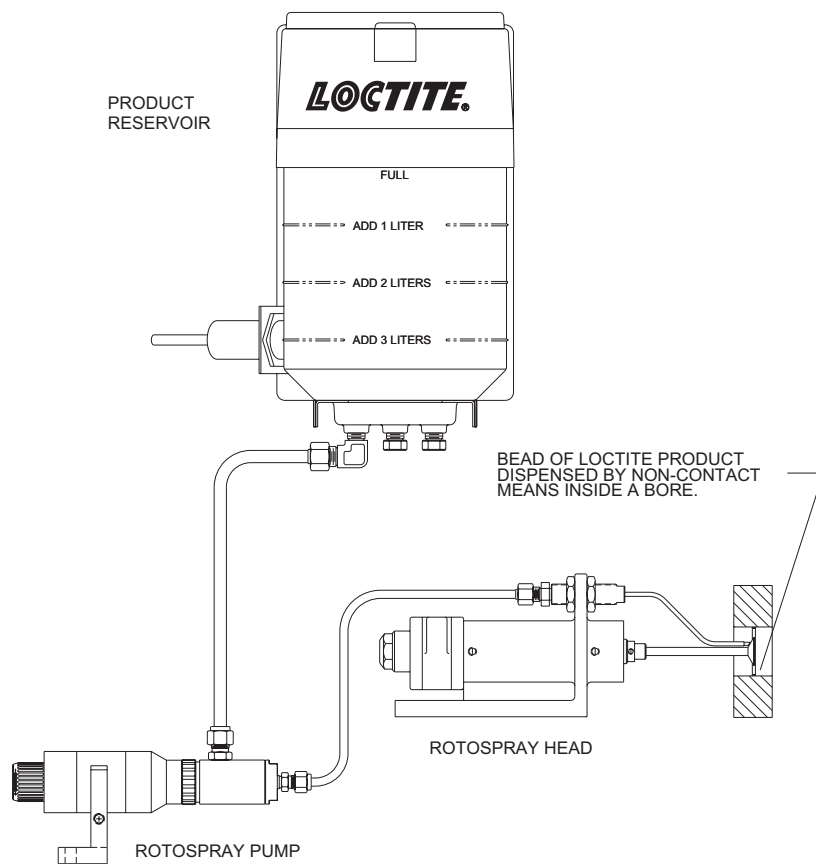




LOCTITE[®]

EQUIPMENT

OPERATION MANUAL



Loctite[®] Series 9000 Rotospray System

Pump 983330

Reservoir 982880

Head 983600-983621

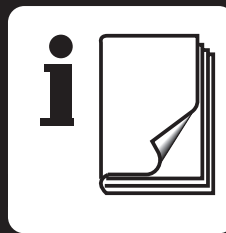


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Warnings and Precautions

- **OBSERVE ALL WARNINGS. READ and UNDERSTAND** all instructions in the manual before attempting to install and operate this equipment.
- This equipment has been designed and tested for use with Loctite® anaerobic products.
- **DO NOT USE** equipment for other than intended use.
- **BE SURE** that all adhesives, solvents, or fluids used are chemically compatible with the wetted parts of the equipment.
- **ALWAYS READ** the Material Safety Data Sheet(s) before using adhesives, solvents, or any other chemicals in this equipment. **COMPLY with ALL WARNINGS and SAFETY INSTRUCTIONS AS STATED.**
- **ALWAYS WEAR** protective eyewear, gloves, clothing, and respirator as recommended in this manual or the Material Safety Data Sheet(s).
- Any misuse of the equipment or accessories, such as over-pressurizing, modifying parts, using incompatible chemicals, adhesives, or worn, damaged or not recommended parts, can cause rupture or breakage and result in fluid injection, splashing in the eyes or on the skin, or other serious injury or property damage.
- **NEVER** alter or modify any part of this equipment. Doing so could result in a malfunction and will void your warranty.
- **CHECK** the equipment regularly and repair or replace worn or damaged parts immediately.
- **NEVER** exceed the recommended working pressure or the maximum air inlet pressure stated on the equipment or in the manual.
- Properly ground all electrical components as recommended in the manual or technical data.
- Always **KEEP HANDS and FINGERS** away from moving parts to reduce the risk of injury.
- **ALWAYS RELIEVE** any pressure and turn off all power sources when checking or servicing any part of the equipment to reduce the risk of serious injury.
- **RETAIN THIS MANUAL FOR FUTURE REFERENCE.**

This manual covers the Loctite® Series 9000 Rotospray System.

Manual part no. 983355 has detailed information on the Loctite® Rotospray Pump.

Manual part no. 982894 has detailed information on the Loctite® Rotospray Reservoir.

The Loctite Series 9000 Rotospray System consists of the following components:

1. A Rotospray Centrifugal Force Dispense Head.
2. The Loctite Rotospray Pump.
3. The Loctite Rotospray Reservoir.

Various spinner diameters and types are available. Table 1 on page 4 has a tabulated list of Rotospray Heads and spinner types and diameters. See Spinner Information on page 8 for spinner type descriptions.

Customer-supplied, electro-pneumatic or pneumatic controls operate the system. See page 9 for control system requirements.

The Rotospray Head can be mounted horizontally or with the spinner vertically down depending on spinner type.

The Loctite Series 9000 Rotospray System is designed to dispense anaerobic materials with viscosity <100,000 centipoise that can be gravity fed to the pump. The pump displacement range is 0.02 cc to 0.45 cc.

Typical Loctite Products are:

Loctite product 271™, 277, 620, 635, 640, 11264, 11358, 11747, and 12019.

The Loctite Series 9000 Rotospray System is a non-contact dispensing unit. The system uses a positive displacement pump and centrifugal force to apply a bead of Loctite adhesive or sealant into component bores or holes. Briefly, the system works like this:

1. The Loctite Rotospray Pump meters the Loctite Product onto a rotating disk near the center of the disk.
2. Centrifugal force spreads the Loctite Product across the disk surface in an even film.
3. When the Loctite Product reaches the edge of the disk, centrifugal force spins the film across the gap between the spinner OD and the hole ID.
4. The Loctite Product is applied as a bead or ring of Loctite Product to the ID of the hole.

(See Theory of Operation section on page 6 for more details.)

The centrifugal force feature allows a successful application into a hole that is slightly out of round, has machining chatter marks, is in an as cast condition, or has other internal features. Because this is a non-contact dispensing system, there is clearance between the spinner OD and hole ID. This feature allows a successful application even if the spinner is not in the exact center of the hole.

Items Supplied

Note that the Rotospray Head, the Rotospray Pump, and the Rotospray Reservoir must be ordered as separate line items.

