



EQUIPMENT Operation Manual



Loctite® 300ml Cartridge Pusher

Part Number 98022

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1 Please Observe The Following

1.1 Emphasized Sections


Warning!


Refers to safety regulations and requires safety measures that protect the operator or other persons from injury.


Notice


Gives recommendations for better handling of the unit during operation or adjustment as well as for service activities.

1.2 For Your Safety

 For safe and successful operation of the unit, read these instructions completely. If the instructions are not observed, the manufacturer can assume no responsibility.

 Always wear goggles when operating with pressurized air.

 Observe general safety regulations for the handling of chemicals such as Loctite® adhesives and sealants. Observe the manufacturer's instructions as stated in the Material Safety Data Sheet (MSDS).

 While under warranty, the unit may be repaired only by an authorized Loctite® service representative.

1.3 Items Supplied

Carefully remove the unit from its shipping carton and inspect it for any signs of damage. Any damage should be reported immediately to the carrier. Refer to the list of supplied parts below and compare to the contents. Report any missing parts promptly to the Loctite® customer service department at 1-800-LOCTITE or 1-800-562-8483.

- 1 300 ml Cartridge Pusher
- 1 Instruction Manual
- 1 Fitting Kit

2 Description

2.1 Description of Unit


Refer to drawing in section 4 for numbered items below.

- 1 Cartridge Sleeve Cap
- 2 Plastic Washer
- 3 Cartridge Sleeve
- 4 Pneumatic Cylinder – 2” Bore x 8 ½ “ Stroke
- 5 Reed Switch Assembly for low level indicator.
- 6 Hand Lever – 3-way pneumatic valve for controlling movement of cylinder.
- 7 Spacer block for mounting 3-way valve
- 8 Cartridge Plunger Ram
- 9 Cylinder Mount/ Grease Reservoir
- 10 Grease Fitting
- 11 Base Plate
- 12 Advance Air Port
- 13 Retract Air Port
- 14 Regulator 0-60 PSI
- 15 Pressure Gage 0-61 PSI
- 16 Advance Air Port
- 17 Retract Air Port
- 18 Air Supply Port

2.2 Theory of Operation

The 300 ml Cartridge Pusher 98022 is used to dispense Loctite® medium viscosity adhesive from 300 ml cartridges. The cartridge pusher is a front loaded, freestanding device that can be coupled with a Loctite® Single Function Controller 98023, Three Function Controller 98024 or integrated into an existing work cell.


Pressurized air is supplied to the air regulator. The air regulator controls the air pressure that flows into the ram cylinder. A hand lever, pneumatic, three-way valve channels the pressurized air into the pneumatic cylinder. The hand lever controls the direction of travel of the piston within the air cylinder. Moving the hand lever down*, toward the cartridge sleeve, causes the piston to move forward pressing product out of the 300 ml cartridge through a product feed line. Moving the hand lever up*, toward the air cylinder, causes the piston to retract. (* Refers to unit mounted in vertical orientation.)

 The amount of product dispensed is controlled by three main factors:

- Amount of pressure pushing on the piston.
- Length of time a shut off valve remains open
- Dispense needle size – length and orifice diameter

2 Description (Continued)

A reed switch assembly is located on the air cylinder. The use of this switch is optional. This normally closed switch is equipped with an LED indicator and a connector has been installed to interface with Loctite® Single Function Controller 98023 or Three Function Controller 98024. The reed switch is activated by a permanent magnet located on the piston within the air cylinder. As product is dispensed out of the 300 ml package, the piston will move forward and activate the reed switch. Once activated the LED indicator and the 24 volt output signal will turn off, thereby communicating a low level condition to the controller.

