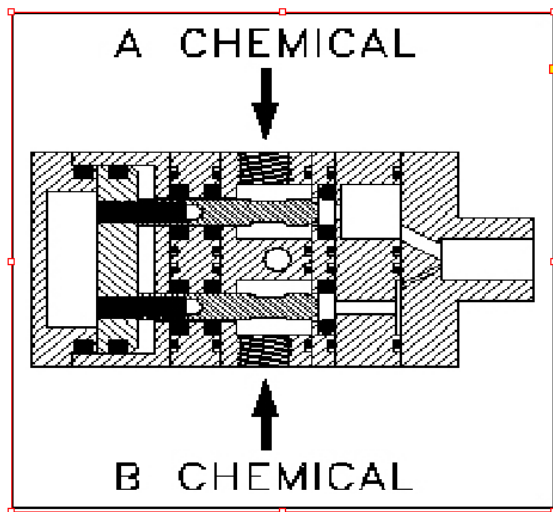
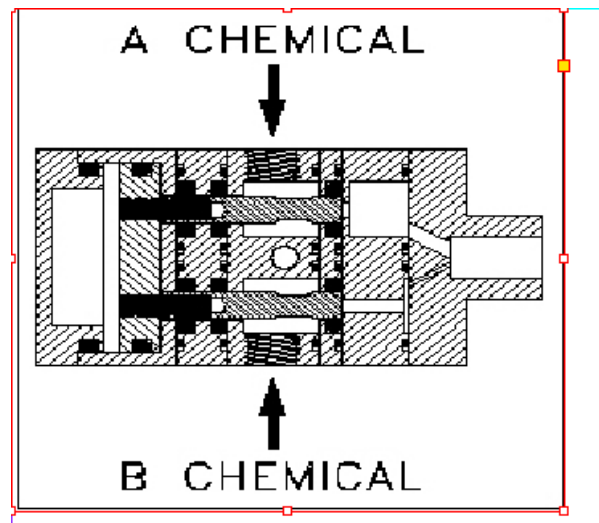


## GENERAL

The dispensing valve assembly is designed to dispense plural component materials such as low or high viscosity urethanes, epoxies, silicones, and foams. The valve provides an on-off function only, it does not meter the chemical components. The metering is controlled by the metering unit or metering pumps. The valve has been engineered to operate with an air or water purge to help eliminate the need for environmentally damaging solvents. A solvent purge can also be used if required. The valve comes with a handle for manual applications.