A Loctite Series 9000 Rotospray System consists of the following components:

1. Qty (1) Rotospray Head from Table 1 below.

Table 1			
Listing of Rotospray Head Part No., Spinner Type and Spinner Diameter			
Item	Rotospray Head Part No.	Spinner Type	Spinner Diameter
1	983600	Horizontal	0.375
2	983601	Horizontal	0.437
3	983602	Horizontal	0.500
4	983603	Horizontal	0.625
5	983604	Horizontal	0.750
6	983605	Horizontal	0.875
7	983606	Horizontal	1.000
8	983607	Horizontal	1.250
9	983608	Horizontal	1.500
10	983609	Horizontal	1.750
11	983610	Horizontal	2.000
12	983611	Vertical Down	0.375
13	983612	Vertical Down	0.437
14	983613	Vertical Down	0.500
15	983614	Vertical Down	0.625
16	983615	Vertical Down	0.750
17	983616	Vertical Down	0.875
18	983617	Vertical Down	1.000
19	983618	Vertical Down	1.250
20	983619	Vertical Down	1.500
21	983620	Vertical Down	1.750
22	983621	Vertical Down	2.000

Qty. (1) Rotospray Head includes:

Qty. (1) Packaging and Inserts.

Qty. (1) Loctite Rotospray Head with air motor, spindle, spinner, and feed tube.

Qty. (1) Air Line Kit.

Qty. (1) Instruction manual 984518.

Items Supplied, cont.

2. Qty (1) Part No. 983330 Loctite Series 9000 Rotospray Pump that includes:
 - Qty. (1) Packaging and Inserts.
 - Qty. (1) Loctite Rotospray Pump consisting of pump section and actuator section.
 - Qty. (1) Mounting Bracket (983335).
 - Qty. (1) Feedline Accessory Kit (983356).
 - Qty. (1) Air Line Kit (983482).
 - Qty. (1) Instruction Manual (983355).

3. Qty (1) Part No. 982880 Rotospray Reservoir that includes:
 - Qty. (1) Packaging and Inserts.
 - Qty. (1) Reservoir.
 - Qty. (1) Wall Mounting Bracket.
 - Qty. (1) Reservoir Casement.
 - Qty. (1) Sensor Mounting Bracket.
 - Qty. (1) Parts Kit:
 - (3) Reservoir outlet plugs.
 - (4) Male elbows.
 - (1) Tube Loctite® product PST®.
 - Qty. (1) Instruction Manual (982894).

The Loctite Series 9000 Rotospray System operates as follows:

Refer to the Fig.1 on page 7.

- A customer-supplied slide positions the Rotospray Head and spinner disk inside the bore to be treated.
- Gravity feeds the Loctite Product from the Reservoir into the pump and the Pump has been cycled a sufficient number of times to fill the tubing between the pump and the Rotospray Head with Loctite Product.
- The Air motor starts, rotating the spinner.
- The Pump cycles, dispensing a metered amount of Loctite Product onto the rotating spinner disk.
- Centrifugal force moves the product across the disk surface until it reaches the edge of the disk.
- At the edge of the disk, centrifugal force spins the product across the gap between the edge of the disk and the ID of the part.
- The Loctite Product is applied as a ring or bead within the part bore.
- The air motor stops and the spinner stops rotating.
- The pump piston retracts.
- The customer-supplied slide returns the Rotospray Head and spinner disk to the home position.

The Loctite Series 9000 Rotospray Pump is a pneumatically-operated piston pump. Adjusting the piston stroke controls the amount of product dispensed. The amount can be adjusted between 0.02 cc to 0.45 cc per stroke.

See Loctite Manual 983355 for both a more detailed description of the Series 9000 Pump and an illustrated sequence of pump operation.

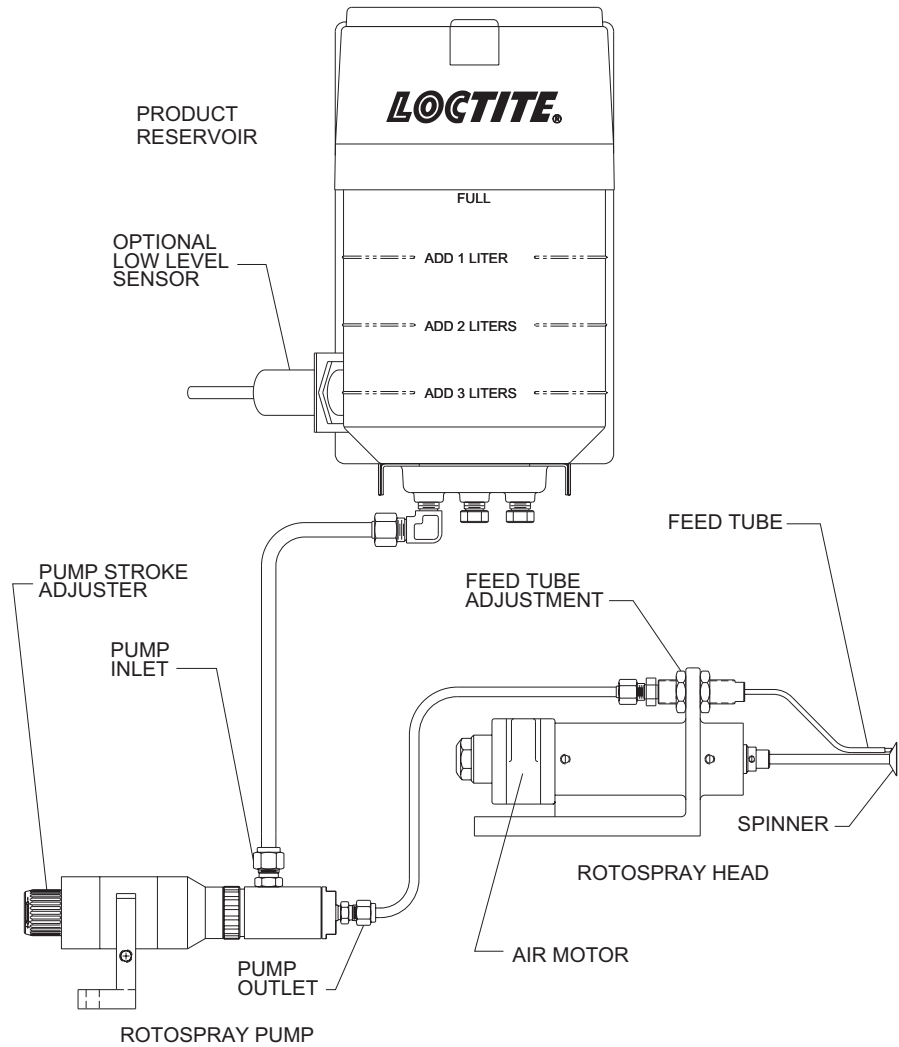


Fig. 1
View of Rotospray System with Components Labeled.

