

# Motion Control Dispense Systems

## Dispense Stations

When a circular dispense pattern or an advancing dispense valve is required, Loctite® brand motion control systems offer robust performance at a lower cost than robotic dispense stations. They are simple to set up and operate and their rugged construction makes them well suited for harsh manufacturing environments.



	Loctite® Advancing Slide Dispense Station	Loctite® Single Rotary Dispense Station	Loctite® Dual Rotary Dispense Station
<b>Item #</b>	98426	98427	98428
<b>Dispense Pattern</b>	Dots or Potting	Circles, Arcs and/or Dots in a Circular Pattern	Circles, Arcs and/or Dots in a Circular Pattern
<b>Number of Dispense Points</b>	1	1	2
<b>Minimum Dispense Time</b>	0.1 sec	0.01 sec	0.01 sec
<b>Adjustable Valve Angle</b>	Yes	Yes	Yes
<b>Slide Stroke</b>	0-2"	0-2"	0-2"
<b>Fluid Pressure Regulation</b>	0-90 psi	0-90 psi	0-90 psi
<b>Maximum Part Size<sup>1</sup></b>	N/A	8.5" Diameter	4" Diameter at 90° 6" Diameter at 45°
<b>Maximum Part Height<sup>1</sup></b>	12"	12"	8"
<b>Weight Capacity<sup>2</sup></b>	N/A	30 lbs.	30 lbs.
<b>Rotating Speed</b>	N/A	0.1-100 RPM	0.1-100 RPM
<b>Programming</b>	4 Adjustable Range Analog Timers	Multi-line Digital Control Panel With User Friendly Prompts	Multi-line Digital Control Panel With User Friendly Prompts
<b>Program Capacity</b>	N/A	10 Programs, 20 Events per Program	10 Programs, 20 Events per Program
<b>Dimensions</b>	Width	12"	14"
	Depth	12"	10"
	Height	21"	22"
<b>Weight</b>	25 lbs.	26 lbs.	25 lbs.
<b>Power Source</b>	110 or 220 VAC/50-60 Hz	110 or 220 VAC/50-60 Hz	110 or 220 VAC/50-60 Hz

1 – The maximum part sizes are estimates and can vary depending on the specific part configuration and the size of the dispense syringe, cartridge or valve used.

2 – The weight capacity of the rotary station can vary depending on the center of gravity of the part and the program's rotating speed and acceleration. 30 lb was provided as a general indicator of the motor's capacity. At weights in this range the equipment should be evaluated to confirm performance.

## Loctite® Advancing Slide Dispense Station, Item 98426

The Loctite® Advancing Slide Dispense Station is used for repetitive dispensing or potting operations that require motion in the z-axis. It is a fully integrated system that will control any Loctite® brand syringe, cartridge or dispense valve; no separate dispense controller is required. The rugged all metal construction is designed for harsh manufacturing environments.

### Features

- Integrated solution - plug and play
- Compact size
- Precision timers with accuracy to 0.1 second
- Robust slide design
- Stroke adjustment 0 to 2"
- Adjustable height, position and angle of dispense point
- Sturdy work surface with 4 mounting holes for part fixturing
- Rugged all metal enclosure
- Vacuum suck-back to eliminate drips when syringe dispensing
- Auto repeat mode cycles unit continuously without foot switch
- Wide variety of mounting hardware available

### Installation Overview

A mounting bracket must be purchased separately to hold the syringe, cartridge, or valve. The mounting bracket simply slides over the 3/4" mounting rail that is attached to the bottom of the slide and is secured using a nylon screw. Once the dispenser is attached, the pneumatic dispense controls are pressed into the clearly labeled connections. The pneumatic dispense control fittings are 1/4" female NPT fittings and the most commonly required fittings to integrate a syringe, cartridge or valve are supplied.

The height, position and angle of the dispense point can easily be adjusted using the stand clamps. The stand clamps are specifically designed to adjust effortlessly yet consistently hold their position during operation.

The dispensing process is controlled using five variables that are easy to adjust, set, and monitor. All timers have adjustable ranges that yield good precision over a very wide range.