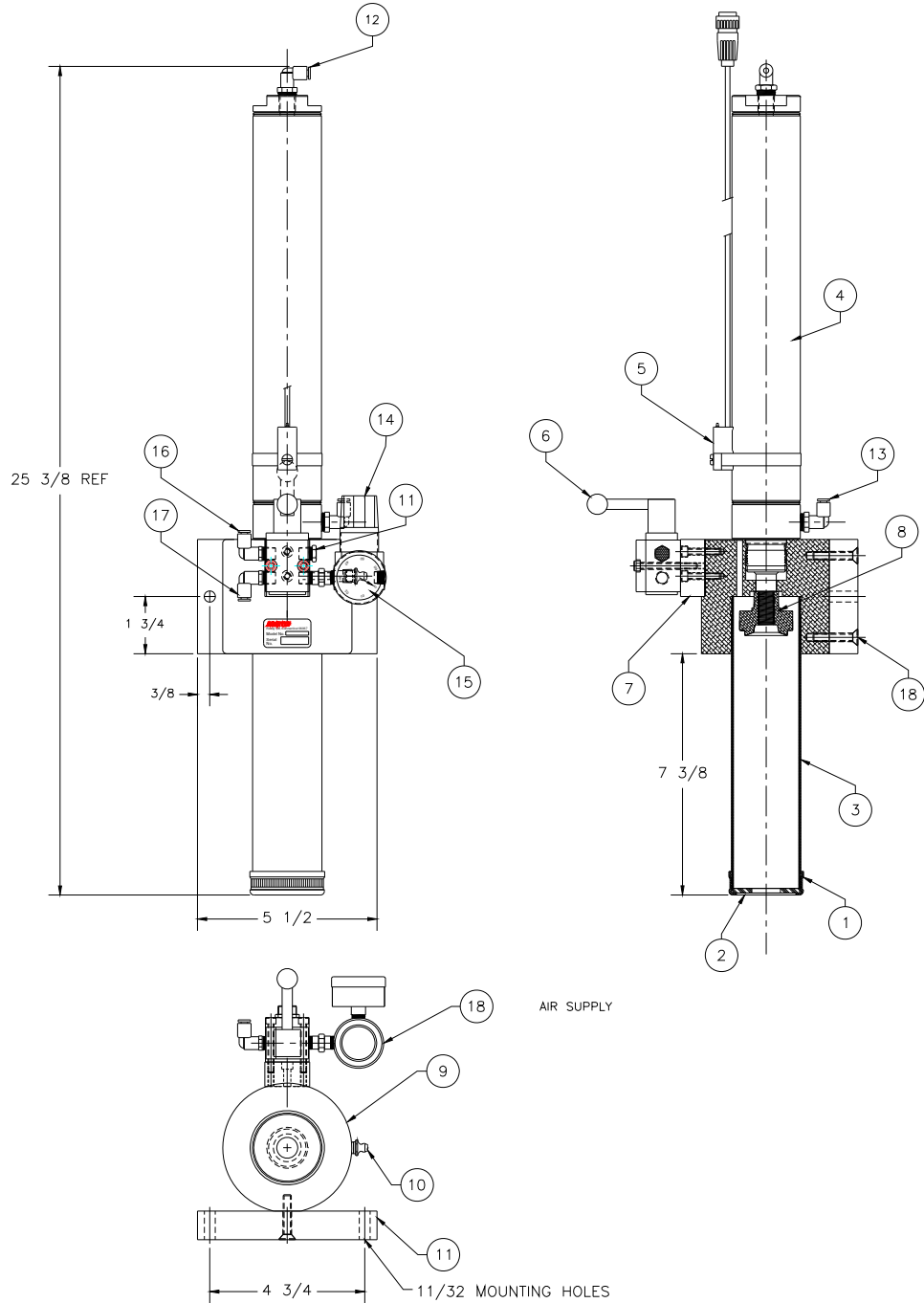
 The 300 ml Cartridge Pusher is outfitted with a grease fitting located on the main housing. This fitting allows access to a grease reservoir, which surrounds the piston shaft applying a generous coating of grease during use. This grease protects the surface of the shaft and the cylinder seals from adhesives or other contaminants.

3 Technical Data


Pneumatic Supply	Min 50 PSI	Max 100 PSI
Air Quality	Filtered 10 um, oil-free, non-condensing	
Pneumatic Hose Size	Minimum 4mm I.D.	
Dimensions	W x H x D, 5 1/2" x 8 3/8" x 26 3/4"	
Operating Temperature	10° C to 40° C (50° F to 104° F)	
Weight	10.6 Lbs. (4.8 kg)	

4 Installation

1. The 300ml cartridge pusher is designed to be mounted vertical or horizontal position. The vertical position is preferred. See drawing for hole locations.
2. Install airline to regulator using a 1/8" NPT fitting.



5 Dispensing


 The low level indicator must be set up before a cartridge of product is loaded into the dispenser. The unit has been factory pre-set but minor adjustment may be needed.

5.1 Setting Up Low Level Indicator

1. Set hand lever (item 6) down to advance position.
2. Extend ram (item 8) until ram contacts sleeve cap (item 1).
3. Connect reed switch (item 5) to Loctite® Single Function Controller 98023.
4. Loosen barrel clamp on reed switch (item 5) and slide switch down cylinder (item 4), toward dispense end, until LED goes out.
5. Move reed switch (item 5) back up cylinder (item 4) approximately ½” and tighten barrel clamp.
6. Fine adjustment of reed switch (item 5) can be accomplished after first cartridge is emptied.