The two basic spinner types available are illustrated below in Fig. 2.

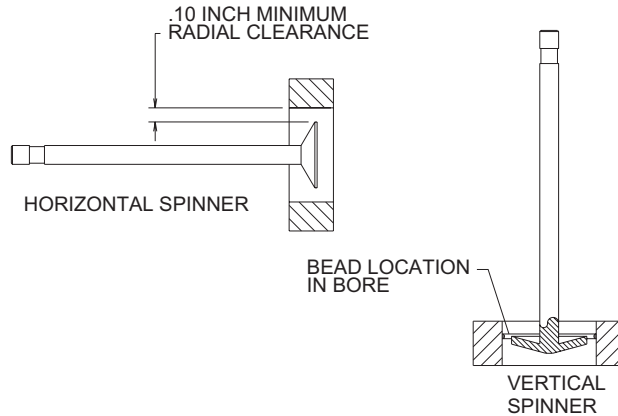


Fig 2.
Spinner Types

For the Series 9000 Rotospray System to operate successfully there must be a 0.10 inch (2.5 mm) radial clearance between the spinner OD and hole ID. This clearance is important with the smaller spinner diameters. If the clearance is too small, the Loctite Product will not separate from the spinner edge but rather bridge the gap between the spinner OD and hole ID and result in an unsatisfactory dispense. The Series 9000 Rotospray System with the smallest stock spinner of 0.375 inch diameter can be used to successfully dispense into a 9/16-inch (0.563 inch) (14.3 mm) minimum hole diameter.

If the clearance between the spinner OD and hole ID is too great, the bead will not be well defined, i.e. a disconnected series of dots. Typically, the largest stock spinner of 2.00 inch diameter will successfully dispense into a 5.0 inch (125 mm) diameter hole. Multiple strokes of the Series 9000 Pump may be needed to deliver enough product.

See the Spare Parts Listing on pages 24 and 25 for a complete list of stock spinner sizes.

If a specific hole is outside the above ranges contact your Loctite Representative. Many Special Rotospray Systems have been built to dispense into holes both larger and smaller than the above limits.

The controls shall include components to accomplish the following:

1. Start Dispense Cycle with part present and slide forward.
2. Energize two 4-way solenoid valves for timed intervals.
3. Generate a “dispense complete” signal.
4. Interlock with both manual and automatic machine modes.

The sequence of operation is as follows:

1. Part present and slide forward will indicate “time zero” for the dispense cycle.
2. At “time zero” energize solenoid #1 to start air motor. This starts the spinner rotating.
3. At time 0.5 seconds (this to allow air motor to reach full speed) energize solenoid #2, advancing pump piston. This will cause Loctite Product to be dispensed onto the rotating spinner.
4. At time 1.5 seconds de-energize solenoid #2, retracting pump piston.
5. At time 2.5 seconds de-energize solenoid #1, stopping the spinner rotation.
6. At time 3.0 seconds (this allows the air motor and spinner to come to a complete stop), generate a “dispense complete” signal. The slide can now retract.

See the “Utilities Required “ section on page 27 for pneumatic valve flow requirements.

Inspection before installation:

The Loctite Rotospray System was inspected before shipment. Check the items in the shipping container against the Packing List. After removing the items from the shipping container(s), inspect them for visible damage. Promptly report any damaged or missing parts to both the shipper and your Loctite representative.

CAUTION: DO NOT REMOVE ANY ITEMS THAT ARE SEALED IN PLASTIC BAGS UNTIL THEY ARE TO BE USED AS THEY MAY BECOME CONTAMINATED RESULTING IN PERFORMANCE PROBLEMS.

Installation

See figures 4, 5, 6 on pages 13, 14, 15 for mounting dimensions of reservoir, pump, and roto spray head.

Reservoir

Locate the reservoir so that:

1. The reservoir outlet is at least 12 inches (300 mm) above the pump inlet.
2. The pump is within range of the reservoir outlet tubing.

Attach the Reservoir Bracket to a suitable surface using 1/4-inch diameter or 6 mm diameter screws. The hole pattern is shown in Fig. 4 on page 13.

Pump

Locate the pump so that:

1. The pump axis is horizontal.
2. The pump is at least 12 inches (300 mm) below the outlet of the gravity feed reservoir.
3. The pump is at approximately 4 inches (100 mm) below the center line of the Rotospray centrifugal force dispensing head.
4. There is enough clearance to allow easy access to the outlet fitting.
5. There is enough clearance to allow easy access to the control air fittings.
6. The Rotospray centrifugal force dispensing head is within the range of the pump outlet tubing.

Secure the Pump Mounting Bracket (Part no. 983335) to the mounting surface with 5/16-inch diameter or 8 mm diameter screws. The hole pattern is given in Fig. 5 on page 14.

Install the pump assembly into the Mounting Bracket.

Rotospray Head

Attach the Rotospray Head to the slide or other mounting detail using 1/4-inch diameter or 6 mm diameter screws. The hole pattern is shown in Fig. 6 on page 15.

Installation, cont.

Connecting Air and Product Lines:

1. Reservoir

- 1.1. Install the fittings and plugs as required by the specific application.
- 1.2. Apply Loctite® 565 PST® to the threads of the fittings or plugs as follows:
The first (3±1) fitting threads are left bare to allow easy starting into the reservoir outlet threads. The PST® is applied to the next (3±1) threads
- 1.3. Screw the fittings or plugs into the reservoir outlet threads and tighten to 20±2 inch pounds torque.
- 1.4. Insert the 3/8-inch OD tubing into the outlet fitting and tighten the fitting nut 2 to 2 1/2 turns past finger tight.
- 1.5. If the reservoir is supplied with the optional Low Level Sensor, install and adjust the sensor per the Loctite Reservoir Manual part no. 982894.

2. Pump

- 2.1. Install air line fittings into the 1/8 NPT ports in the pneumatic actuator and tighten to 60±10 inch pounds torque.
- 2.2. Connect air line from the normally not passing control valve port to the actuator port closest to the adjustment knob; (“Dispense” port on actuator).
- 2.3. Connect air line from the normally passing control valve port to the actuator port farthest from the adjustment knob; (“Retract” port on actuator).
- 2.4. Connect 3/8-inch OD tubing from the product reservoir to the pump inlet and tighten the fitting nut 2 to 2 1/2 turns past finger tight.
- 2.5. Connect 1/4-inch OD tubing from the pump outlet to the applicator being used.
Tighten both fitting nuts 2 to 2 1/2 turns past finger tight.

3. Rotospray Head

Note that the Air Inlet Fitting of the air motor is also a flow restrictor to limit air motor RPM. Do not operate the device without this fitting in place. Do not replace this fitting with anything other than the specified Loctite part number.