**FIGURE 1**



**FIGURE 2**

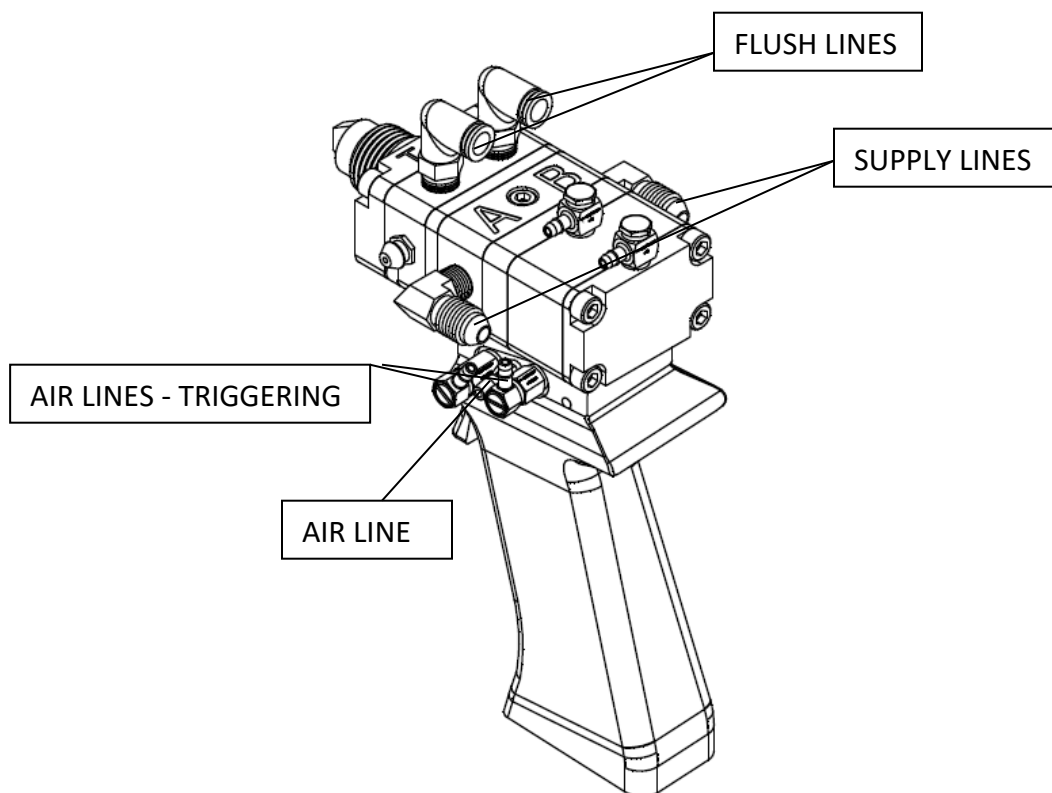
The ON/OFF operation of the valve is controlled by the movement of the piston inside the piston housing. In the OFF position (see Fig. #1), the piston moves forward, and the fluid shafts seat into the O-rings located in the front seal body. In the ON position (see Fig. #2), the piston retracts and the fluid shafts are pulled back which allows the “A” & “B” chemicals to pass through the inlet body, the front seal body, the flush body, the liquid end cap, and the mixing tube.

## INSTALLATION

1. Connect A & B supply hoses to the fittings on the sides of the inlet body (see Fig. #3). The inlet body has the letters A and B engraved on the top of it to ensure the hoses are connected to the correct ports. Between the dispensing valve and the metering unit or metering pumps, the fluid hoses should be kept as short as possible.
2. Connect the main air supply to the middle hose barb on the handle of the dispensing valve (see Fig. #3).
3. For triggering of valve, air lines are connected to hose bars on top of the valve. The hose barb closest to the inlet body is used for opening of the dispensing valve. The hose barb at the back of the valve is used for closing of the dispensing valve.

*NOTE: Air line must have a minimum of 60 psi.*

4. Connect the purge line to the fittings located on the top of the flush body (see Fig. #3).



**FIGURE 3**



## START-UP

1. If using solvent or water purge to clean the mix tube, check purge for proper working conditions.
2. Remove the liquid end cap. The liquid end cap can be removed without disconnecting the dispensing valve from the fluid supply lines.  
**NOTE: There are two o-rings in the flush body. When removing the liquid end cap, the o-rings may come out of the flush body. Ensure o-rings do not get misplaced.**
3. Start metering unit or metering pumps and purge any air out of the "A" and "B" fluid hoses. Ensure steady flows of both chemicals are present.
4. After steady flows of both chemicals are present, spray the face of the flush body with brake cleaner and wipe off. Ensure flush body o-rings are greased and in place.
5. Place the liquid end cap onto the dispensing valve and use the cap screws to attach. Install a new mix tube.
6. Check chemical mix and cure time.

## SHUT DOWN

1. Remove the static mix tube and flush the dispensing valve.
2. Shut off the Nitrosys unit and transfer pumps. Please follow the shut down procedure in the Nitrosys+ system manual. If using a N+ metal gun system, follow the shut down procedures for your specific system.
3. Trigger the dispensing valve to relieve the pressure in the lines between the metering unit or metering pumps and the dispensing valve.
4. Flush the dispensing valve again.
5. Remove the liquid end cap. The liquid end cap can be removed without disconnecting the dispensing valve from the fluid supply lines.  
**NOTE: There are two o-rings in the flush body. When removing the liquid end cap, the o-rings may come out of the flush body. Ensure o-rings do not get misplaced during shut down and cleaning.**

6. Clean the face of the liquid end cap with brake cleaner. Clean the fluid holes with the proper size drill bits. When possible it is recommended to soak the liquid end cap in a suitable solvent overnight.

