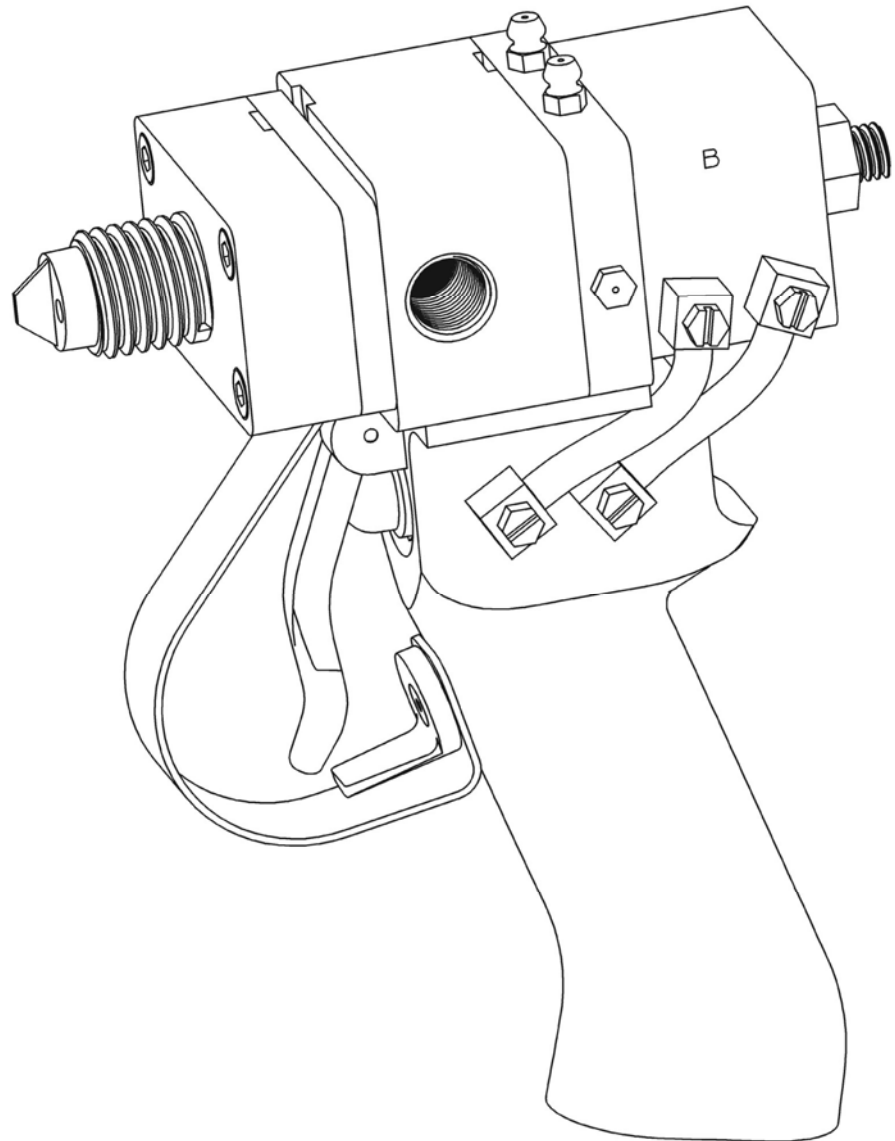




REMOTE VALVE PNEUMATIC/SNUFF BACK

INSTRUCTIONS / PARTS LIST



Items 1051664, 1051662, 1079254, 1079256

**THIS MANUAL CONTAINS IMPORTANT
WARNINGS AND INSTRUCTIONS**

READ AND RETAIN FOR REFERENCE

OPERATION / INSTALLATION

OPERATION

The **ON-OFF** operation of the valve is controlled by movement of the piston inside the air cylinder.

In the **OFF** position, the piston retracts and the dual spool valves (75) seat into the front lip seals (3) which are located inside the seat plate (8).

In the **ON** position, the piston and the spool valves move forward (75) which allow A & B fluids to pass through the manifold.

To eliminate drooling or stringing of the adhesive out of the mix tube, the spool valves (75) can be retracted through the front lip seals (3). This snuff back action is controlled by the adjustment screw on the back of the air cylinder.

The snuff back should be adjusted so the fluid just stops at the end of the mixing tube. Excessive snuff back will cause premature plugging of the valve. Disposable static mixers can be attached to the manifold.

Your REMOTE VALVE in general...

- Designed to dispense two-component adhesives and sealants.
- Dispenses low or high viscosity urethanes, epoxies and silicones.
- Can be mounted for beads or timed shots; optional handle is available for hand held applications.
- Provides an ON-OFF function. The metering of the adhesives in the proper ratio of A:B is controlled by the metering pumps.

INSTALLATION

Connect Supply Lines

The A & B fluid hoses are connected to the side of the valve body (7), between the valve and the pumps, and should be as short as possible.

For stationary mount, the air lines will be connected to the side of the air cylinder. The valve requires air to the front of the cylinder to close, and air to the back to open. If the optional handle is used, air is connected to the barbed fitting on the side of the handle.

The air line should have minimum pressure of 80 psi.

Start- Up

With the hand-held model, start metering pumps and purge the air out of the A & B hoses and Remote Valve. After the A and B fluids come out of the manifold, attach a mixer to the manifold and hold the valve upside down with the mixer pointing up. Dispensing A & B will purge the last pockets of air in the valve body.