- 3.1. Connect the air line from the normally not passing port of the air motor control valve to the fitting installed at the “IN” (inlet) port on the air motor.
- 3.2. Connect the air line from the fitting installed at the “EXH” (exhaust) port on the air motor to a suitable silencer-reclassifier.
- 3.3. Connect the product tubing from the pump outlet to the feed tube connector on the roto-spray if not already done per Step 2.5 above.

Installation, cont.

Initial Feed Tube to Spinner Adjustment

The feed tube end on a new rotospray head is supplied cut to the correct angle and set at the correct clearance as shown in Fig. 3 below. If for some reason the feed tube end is out of adjustment, readjust per the following steps.

Feed Tube Liner Stickout

The plastic feed tube liner should extend approximately 0.19 inches beyond the end of the metal support tube.

Radial Adjustment

1. View the spinner from the air motor side.
2. Loosen the two feed tube adjustment nuts.
3. Rotate the feed tube to the between the 12:30 to 12 o'clock position.
4. Hand tighten the two feed tube adjustment nuts.

Axial Adjustment

Use the two adjustment nuts to move the feed tube axially to get the clearance as shown in Fig. 3 below. Measure the clearance with non-metallic shim stock. Do not use brass shim stock as traces of brass may cause anaerobic product curing. With the adjustment complete, tighten the nuts.

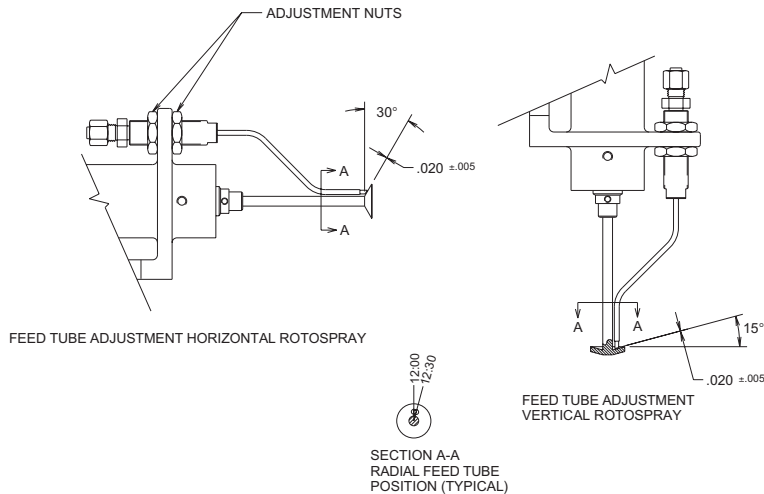
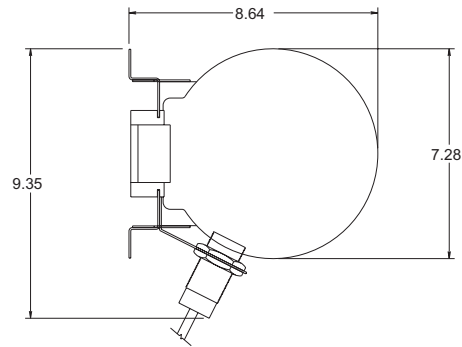
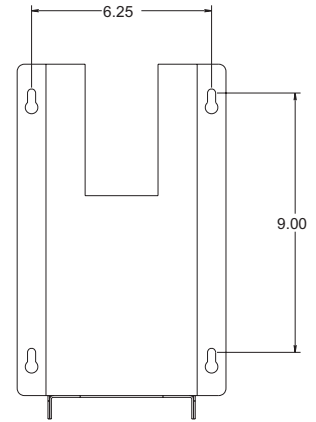


Fig. 3
Feed Tube Adjustment

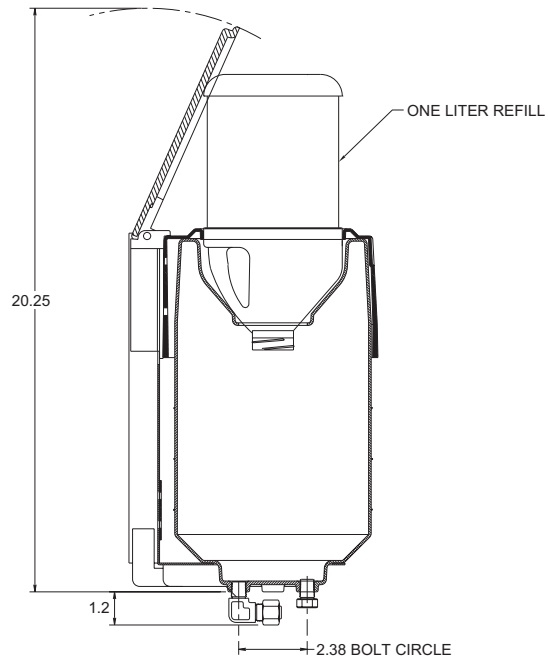
Installation, cont.



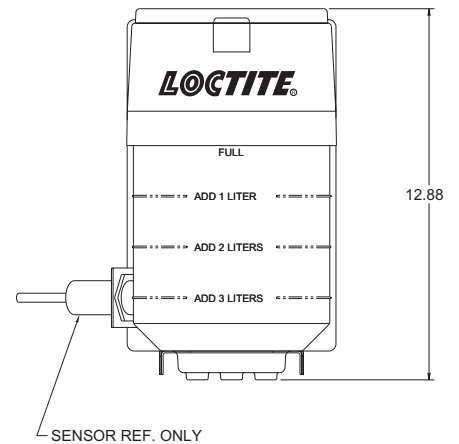
TOP VIEW



MOUNTING HOLE PATTERN
NOTE: MOUNTING SLOTS ARE CLEARANCE FOR
1/4-INCH OR 6 mm SOCKET HEAD CAP SCREWS



SECTIONAL VIEW



FRONT VIEW
(WITH LID CLOSED)

Fig. 4
Reservoir Mounting Dimensions.

Installation, cont.