Variable	Range
Dispense pressure	0-90 psi
Delay time before dispense	0.1 sec to 500 hours
Dispense time	0.1 sec to 500 hours
Slide down time	0.1 sec to 500 hours
Auto cycle time	0.1 sec to 500 hours

### List of Loctite® Brand Parts Supplied

- (1) Advancing Slide Dispense Station
- (1) Foot Switch
- (1) Power Cord
- (1) Fitting Kit for Dispenser Connection
- (1) Manual

### Must Be Purchased Separately

- Dispense valve, syringe adapter, or cartridge adapter
- Mounting bracket
- Dispense needles
- Fixture to locate part(s)
- Tubing for connecting valve(s) and air in



### Technical Specifications

Attribute		Value
Dispense pattern		Dots or potting
Number of dispense points		1
Slide stroke		0-2"
Maximum part height		12"
Dimensions	Width	12"
	Depth	12"
	Height	21"
Weight		25 lbs.
Vacuum range		1-15 inches Hg
Air input		Clean, dry air not to exceed 125 psig and filtered with a maximum of 50 micron
Air output		0-100 psi
Power source		110 or 220 VAC 50-60 Hz

### Additional Information

For Valve Dispensing, see pages 43-51.  
 For Syringe or Cartridge Dispensing, see pages 8 and 20.  
 For Mounting Hardware, see page 69.  
 For Dispensing Tips, see page 54.

# Loctite® Rotary Dispense Stations, Items 98427, 98428

The Loctite® Rotary Dispense Stations are used to dispense circular patterns. They are available with one or two dispense points and can be programmed to dispense full circles, arcs and/or dots. They are fully integrated systems that will control any Loctite® brand syringe, cartridge or dispense valve; no separate dispense controller is required. The height, position and angle of the dispense point for the 98427 single rotary dispense station can be adjusted using the stand clamps. For the 98428 dual rotary dispense station, the slide stand can be adjusted from 0-90 degree, the dispense points can be positioned anywhere on the 12" mounting rail and the angle of the dispense points can be rotated freely. The rugged all metal construction is designed for harsh manufacturing environments.

## Features

- Integrated solution - plug and play
- Compact size
- Easy to program with menu driven prompts
- Robust slide design
- Stroke adjustment 0 to 2"
- Adjustable height, position and angle of dispense point
- Rugged all metal enclosure
- Vacuum suck-back to eliminate drips when syringe dispensing
- Auto repeat mode cycles unit continuously without foot switch
- Wide variety of mounting hardware available

## Programming

Simple to program using a multi-line backlit user interface panel with user friendly prompts. It is possible to enter 10 programs consisting of full circles, dots and/or arcs. Each of these dispense patterns is considered an "event" and there can be twenty events per program. For each event, the user specifies the start and end coordinates in degrees (determined in set up mode), the rotating speed, the delay after the slide advances but before dispensing starts, and the delay after dispensing before retracting the slide. Programs can be initiated using either a foot switch or the start button. When this occurs, a complete program cycle is executed. The table rotates using a stepper motor that allows the location to be specified within 0.1 degree.



## List of Loctite® Brand Parts Supplied

- (1) Rotary Dispense Station
- (1) Foot Switch
- (1) Power Cord
- (1) Fitting Kit for Dispenser Connection
- (1) Manual

## Must Be Purchased Separately

- Dispense valve(s), syringe adapter(s) or cartridge adapter(s)
- Mounting bracket(s)
- Dispense needles
- Fixture to locate part(s)
- Tubing for connecting valve(s) and air in

## Additional Information

For Valve Dispensing, see pages 43-51.  
 For Syringe or Cartridge Dispensing, see pages 8 and 20.  
 For Mounting Hardware, see page 69.  
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Single Dispense Station,  
Item # 98427



Dual Dispense Station,  
90° Set Up  
Item # 98428



Dual Dispense Station,  
45° Set Up  
Item # 98428

## Technical Specifications

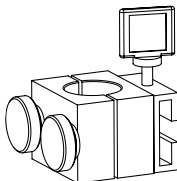
Attribute		Single Station	Dual Station
Item #		98427	98428
Number of dispense points		1	2
Rotating speed		0.1 to 100 RPM	0.1 to 100 RPM
Slide stroke		0-2"	0-2"
Maximum part diameter		8.5"	4" at 90°
Maximum part height		12"	8" at 90°
Program capacity		10	10
Dimensions	Width	14"	14"
	Depth	10"	10"
	Height	22"	21"
Air input		Clean, dry air not to exceed 125 psig and filtered with a maximum of 50 micron	Clean, dry air not to exceed 125 psig and filtered with a maximum of 50 micron
Air output		0-100 psi	0-100 psi
Weight		26 lbs.	25 lbs.
Power source		110 or 220 VAC 50-60 Hz	110 or 220 VAC 50-60 Hz

# Loctite® Brand Mounting Hardware

## Mounting Bracket Kits

Mounting bracket kits are used to grasp syringe barrels, 300 ml cartridges, or dispense valves. Mounting rails or adapters are required to mount the brackets on the robot or dispense station.