A stationary mount or gantry installation may require removal from its mount in order to purge. To complete purging, turn the valve with the mixer pointing up and dispense A & B.

1. Take a ratio check by weight of A:B after the manifold. The Remote Valve does No Metering. The Volume Ratio of A:B is controlled by the metering pumps. However, between the metering pumps and the Remote Valve are hoses. These hoses will expand under pressure and cause lead-lag problems. Lead-lag refers to the uneven starting of the A fluid before the B fluid. Henkel Corp. offers standard and high (wide) ratio manifolds to reduce this problem. The selection of the correct manifold depends on both the volume and viscosity ratio of A and B. Consult Technical Services for details at 800-LOCTITE.
2. Adjust snuff back screw for minimum snuff back. Too much snuff back may draw product into the mixer and cause curing.

MAINTENANCE

Two-component adhesives are messy and difficult to handle. It is important to note that Routine Maintenance must be observed. If one delays maintenance until the valve stops, clean-up is very time consuming.

ROUTINE MAINTENANCE

1. Release pressures in A and B fluid hoses. Remove manifold and clean. We recommend overnight soaking in a suitable solvent.
2. At the end of each shift, lubricate the back seals. Pump grease through the grease fitting (4) and out the plug (11). Using extra grease will extend seal life
3. To clean the spool valves (75), first release the pressure on the A and B fluid hose. Then remove the manifold, and advance the snuff back adjustment until the spool valves are protruding from the seat plate (8). With a toothbrush or rag soaked in solvent, brush the spool valves clean. Protective eyeglasses should be used.

Note: With moisture sensitive urethanes or epoxies the spool valves must be cleaned. After cleaning, coat the spool valves with grease (Reference; Loctite® 997569).

4. The O-Rings (6) and Lip Seals (3) are in a very harsh environment. In addition to resisting the adhesives, they must be inert to the strong solvents used in cleaning the valve.

MAINTENANCE

DISASSEMBLY AND CLEANING

1. Remove the manifold and seat plate (8). Pry bar slots are provided.
2. Remove the air cylinder bolts (2) and wiggle the air cylinder apart. If the assembly is frozen, use the pry bar slots on the valve body (7) to separate the valve body (7) from the tie plate (5). Insert flat pieces of metal between the valve body and the tie plate as per Figure 1. Thread the manifold screws into the back of the tie plate and push the valve body apart. Apply uniform pressure to prevent the body from cocking and bending the spool valves (75).
3. Once apart, the parts should be cleaned. We recommend overnight soaking in suitable solvent. All parts can be soaked except the handle and air cylinder.

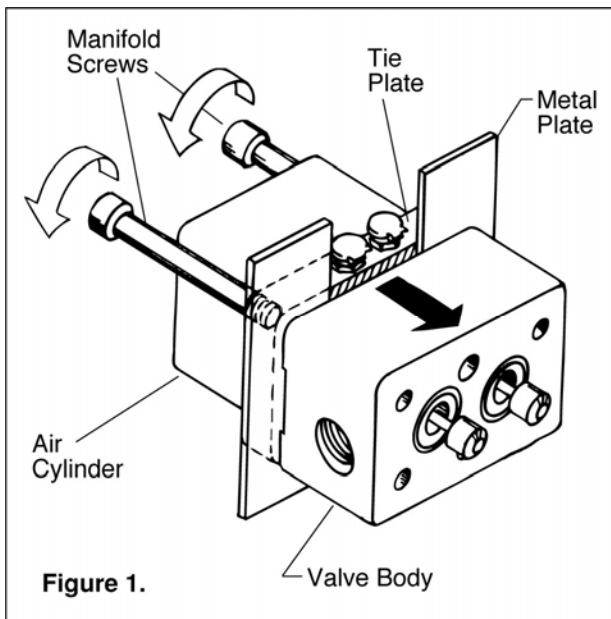


Figure 1.

REBUILDING REMOTE VALVE

1. After cleaning, inspect the following components:
 - a. Spool valves (75) for wear
 - b. Lip Seals - both outside and inside lip
 - c. Manually retract and extend spool valves from air cylinder.
 - d. If the optional grip handle is used, connect air into the inlet and check 4-way action of cartridge valve.
2. Lubricate lip seals and shafts (75) with grease.
3. Insert four back lip seals: two into tie plate and two into the valve body. The lip seals are two pieces: an O-Ring and U-Cup. They should always be installed with the O-Ring facing the front of the valve (facing the manifold).
4. Insert two front lip seals (3) that are located in the seat plate (8). They should be installed with the O-Ring facing

the back of the valve (facing the air cylinder).

Optional Installation: With O-Ring facing manifold. Used when minimum snuff back is required. However, reduced seal life can be expected.

5. Insert O-Rings and assemble air cylinder and valve body.
6. Push seat plate (8) through spool valves (75) and tighten bolts.