5.2 Installing a 300 ml Cartridge

1. Set hand lever (item 6) up to retract position.
2. Remove sleeve cap (item 1) and plastic washer (item 2).
3. Prepare cartridge by installing feed tube fitting.
4. Slide cartridge into cartridge sleeve (item 3).
5. Install cartridge sleeve cap (item 1) and plastic washer (item 2).
6. Install appropriate cartridge adapter onto cartridge.
7. Install feed tube or needle fitting and into the adapter.
8. Use pressure regulator (item 14) to set cylinder pressure.


 Typical regulator settings range from 10 psi to 50 psi. Regulator pressure settings greater than 50 psi is **not recommended**. If regulator is set at 50 psi and product flow is insufficient then a larger product feed line should be used.


9. Move hand lever (item 6) down to cause the ram (item 8) to advance.

5.3 Shut Down

Move the hand lever (item 6) up toward the air cylinder (item 4) to retract piston.

6 Care, Cleaning and Maintenance

 If dispensing is to be stopped for a prolonged period of time shut total system down and remove 300 ml cartridge from sleeve.

 Every 3 – 6 weeks, Loctite® ViperLube™ Grease should be pumped into grease fitting located on cylinder mount/grease reservoir (item 9).

7 Troubleshooting

Problem	Possible Cause	Correction
No adhesive is dispensed.	<ul style="list-style-type: none"> • Cylinder is in retract mode. • Product reservoir is empty. • Air pressure is set to low. • Flow controls on 3-way valve is shut down. • Blockage downstream of cartridge pusher. 	<ul style="list-style-type: none"> • Move hand lever down to advance ram. • Insert new product package into cartridge sleeve. • Check incoming air pressure (min 60 PSI). • Open flow controls on 3-way valve. • Check valve, hose, and needle.
LED indicator does not light.	<ul style="list-style-type: none"> • Connection is loose. • Reed switch is not properly located. • Indicator is faulty. 	<ul style="list-style-type: none"> • Tighten plug connector. • See low level set-up instructions. • Replace sensor.

8 Documentation

8.1 Spare Parts

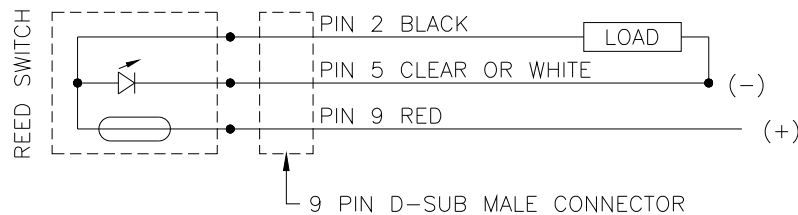
Cartridge Sleeve Kit	984826	
Kit includes – Cartridge Sleeve		
Cartridge Sleeve Cap		
Plastic Washer		
Normally Closed Reed Switch Assembly		984756
Air Cylinder	984732	
Plunger Ram	984755	

8.2 Optional Accessories

Loctite® ViperLube™ Grease 14 oz. Cartridge	36782	
Cartridge Fitting Kits:		
Poly Fitting 1/4" Tube x 1/4 Male NPT, Qty 10	984832	
Poly Fitting 3/8" Tube x 1/4 Male NPT, Qty 10	984833	
Fischbach cartridge to 1/4 Female NPT, S.S., Qty. 1	982644	
Adapter, Semco Cartridge to 1/4 Female NPT, Qty 3	98181	
Adapter, Fitting, Male Luer Lok x 1/4 Male NPT, Qty. 5	98371	
Nozzle, 2.5" Long x 1/4 Male NPT, Qty. 10	98128	
Feedtube Kits:		
Black Teflon® Lined Feedtube, 3/8" x 33 feet	97970	
Black Teflon® Lined Feedtube, 1/4" x 33 feet	97972	

8 Documentation (Continued)

8.3 Wiring Diagram



9 Warranty

Henkel expressly warrants that all products referred to in this Instruction Manual for The 300 ml Cartridge Pusher 98022 (hereafter called "Products") shall be free from defects in materials and workmanship. Liability for Henkel shall be limited, as its option, to replacing those Products which are shown to be defective in either materials or workmanship or to credit 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 in writing within one month after discovery of the defect or after the time the defect should reasonably have been discovered and in any event, within 12 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. 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 Henkel, the use of products, parts or attachments which are not manufactured by Henke, no claim shall be allowed.

No Products shall be returned to Henkel for any reason without prior written approval from Henkel. Products shall be returned freight prepaid, in accordance with instructions from Henke.

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