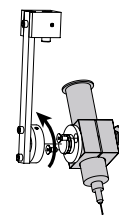
Item #	Description
98316	30 ml syringe mounting bracket kit
98318	300 ml cartridge mounting bracket kit
98326	98009 and 98013 valve mounting bracket kit
98327	97113 and 97114 valve mounting bracket kit
98406	983914 poppet valve mounting bracket kit



## Mounting Adapter for All 4 Axis Robots

A mounting adapter is required when using Loctite® brand mounting hardware for all 4 axis robots. The mounting adapter includes a 360 degree rotation kit which allows the dispense tip to be fixed at any angle.

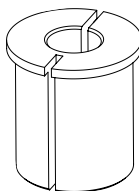
Item #	Description
98336	Mounting adapter for 4 axis robots



## 3, 5 and 10 ml Syringe Adapters

These adapters are inserted into the 30 ml syringe mounting bracket kit to adapt it for 3, 5 and 10 ml syringes. The 30 ml syringe mounting bracket, Part No. 98316, must be purchased separately.

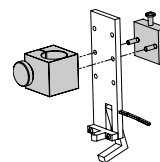
Item #	Description
98320	10 ml adapter for use with 98316
98321	5 ml adapter for use with 98316
98322	3 ml adapter for use with 98316



## Tip Locator Brackets

Tip locator brackets position the dispense tip to increase precision and are used to mechanically set the tip height during installation. **A mounting bracket and rail, plate, or adapter must be purchased separately. These are sized for 1", 25 gauge stainless steel needles and must be modified by the user for larger gauge sizes.**

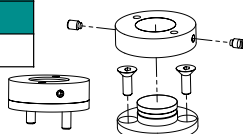
Item #	Description
98332	Tip locator bracket for 30 ml syringes
98333	Tip locator bracket for 300 ml cartridges
98334	Tip locator bracket for 98009 and 98013 valves
98335	Tip locator bracket for 97113 and 97114 valves
98407	Tip locator bracket for 983914 poppet valve



## 360 Degree Rotation Kit

This is used to allow for 360 degrees of rotation when using a mounting bracket kit or tip locator. A 360 degree rotation kit is already included with the mounting adapter for 4 axis robots.

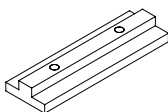
Item #	Description
98325	360 degree rotation kit



## Mounting Rails for 3 Axis Benchtop Robots and Dispense Stations

A mounting rail is required when using Loctite® brand mounting hardware for all 3 axis Benchtop Robots and Dispense Stations.

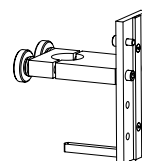
Item #	Description
98328	3¾ inch bar with two cap screws
98329	8¾ inch bar with two cap screws
98330	12 inch bar with two cap screws



## Complete Mounting Kits for 3 Axis SCARA Robots

Complete mounting adapter kits hold the syringe, cartridge, or valve and position the dispense tip 60 mm from the end of the tool arm. **No other items are required for mounting when using a complete mounting kit. These are sized for 25 gauge needles and must be modified by the user for larger gauge sizes.**

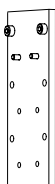
Item #	Description
98340	30 ml syringe holder
98341	300 ml cartridge holder
98342	98009 and 98013 valve holder
98343	97113 and 97114 valve holder
98408	983914 poppet valve holder



## Z Height Adjustment Plate for 3 Axis Benchtop Robots

This plate allows you attach the mounting rails above or below the mounting bracket on the robot.

Item #	Description
98357	Z height adjustment plate



## Mounting Plate for 3 Axis SCARA Robots

A mounting plate is required when using Loctite® brand mounting hardware for all 3 axis SCARA Robots (except when using a complete mounting kit).

Item #	Description
98337	Mounting plate for SCARA robot



## Enclosures

Enclosures are available upon request. They can include mechanical interlocking, two-hand anti-tie-down switches or light curtains. For more information, please call Henkel Equipment Customer Service at **860-571-5174**.

