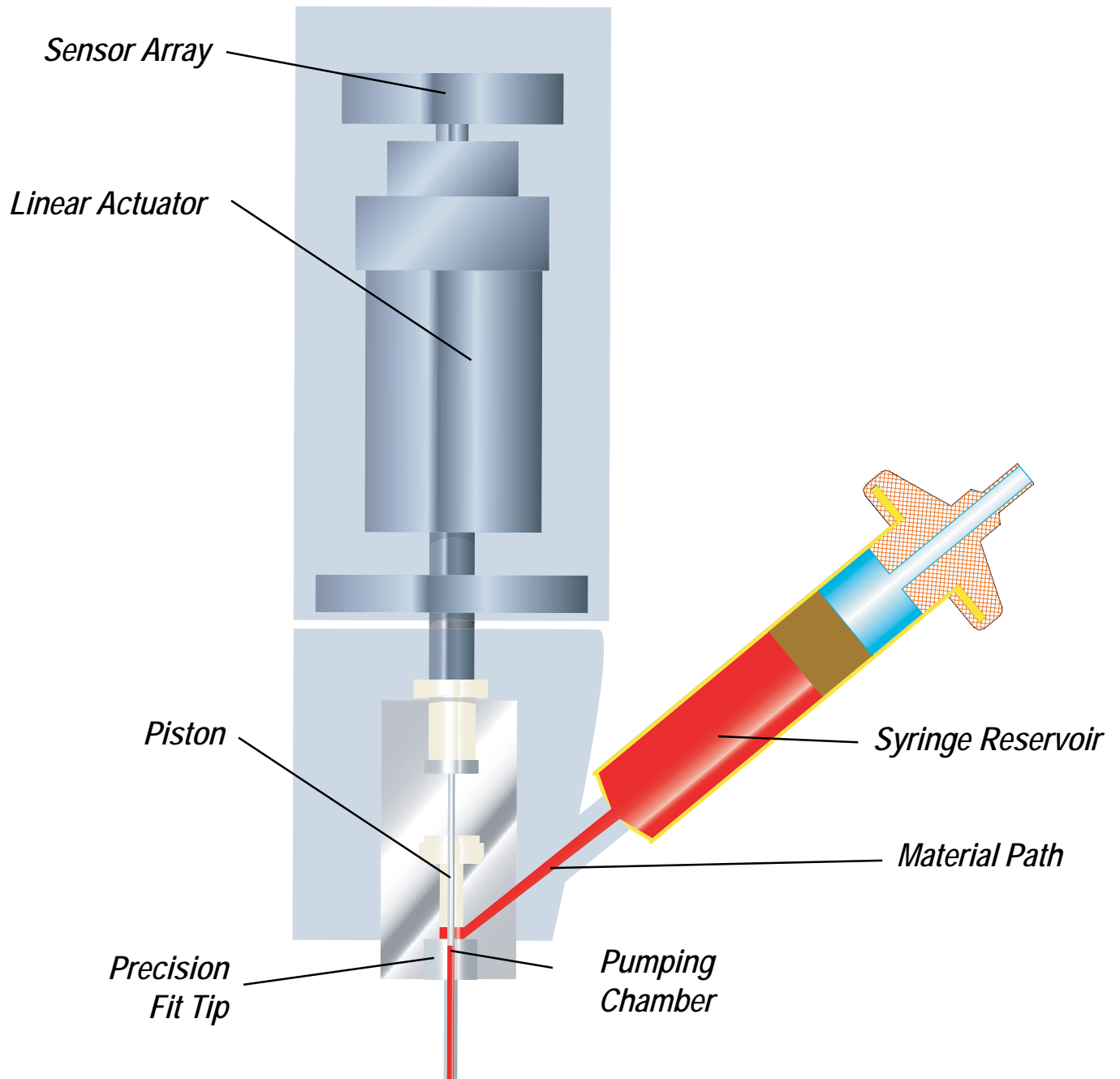
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Innovative Solutions Since 1968

For over 35 years, Creative Automation Company has provided customers with automated manufacturing solutions. We have set the industry standard in dispensing with over 19 patents, developing innovative concepts based on proven, leading edge technologies.

Call 800-688-6220

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