FINAL QC CHECK

Before the manifold is assembled, we recommend the following procedure:

1. Check the open and close movement of the spool valves (75).
2. Check gap between seat plate (8) and spool valve (75). Refer to Figure 2 when spool valves are in open position.
3. Check front lip seals by pressurizing the valve body (7) and applying soapy water into the front seals. The valve body can be pressurized by connecting air into the A and B inlet ports on the valve body.
4. Seat Plate (8)

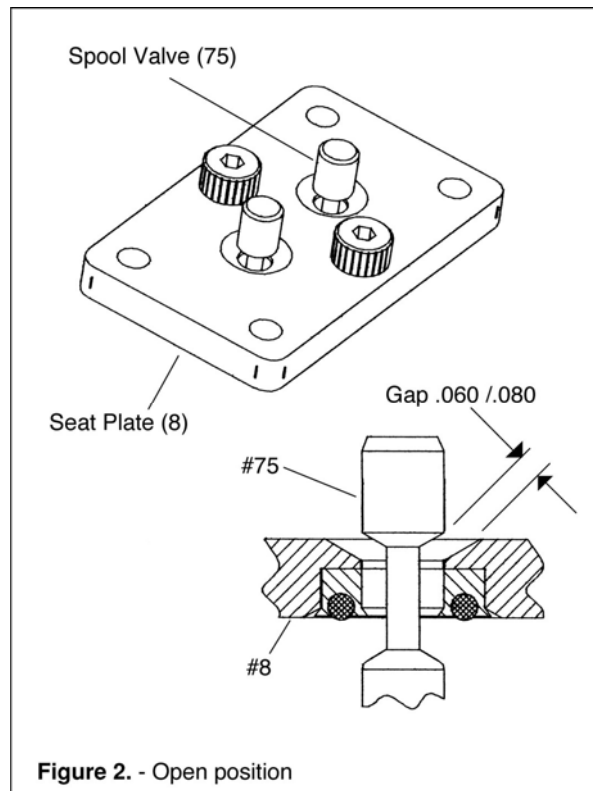


Figure 2. - Open position

MAINTENANCE

TROUBLESHOOTING

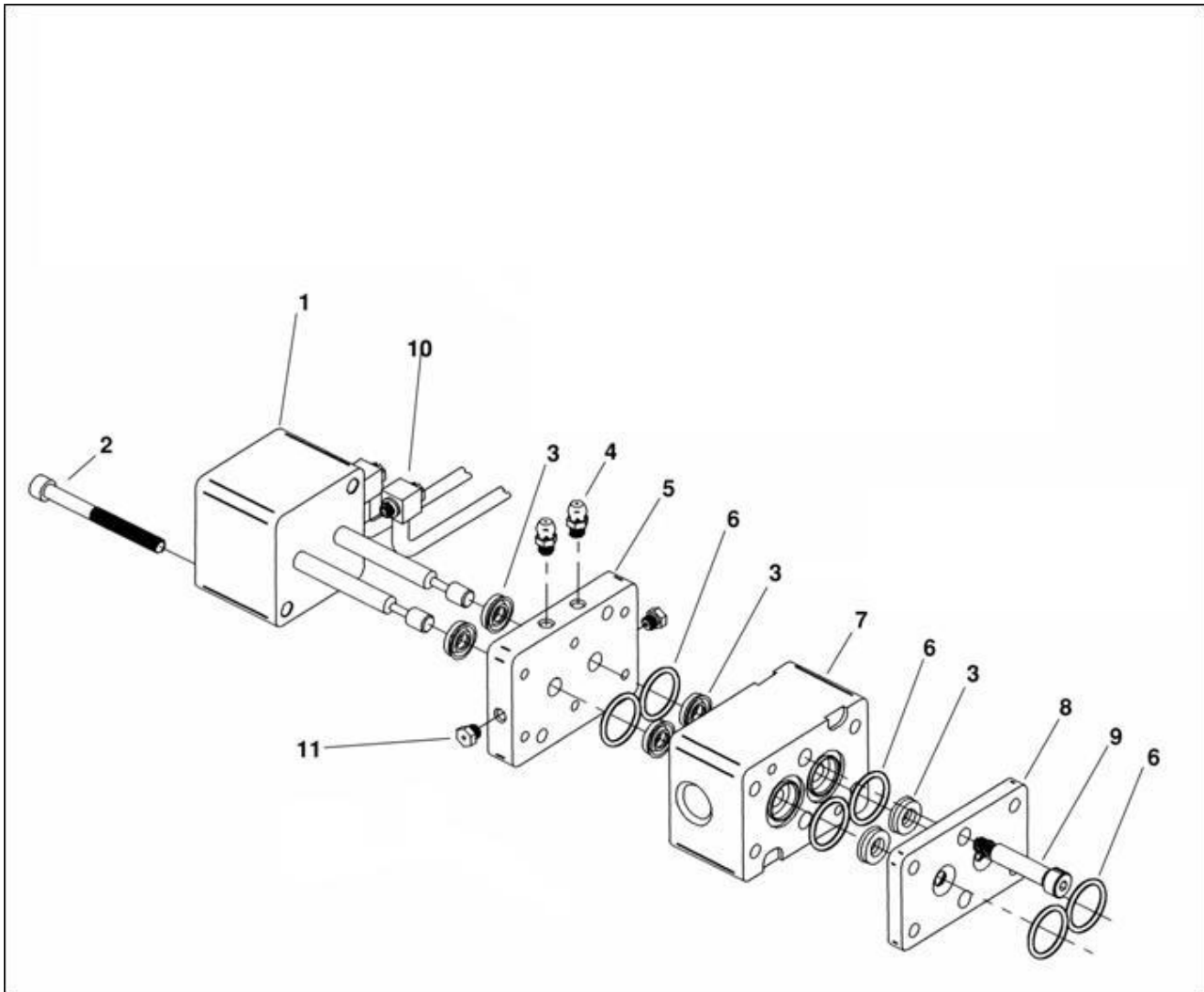
Problem	Cause	Solution
No Flow	Manifold clogged	Remove manifold and clean
	Air pressure too low	Require 80 psi inlet pressure
	Air valve damaged	See Note 1 below
	Spool valves stuck	See Note 2 below
	Valve fouled	Disassemble (see Maintenance)
Valve Leaks	Snuff back	Retract snuff back screw
	Spool valve (75) clogged	See Note 3 below
	Seals (3) worn	Replace seals (see Maintenance)
	Spool valve (75) worn	Inspect and replace if required
Valve Drools	Air trapped in valve	Review Start-Up Procedure
	Seals (3) worn	Replace Seals (see Maintenance)
Off Ratio A:B	Metering pumps	Check pumps
A & B backs up into Tie Plate	Seals damaged	Replace Back Lip Seals (page 4)
Material not mixing	Fouled Mixer	Replace Mixer
	Off Ratio A:B	Take Ratio Check
Mixer Leaks	Manifold Fouled	Clean nose of manifold
Lip Seals Deteriorate	Chemical Attack	See Maintenance (page 3)