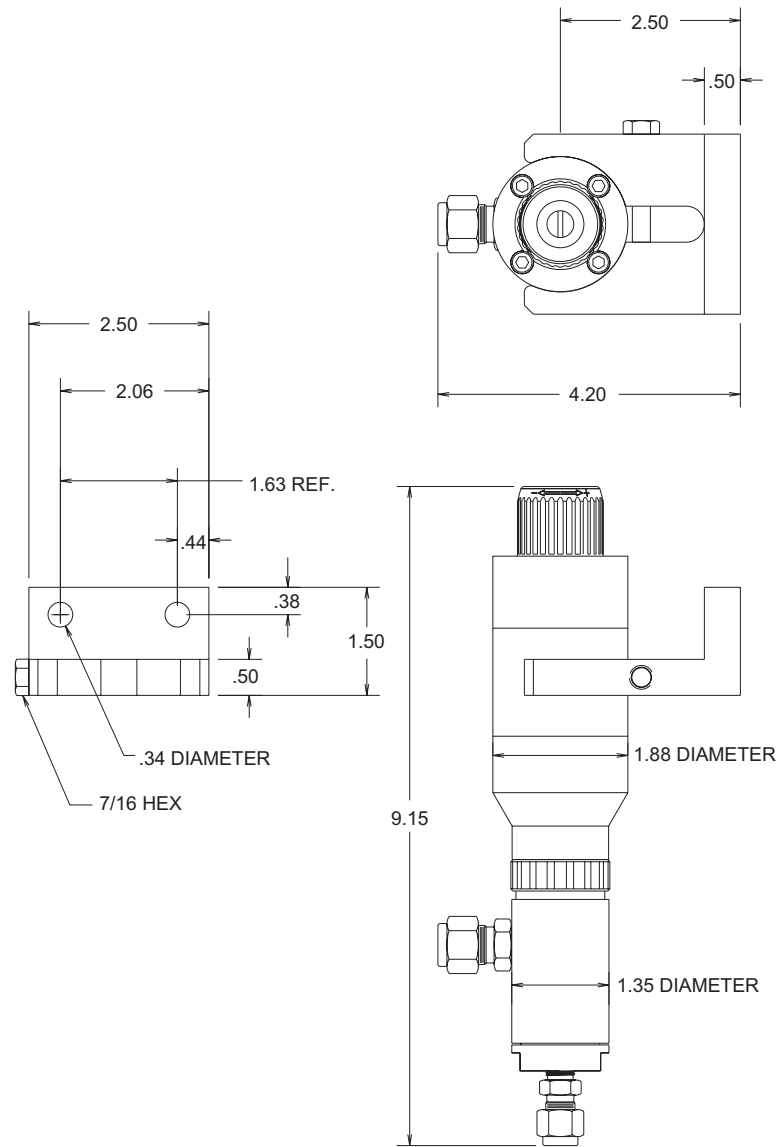


Fig. 5
Series 9000 Pump Mounting Dimensions.

Installation, cont.

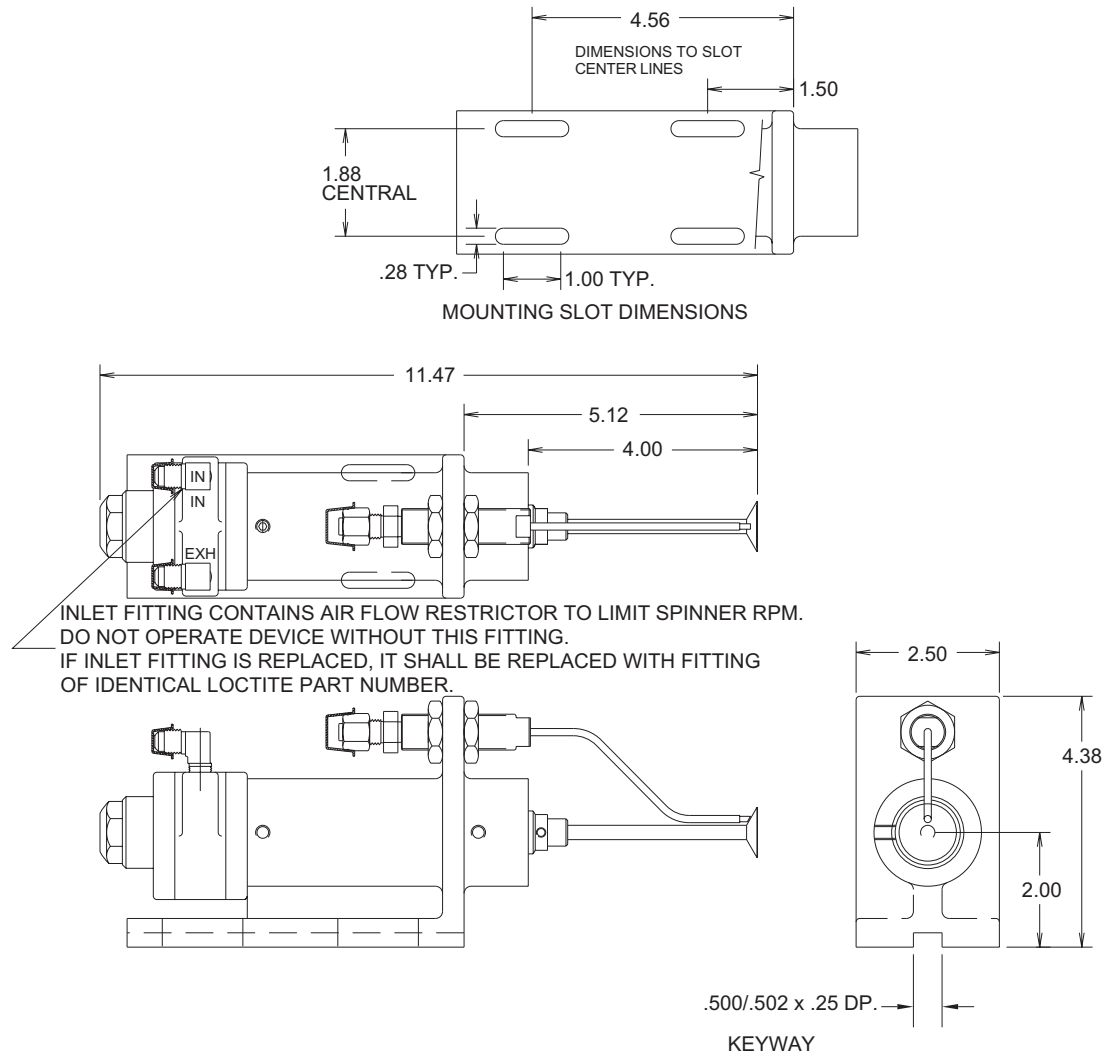


Fig. 6
Series 9000 Rotospray Head Mounting Dimensions.

Installation, cont.

Dispense location and spinner overhang

For all of the listed Rotospray Heads, the dispense location is four (4) inches from the front of the spindle housing.

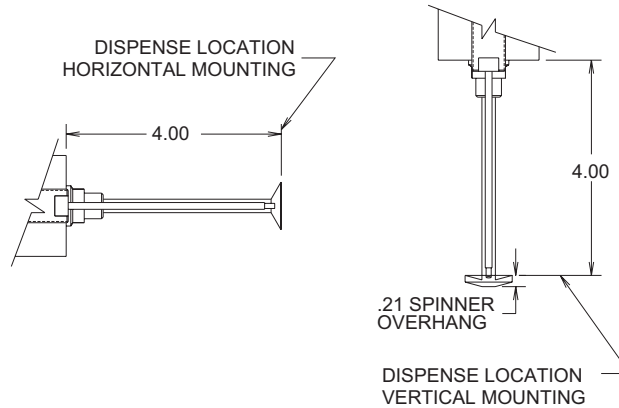


Fig. 7
Dispense Location and Spinner Overhang

The Dispense Location is four (4) inches from the front of the spindle housing for all the Rotospray Heads covered in this manual.