Note 1. Inspect air cartridge valve in handle. The On-Off function of the valve is controlled by this cartridge valve in the handle. The air cylinder requires air in the front to close and air in the back to open.

To inspect the cartridge valve, disconnect the two air lines on the air cylinder. When the trigger is depressed, air should be flowing only through the back air line and not through the front air line. When the trigger is released the air should reverse.

Note 2. Advance the snuff back screw and pulse air into the air cylinder. Repeat 3 or 4 times.

Note 3. First release the pressure on the A and B hoses. Remove the manifold and advance the snuff back screw until the spool valves are protruding from the seat plate. With a toothbrush or rag soaked in solvent, brush the valves clean. After cleaning, depress trigger to retract spool valve.



Ref.	Qty.	Description
1	1	Single Air Cylinder 5/16" stroke with Hardened SS Valve Shafts
2	2	SHCS 10-24 x 2" long
3	6	* Lip Seal: Polytuff U-Cup and Stainless Steel Spring
4	2	Grease Fitting 10-32
5	1	Aluminum Tie Plate
6	6	* Teflon® Encapsulated O-Ring
7A	1	AlumBody 9/16- 18 Inlet Ports
7B	1	SS Body 9/16- 18 Inlet Ports
8	1	Stainless Steel Seat Plate for
9	2	Stainless Steel SHSS 1/4" Dia x 1 1/2" long
10	2	Assembled Air Tube and Fitting 10-32 Thread
11	2	Plugs: Brass 10-32 with Fiber Washer

* Included in Item 1053257 Valve Repair Kit

Viton® is a registered trademark of DuPont Dow Elastomers Teflon® is a registered trademark of E.I. DuPont De Nemours

MANIFOLDS

The Standard Manifold is part of the complete valve assembly:

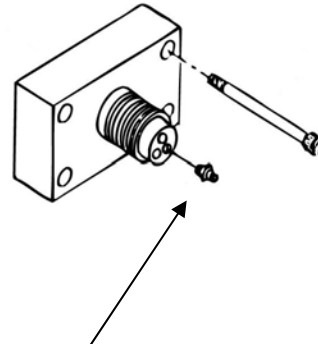
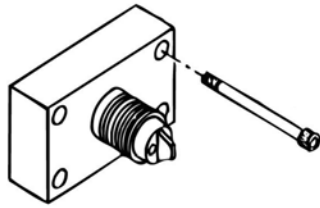
1051664 Aluminum w/ Snuff back

1051662 Stainless w/ Snuff back

The High (wide) Ratio Manifold is part of the complete valve assembly:

1079254 Aluminum w/ Snuff back

1079256 Stainless w/ Snuff back



Threaded Nozzle (3 sizes) Item 1079255

Low viscosity port

High (wide) Ratio Manifold

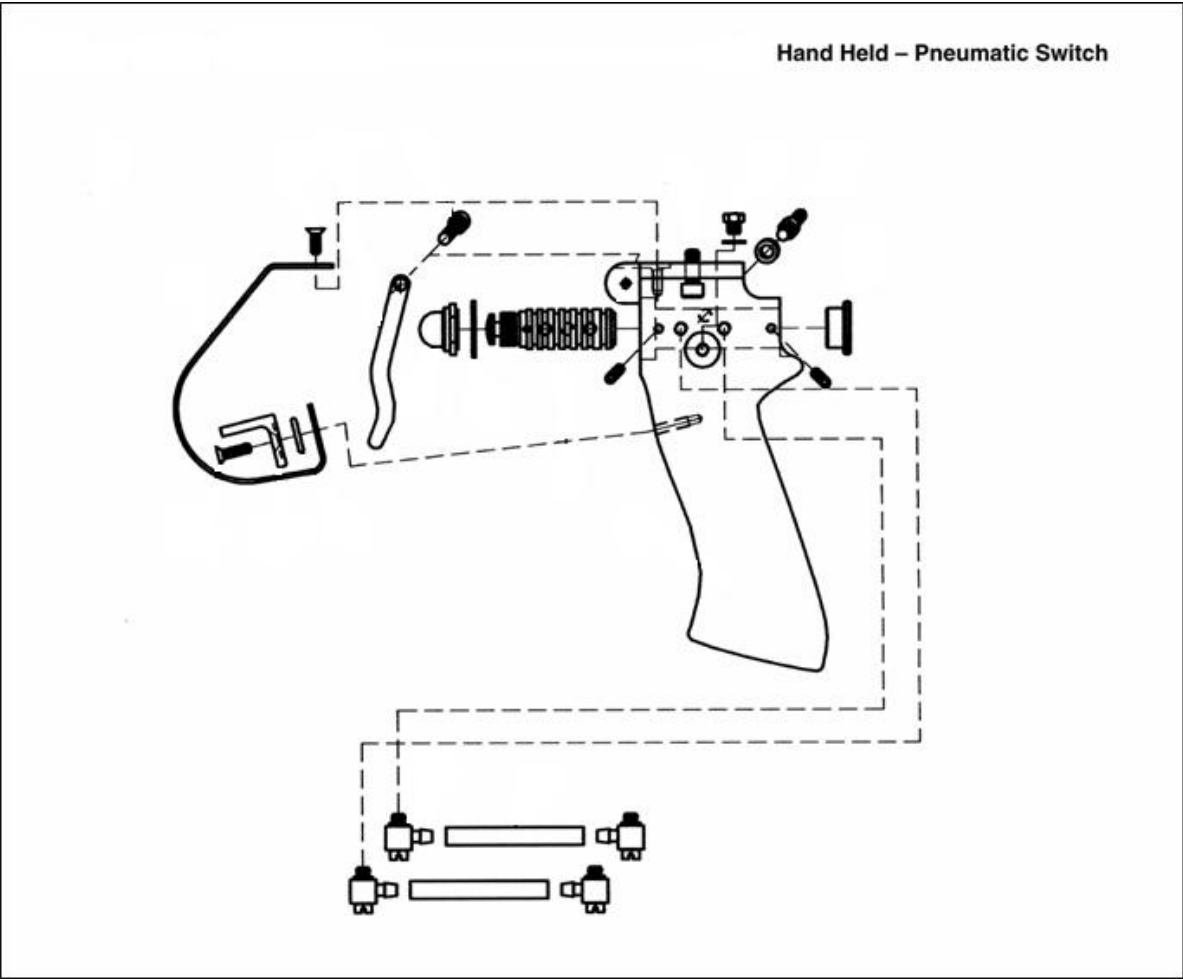
THIS MANIFOLD TYPE IS USED WHEN THE PRODUCTS VISCOSITIES VARY GREATLY FROM EACH OTHER. IF PRODUCT A VISCOSITY IS 7 TIMES OR GREATER FROM PRODUCT B (OR VICE-VERSA), THEN A HIGH RATIO MANIFOLD SHOULD BE USED. THE LOW VISCOSITY PRODUCT IS FED TO THE THREADED PORT SIDE OF THE MANIFOLD.

THE HIGH RATIO MANIFOLD HAS A THREADED PORT TO INSERT 1 OF 3 NOZZLES. THESE NOZZLES REDUCE THE PRODUCT OUTLET SIZE CAUSING A RESTRICTION AND THUS INCREASING THE OUTPUT PRESSURE OF THE PRODUCT AS IT EXITS THE VALVE. THIS HIGHER PRESSURE PREVENTS THE HIGHER VISCOSITY PRODUCT FROM FORCING ITSELF INTO THE LOWER VISCOSITY PORT.

Remote Dispense Valve

HENKEL Corp.

GRIP (OPTIONAL; ITEM # 1051661)

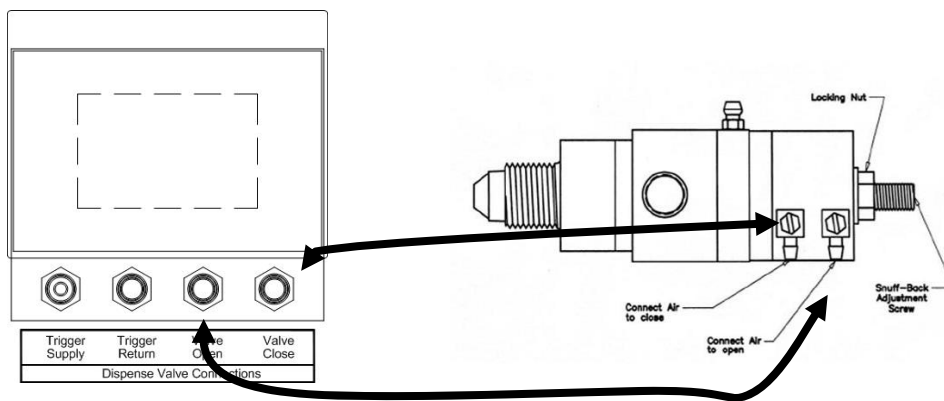


CONNECTING A MACHINE MOUNTED VALVE TO THE DURAPUMP



Ensure that inlet air and product inlet pressure is OFF

1. Remove the mix-block assembly from the machine.
2. Attach the required product feed hoses to the valve.
3. Remove the valve OPEN and valve CLOSED port plugs on the front of the machine.
4. Connect a 5/32 air line from the 'closed' remote valve port to the closed pneumatic port on the valve. Do the same for the 'open' port.
5. The remote valve will cycle when the footswitch is actuated.