The Spinner Overhang for horizontal mounting units is 0.0 inch.

The Spinner Overhang for vertical down mounting varies with the spinner diameter per Table 2 (below).

Table 2 Listing of Rotosprays, Spinner Diameters & Spinner Overhangs		
Part No.	Spinner Dia. (in.)	Spinner Overhang (in.)
983611	.375	0.163
983612	.437	0.171
983613	.500	0.167
983614	.625	0.183
983615	.750	0.192
983616	.875	0.209
983617	1.000	0.225
983618	1.250	0.242
983619	1.500	0.276
983620	1.750	0.309
983621	2.000	0.343

Filling the Reservoir

1. Open the one liter bottle of Loctite Product.
2. Open the Reservoir Lid.
3. Pour the Loctite Product from the bottle into the Reservoir.
4. The bottle can be left in place above the Reservoir to drain into the reservoir. This empties the maximum amount of Loctite Product from the bottle.
5. The Reservoir capacity is four (4) liters.
6. When a bottle is removed from the filling position, the Reservoir lid will self-close by gravity. The lid prevents contaminants from falling into the Reservoir.

Priming the Pump (first time use)

1. Fill the reservoir with product.
2. Set the pump stroke to 3/4 of maximum.
3. Use the “Manual” control functions to retract the pump piston.
4. Disconnect the 3/8-inch OD tube from the pump inlet.
5. Let the product flow to within 1/2-inch of the end of the 3/8-inch tube, then reconnect the tube to the pump inlet.
6. Use the “Manual” control functions to cycle the pump.
7. Continue to cycle the pump until air-free product flows at the dispense point.

Adjusting the amount of Loctite Product dispensed

The stroke adjuster knob on the the pump controls the amount of product dispensed per pump cycle. Start with the knob open one turn counter clockwise from the “zero-stroke” position. Cycle the pump and measure the amount of product dispensed. Adjust the knob per Fig. 8 below until the desired amount is dispensed. The plus (+) and minus (-) arrows on the stroke adjuster knob indicate the volume increase and decrease directions.

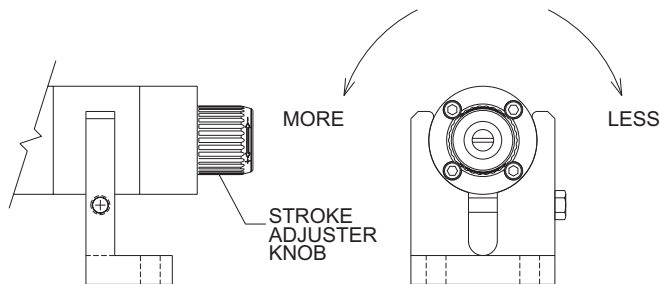


Fig. 8
Adjusting the Dispense Amount

Operation, cont.

Final Check

1. Position the spinner inside a part.
2. Cycle the Rotospray through one dispense cycle.
3. Adjust the Quantity of Loctite Product, if necessary.
4. Adjust the position of the dispensed bead, if necessary.
5. The system is ready for automatic operation.

Routine

1. Inspect air tubing, product tubing, and fittings for cracks, kinks or breaks and replace, as required.
2. Drain the air line filter bowl, if necessary.
3. Refill the air motor lubricator, as required.
4. Refill the Loctite Product Reservoir, as required.

Idle Time

1. If the system is in daily use, you do not need to service the pump, product tubing, or reservoir to prevent product curing unless a contaminant is introduced into the system.
2. The pump and tubing can be left idle for as long as one (1) month without curing under normal temperature (70° - 80°F).
3. If the system is to be idle for longer than one (1) month, both the pump, the product lines and the feed tube should be serviced. Remove and replace product the feed lines and the feed tube. Return the pump to a Loctite Service Center for cleaning and/or rebuilding. See the pump manual Loctite part no. 983355 for more information.
4. If the system is to be idle for longer than one (1) month, then the product reservoir, its fittings and feed lines should be replaced. See the reservoir manual Loctite part no. 982894 for more information.

Possible problems and solutions for the Series 9000 Rotospray Pump.

Troubleshooting Guide		
Problem	Cause	Solution
Pump does not dispense product and the Stroke Adjuster Knob does not move when the pump is cycled.	No air supply.	Turn on air supply.
	Low air pressure.	Adjust air pressure to at least 60 psig.
	Stroke Adjuster Knob set to zero stroke.	Reset Stroke Adjuster Knob.
	Pump air actuator defective.	Replace actuator.
	Control valve faulty.	Replace control valve.
	Control logic problem.	Check program and components.
Pump does not dispense product and the Stroke Adjuster Knob moves very slowly when the pump is cycled.	Cured product in pump.	Replace pump.
	Cured product in outlet tubing or applicator.	Replace tubing or applicator.
Pump does not dispense product but the Stroke Adjuster Knob moves normally when the pump is cycled.	Product reservoir empty. Pump is air bound.	Refill reservoir. Reprime pump and check pump inlet fittings.
	Cured product in inlet tubing or fittings.	Replace tubing or fittings.
	Pump check valve defective.	Replace pump.
Product leaks from dispenser.	Pump check valve defective.	Replace pump.
	Dispenser is located at a lower level than the pump.	Reposition pump so that it is about 4 inches (100 mm) below the dispenser.
	Air in product.	Do not shake product bottle before filling reservoir.
	Pump outlet tubing too long.	Mount pump as close as possible to dispenser.
	Pump outlet tubing expands on pump cycling.	Change original 1/4-inch OD polyethylene tubing to 1/4-inch OD nylon tubing. See Replacement parts on pages 22-25.
	All four (4) Items just above.	Modify process to reduce drool. Change timing on rotospray spin time to get clean dispenses.

Troubleshooting, cont.

Possible problems and solutions for the Series 9000 Rotospray System.