6. To pneumatically cycle the machine, place an air pulse on the Trigger Return port at the Dispense Valve Connections.

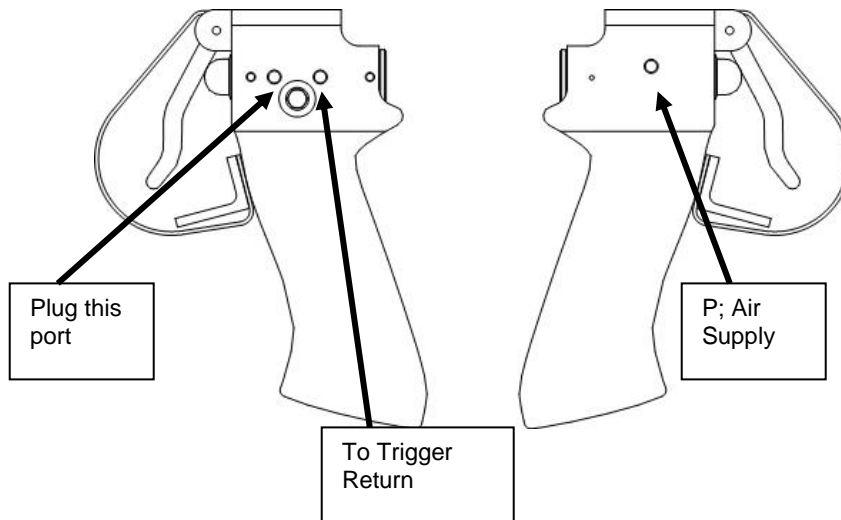
CONNECTING A HAND HELD DISPENSE VALVE TO THE DURAPUMP



Ensure that inlet air and product inlet pressure is OFF

1. Connect an air line from the Trigger Supply port on the front of the machine to the dispense valve's pilot or constant air supply (single port side on grip handle).
2. Install a line to the OPEN (A) side of the gun handle. Run the line back to the Trigger Return port on the machine. Plug the CLOSED port on the handle.
3. Run a line for each; the open and closed ports on the machine to the open and closed ports on the dispense valve (as illustrated in 5.6).
4. The machine will be cycled by the gun trigger.

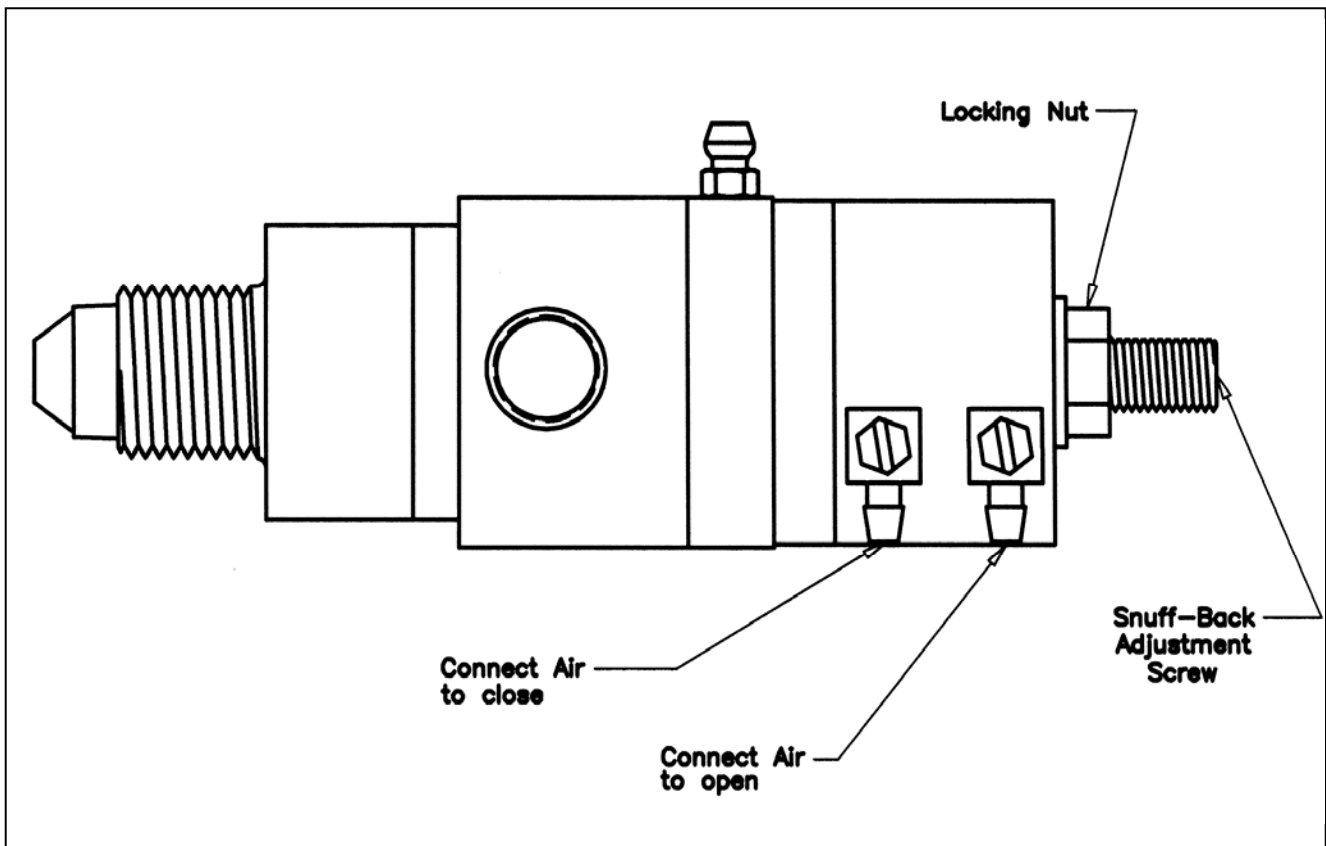
This arrangement will permit remote valve operation controlled by the machine cycling.