Troubleshooting Guide		
Problem	Cause	Solution
Air motor does not run but product dispenses normally.	No air supply.	Turn on air supply.
	Low air pressure.	Adjust air pressure to at least 60 psig.
	Control valve faulty.	Replace control valve.
	Control logic problem.	Check program and components.
	Air motor frozen due to lack of lubrication.	Replace air motor and refill air motor lubricator.
Air in Loctite Product.	Loose fittings on inlet side of pump or outlet side of reservoir.	Tighten fittings or replace fittings.
	Kinks or loops in product feed line allowing an air pocket to form.	Reposition feed line with uniform slope so there are no kinks or loops.
	Air trapped in product during reservoir filling.	Fill reservoir slowly.
	Air entrained in product through shaking or agitation.	Allow product to remain at rest so that entrained air can rise to top and escape. Consult Loctite Technical Information about vacuum degassing procedures.
Poor dispensed bead geometry.	Feed tube out of position.	Position feed tube per instructions on page 12.
	Air motor RPM too low.	Increase RPM by adjusting air pressure to at least 60 psig. Ensure that air motor is being lubricated by checking lubricator function.
	Spinner located off hole centerline.	Reposition either the part or the Rotospray Head.
	Spinner OD too close to hole ID.	Use a smaller spinner and feed tube set. Consult Loctite Technical Information about special spinners.

The following is a list of recommended parts or assemblies that may be required to service the Series 9000 Rotospray System.

Reservoir Replacement Parts:

Description	Loctite Part No.	Qty.
Loctite® Product 565 PST® 50 ml tube	56531	1
Product Reservoir Kit	982881	1
Reservoir casement Kit	982882	1
AC Level Sensor Kit	982716	As Req'd.
DC Level Sensor Kit	950395	As Req'd.

Pump Replacement Parts:

Description	Loctite Part No.	Qty.
Pump assembly.	983117	1
Actuator Assembly	983116	1
Tubing 1/4-inch OD poly (for pump outlet).	981821	10 m
Tubing 3/8-inch OD poly (for pump inlet).	981866	10 m
Male connector, 1/4 T x 1/8 NPT, nylon	991733	1
Male connector, 3/8 T x 1/4 NPT, nylon	999635	1
Mounting Bracket	983335	As Req'd.
Male Connector, 1/4 T x 1/8 NPT, Stainless Steel (for pump outlet)	993349	1
Male Connector, 3/8 T x 1/4 NPT, Stainless Steel (for pump inlet)	993553	1

Replacement Parts and Assemblies, cont.

Series 9000 Pump Rebuilding Program:

The Series 9000 Pump is not field serviceable. Our rebuilding process ensures that the pump is free of contaminants and assembled to proper specifications, reducing the possibility of a premature failure or unsatisfactory performance with Loctite products.

This is accomplished by:

- Ultrasonically cleaning the parts in the proper solvents for a predetermined time.
- Treating all the wetted components to ensure a passive surface.
- Using proper replacement parts.
- Reassembling the pump in a clean room environment using proper techniques and torque specifications.

To participate in this program, you will need to purchase and have on hand a pump assembly. At the recommended time intervals, you should replace the current pump assembly with the new assembly and return the used pump to the Loctite Equipment Service Department. A rebuilt pump will be shipped to you within five to ten working days after the receipt of your purchase order.

All parts and labor are included in the price given to you to rebuild your pump. The rebuilt pump carries a ninety-day warranty.

For further information on participating in this rebuild program, please contact us at:

Telephone: 1-800-LOCTITE (1-800-562-8483) or 860-571-5100.

The Spare Parts Listing continues on next page.

Replacement Parts and Assemblies, cont.

Rotospray Head Replacement Parts:

The list below is for horizontal Rotospray Heads. See the list on the following page for spare parts for vertical down Rotospray Heads.

Description	Loctite Part No.	Qty.
Rotospray Drive Assembly complete less spinner and feed tube.	983622	1
Spinner, horizontal, 0.375 inch diameter Feed Tube Assembly for 0.375 inch diameter spinner	983635	1
	983634	1
Spinner, horizontal, 0.437 inch diameter Feed Tube Assembly for 0.437 inch diameter spinner	983636	1
	983634	1
Spinner, horizontal, 0.500 inch diameter Feed Tube Assembly for 0.500 inch diameter spinner	983637	1
	983634	1
Spinner, horizontal, 0.625 inch diameter Feed Tube Assembly for 0.625 inch diameter spinner	983638	1
	952743	1
Spinner, horizontal, 0.750 inch diameter Feed Tube Assembly for 0.750 inch diameter spinner	983639	1
	952743	1
Spinner, horizontal, 0.875 inch diameter Feed Tube Assembly for 0.875 inch diameter spinner	983640	1
	952743	1
Spinner, horizontal, 1.00 inch diameter Feed Tube Assembly for 1.00 inch diameter spinner	952744	1
	952743	1
Spinner, horizontal, 1.25 inch diameter Feed Tube Assembly for 1.25 inch diameter spinner	983642	1
	983657	1
Spinner, horizontal, 1.50 inch diameter Feed Tube Assembly for 1.50 inch diameter spinner	983643	1
	983657	1
Spinner, horizontal, 1.75 inch diameter Feed Tube Assembly for 1.75 inch diameter spinner	983644	1
	983657	1
Spinner, horizontal, 2.00 inch diameter Feed Tube Assembly for 2.00 inch diameter spinner	983645	1
	983657	1

Spare Parts Listing continued on next page.

Replacement Parts and Assmblies, cont.

Rotospray Head Replacement Parts:

The list below is for vertical down Rotospray Heads. See the list on the preceding page for spare parts for horizontal Rotospray Heads.

Description	Loctite Part No.	Qty.
Rotospray Drive Assembly complete less spinner and feed tube assembly.	983622	1
Spinner, vertical down, 0.375 inch diameter	983646	1
Feed Tube Assembly for 0.375 inch diameter spinner	983634	1
Spinner, vertical down, 0.437 inch diameter	983647	1
Feed Tube Assembly for 0.437 inch diameter spinner	983634	1
Spinner, vertical down, 0.500 inch diameter	983648	1
Feed Tube Assembly for 0.500 inch diameter spinner	983634	1
Spinner, vertical down, 0.625 inch diameter	983649	1
Feed Tube Assembly for 0.625 inch diameter spinner	952743	1
Spinner, vertical down, 0.750 inch diameter	983650	1
Feed Tube Assembly for 0.750 inch diameter spinner	952743	1
Spinner, vertical down, 0.875 inch diameter	983651	1
Feed Tube Assembly for 0.875 inch diameter spinner	952743	1
Spinner, vertical down, 1.00 inch diameter	983652	1
Feed Tube Assembly for 1.00 inch diameter spinner	952743	1
Spinner, vertical down, 1.25 inch diameter	983653	1
Feed Tube Assembly for 1.25 inch diameter spinner	983657	1
Spinner, vertical down, 1.50 inch diameter	983654	1
Feed Tube Assembly for 1.50 inch diameter spinner	983657	1
Spinner, vertical down, 1.75 inch diameter	983655	1
Feed Tube Assembly for 1.75 inch diameter spinner	983657	1
Spinner, vertical down, 2.00 inch diameter	983656	1
Feed Tube Assembly for 2.00 inch diameter spinner	983657	1

Telephone Numbers for Help:

Questions regarding installation, operation, or safety should be addressed to:

Henkel Corporation

Technical Information Department

1001 Trout Brook Crossing

Rocky Hill, Connecticut 06067

U.S.A.