AIR CYLINDERS

REMOTE VALVE WITH SNUFF-BACK

Snuff-Back Adjustment: Advancing (clockwise turn) the snuff-back adjustment screw reduces snuff-back, retracting (counter-clockwise) it increases the snuff-back. Since excessive snuff-back action can cause plugging of the valve, adjust for minimum snuff-back, as follows: with the pumps on and valve in the "closed" position, advance the adjustment screw until material begins to drool out of the static mixer (acting as if the valve is open). Then retract the screw until fluid just stops, at the minimum snuff-back position. If material drools or drips during operation, slightly increase the snuff-back until the desired action is achieved.



SPARE PARTS KITS

Remote Valve Repair Kits

Each Kit contains a complete set of Lip Seals and O-Rings.

Item No. 1053257

Teflon O-Rings
Polytuff U-Cups & SS Springs

Orifice Kit (for High Ratio Valves)

Item No. 1079255 contains:

Description
Polypropylene Fitting .09" Orifice
Polypropylene Fitting .06" Orifice
Polypropylene Fitting .04" Orifice

Hose Kit (includes elbow fittings to valve and straight adapters to machine) to 2,250 PSI

Item No.	Description
1051692	3/8 x 24" General Purpose
1051691	3/8 x 96" General Purpose
1051693	3/8 x 144" General Purpose
1051670	3/8 x 24" For MMA
1051669	3/8 x 96" For MMA
1051664	3/8 x 144" For MMA

316 Stainless Steel 37 Degree JIC Adapters

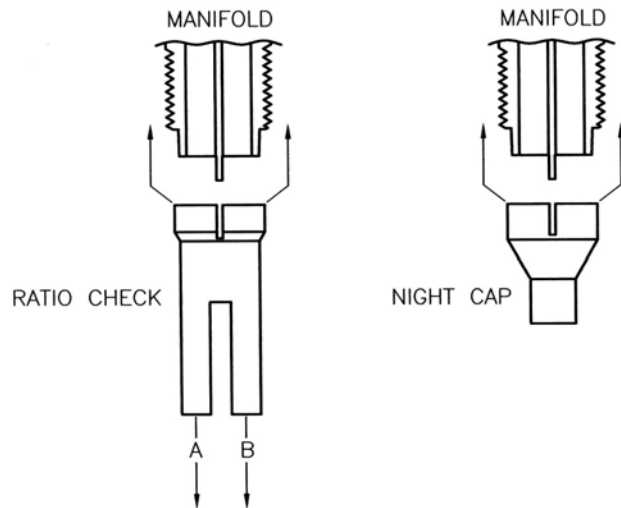
Item No.	Description
989130	90 degree Elbow with 3/8" Male JIC
989127	Straight Adapter with 1/2" Male JIC
989128	Straight Adapter with 3/8" Male JIC

ADDITIONAL ACCESSORIES

Ratio Check Cap

In order to ensure correct A/B ratio, ratio checks should be performed regularly with our new Ratio Check Cap.

Night Cap



At night or on weekends, it is a good idea to seal your system. After the static mixer is removed, a night cap can be installed. A little grease on the night cap (against the manifold) is also recommended to enhance the sealing, especially over the weekends.

Item No.	Description
1053261	Ratio Check Cap with retaining nut
1053260	Night Cap with retaining nut

Hand Held Grip (Pneumatic)

Item No.	Description
1051661	Pistol Grip for Dispense Valve

ALL PURPOSE GREASE – APG #2

This Material Safety Data Sheet complies with 29 CFR 1910.1200-OSHA Hazard Communication Standard

SECTION I - PRODUCT IDENTIFICATION

General of Generic ID: Aliphatic Hydrocarbon Gel
DOT Hazard Classification: None

SECTION II - COMPONENTS

If present, IARC, NTP and OSHA Carcinogens and chemicals subject to the reporting requirements of SARA Title III Section 313 are identified in this section.

INGREDIENTS	EXPOSURE LIMITS	PERCENT	FOOTNOTE
White mineral oil (CAS# 8042-47-5)	PEL-TWA 5 mg/M3 TLV-TWA 5 mg/M3	84	(1)
Amorphous fumed silica (CAS# 67762-90-7)	PEL-TWA 6 mg/M3 TLV-TWA 2 mg/M3	12	
PTFE (CAS# 9002-84-0)	Not established	4	(2)

(1) OSHA Short Term Exposure Limit (STEL) for mineral oil mist is 5 mg/M3. ACGIII STEL for mineral oil mist is 10 mg/M3.

(2) PTFE - polytetrafluoroethylene fillers and corrosion inhibitors.

SECTION III

PROPERTY	MEASUREMENT	PROPERTY	MEASUREMENT
Boiling Point	650°F (component) @ 760 mmHg	Specific Gravity	0.8275 (component) @ 77°F
Vapor Pressure	>1 mmHg (component) @ 70°F	Percent Volatiles	Approximately 84%
Vapor Density	Not Available	Evaporation Rate	Slower than ether
		Appearance	White paste, slight odor

SECTION IV - FIRE AND EXPLOSION INFORMATION

Flash Point: 445°F (component) by TCC
Explosive Limit: Not available
Extinguishing media: Dry chemical, carbon dioxide, water spray (fog), regular foam

Hazardous Decomposition Products: May form toxic materials including but not limited to: carbon monoxide, carbon dioxide, various hydrocarbons and trace amounts of COF₂ and CF₄ at temperatures above 1200OF.