Telephone: 1-800-LOCTITE (1-800-562-8483) or 860-571-5100.

Dimensions:

See the Figures listed below for dimensions:

Figure	Description	Page
4	Reservoir Mounting Dimensions.	13
5	Pump Mounting Dimensions.	14
6	Rotospray Head Mounting Dimensions.	15

Weights:**982880 Loctite Rotospray Reservoir.**

4.5 lbs.

14 lbs. When filled with 4 liters of Loctite anaerobic product.

983330 Loctite Series 9000 Rotospray Pump.

1.7 lbs.

Loctite Series 9000 Rotospray Head.

4.4 lbs. (less product tubing and air hoses.)

Utilities Required:**983330 Loctite Series 9000 Rotospray Pump.**

Compressed air:

60 psig to 90 psig., filtered to 5 microns, dry (no condensing moisture).

Lubricated air not required.

Compressed air usage is small, less than 1 scfm per stroke.

Loctite Series 9000 Rotospray Head.

Compressed Air:

60 psig to 80 psig., filtered to 5 microns, dry (no condensing moisture).

Lubricated air:

Use SAE #10 detergent automotive engine oil.

Lubrication rate: (1) drop (1/30 cc or 0.002 in.³) per 50-75 scfm of air.

A 0.002 in³ drop is a sphere of 0.156 inch dia.

Locate mist type lubricator within 18 inches of air motor if possible and at a higher level than air motor. Avoid low spots in air hose, which act as oil trapping points.

Air usage is 12 scfm at 60 psig., 15 scfm at 80 psig.

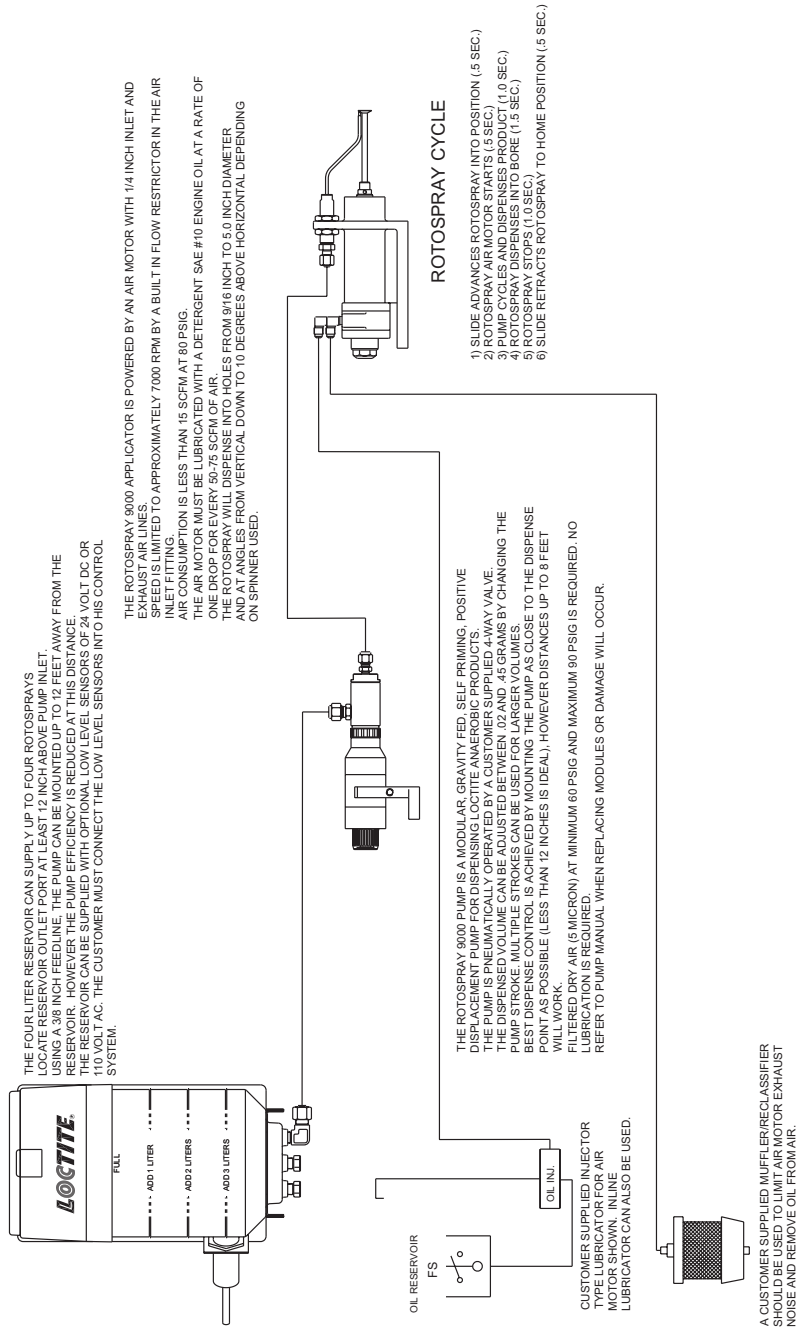


Fig. 9

Loctite expressly warrants that all products referred to in this Instruction Manual under Loctite Series 9000 Rotospray System (hereafter called "Products") shall be free from defects in materials and workmanship. Liability for Loctite shall be limited, at its option, to replacing those Products which are shown to be defective either in materials or workmanship or to credit to the purchaser the amount of the purchase price thereof (plus freight and insurance charges paid therefor by the user). The purchaser's sole and exclusive remedy for breach of warranty shall be such replacement or credit.

A claim of defect in materials or workmanship in any Products shall be allowed only when it is submitted to Loctite in writing within one month after discovery of the defect or after the time the defect should have reasonably have been discovered and in any event, within twelve months after the delivery of the Products to the purchaser. No such claim shall be allowed in respect of Products which have been neglected or improperly stored, transported, handled, installed, connected, operated, used or maintained or in the event of unauthorized modification of the Products including; where products, parts or attachments for use in connection with the Products are available from Loctite, the use of products, parts or attachments which are not manufactured by Loctite.

No Products shall be returned to Loctite for any reason without prior written approval from Loctite.

Products shall be returned freight prepaid in accordance with instructions from Loctite.

NO WARRANTY IS EXTENDED TO ANY EQUIPMENT THAT HAS BEEN ALTERED, MISUSED, NEGLECTED, OR DAMAGED BY ACCIDENT, OR IF THE SYSTEM IS USED TO DISPENSE ANY LIQUID MATERIAL OTHER THAN LOCTITE CORPORATION PRODUCTS.

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