Fire Fighting Procedures: no special requirements. Wear self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode. Cool fire exposed containers with water spray.

Special Fire & Explosion hazards: No special requirements.

SECTION V - HEALTH HAZARD DATA

Permissible Exposure Limits: Not established for product. See Section II for PEL/TLVs.

Effects of Acute Overexposure:

EYES: May cause mild irritation. Symptoms may include: stinging, tearing, redness and swelling.

SKIN: May cause mild irritation. Repeated or prolonged contact can dry the skin. Symptoms may include: redness, burning, drying, cracking, and skin burns.

BREATHING: Exposure to vapors or mists is possible. Short-term inhalation toxicity is low. Breathing small amounts incidental to normal handling and use is not likely to cause adverse effects; however, large amounts may be harmful. Symptoms are associated with exposure that occurs above the recommended exposure limits. Symptoms may include: Central Nervous Systems (CNS) effects such as: drowsiness, weakness, fatigue, nausea, headache, unconsciousness, coma and death. Exposure to thermal decomposition products generated by temperatures above 1000oF can cause polymer fume fever, with symptoms of fever, chill, cough and general malaise. This is generally a temporary condition.

SWALLOWING: Due to the nature of this material, it is difficult to swallow; however, single dose toxicity for each component is considered to be low. Small amounts swallowed incidental to normal handling and use are unlikely to cause harmful effects, although swallowing large amounts may be harmful. The petroleum based component in this product is considered an aspiration hazard. During swallowing or vomiting, this material can enter the lungs and cause inflammation and/or damage. The liquid may also be absorbed through the lungs and result in injury to other body systems.

FIRST AID:

EYES: If symptoms develop, move individual away from exposure and into fresh air. Flush eyes for at least 15 minutes while holding eyelids apart.

SKIN: Remove any contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Wash any contaminated clothing before reusing.

BREATHING: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen (if you have been trained in its use). If breathing has stopped, give artificial respiration. Keep person warm, quiet and get medical attention.

SWALLOWING: Do not induce vomiting. Keep person warm, quiet and get medical attention. If possible, do not leave person unattended.

Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis, which can be fatal.

Primary Route(s) of Entry: Inhalation and skin contact.

Effects of Chronic Overexposure: No data was found on chronic overexposures to this product or its components.

Medical Conditions Aggravated by Exposure: Skin contact may aggravate existing dermatitis or other significant skin conditions.

ALL PURPOSE GREASE – APG #2

SECTION VI - REACTIVITY D

ATA

Hazardous Polymerization: Cannot occur.

Stability: Stable

Incompatibility: Avoid contact with strong oxidizing agents, sodium - potassium alloy. Avoid conditions such as: open flame, temperature above 1000°F.

SECTION VII - SPILL OR LEAK PROCEDURES

SMALL SPILL: Vacuum, shovel or sweep up material.

LARGE SPILL: Persons not wearing protective equipment should be excluded from spill area until clean-up has been completed. Only personnel trained in spill clean-up under 29 CFR 1910.120 should be involved with spill clean-up procedures. Stop spill at source. Prevent material from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If run occurs, notify appropriate authorities as required. Vacuum, shovel or sweep spilled product to clean containers for recovery. Transfer contaminated soil and other materials to container for disposal.

Waste disposal: Dispose of in accordance with all local, state, and federal regulations.

SECTION VIII - PROTECTIVE EQUIPMENT TO BE USED

Respiratory Protection: If workplace exposure limit(s) or product or any component is exceeded (See Section II), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators under specified conditions - see 29 CFR 1910.134 or your safety equipment supplier. Engineering and/or administrative controls should be implemented to reduce exposure.

Ventilation: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below PEL/TLVs.

Protective Gloves: Wear chemical resistant gloves. Contact your safety equipment supplier.

Eye Protection: Chemical splash goggles in compliance with OSHA regulations are advised. Consult your safety equipment supplier.

Other protective equipment: To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

SECTION IX - SPECIAL PRECAUTIONS OR OTHER COMMENTS

Other Regulatory Information:

CERCLA — Not regulated

RCRA — Not regulated

SARA, Section 302 — Not regulated

SARA, Section 311/312 — Immediate health hazard

SARA, Section 313 — None known to meet the reporting requirements

DOT — Proper shipping name: Not applicable

Hazard Class: Not applicable

Containers of this material may be hazardous when emptied. Since emptied containers retaining product residues, vapors, liquids, and/or solids may pose a hazard. Containers identified as empty should be handled carefully. Observe all hazard precautions presented on the MSDS.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

WARRANTY

Henkel expressly warrants that all products referred to in this Instruction Manual for Henkel Remote Dispense Valve (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. This warranty does not apply to perishable items, such as (seals, o-rings, etc.). 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 Henkel, 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 Henkel.

NO WARRANTY IS EXTENDED TO ANY EQUIPMENT WHICH HAS BEEN ALTERED, MISUSED, NEGLECTED, OR DAMAGED BY ACCIDENT.

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