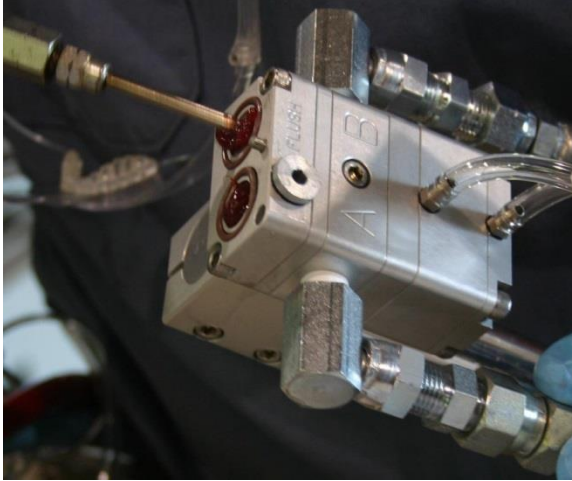


7. Remove the o-rings from the flush body and clean the face of the flush body with brake cleaner.
8. Clean the flush body o-rings with brake cleaner and apply grease to the o-rings. If o-rings are hard or show wear, replace with new ones.



9. Install the flush body o-rings into the pockets in the flush body.  
**CAUTION: DO NOT swap the o-rings. The A side o-ring must stay in the A pocket and the B side o-ring must stay in the B pocket. This prevents the chemicals from contacting one another.**

10. Pack the chemical holes in the flush body with grease to prevent air and moisture from reacting with the chemicals during the shut-down.

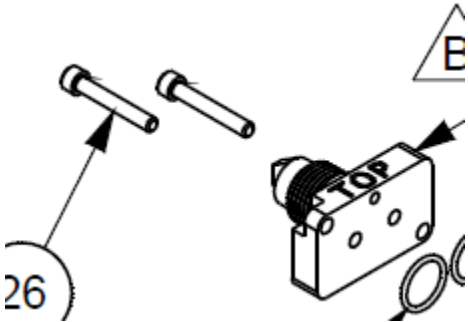


11. Apply a generous amount of grease to the face of the liquid end cap and place the cap onto the dispensing valve. Use the cap screws to secure.

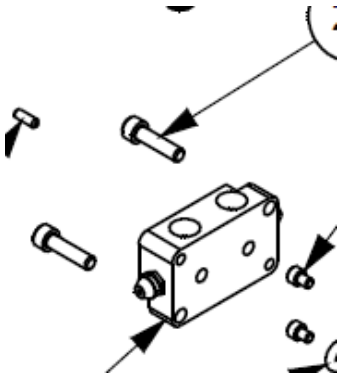


# MAINTENANCE

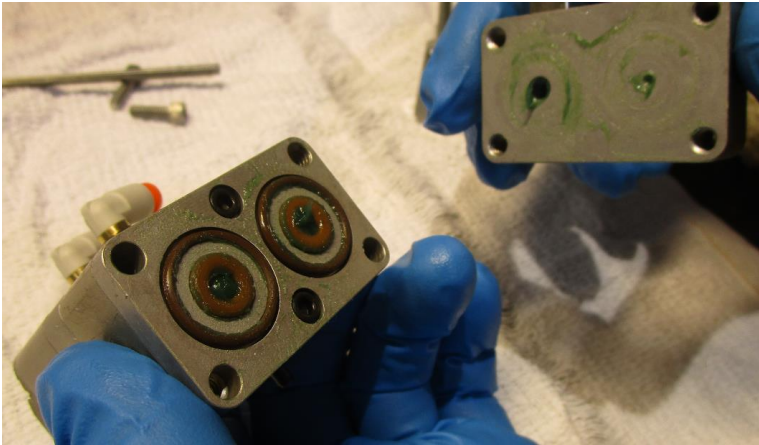
- 1. Remove the screws to separate the liquid end cap from the front of the dispensing valve.



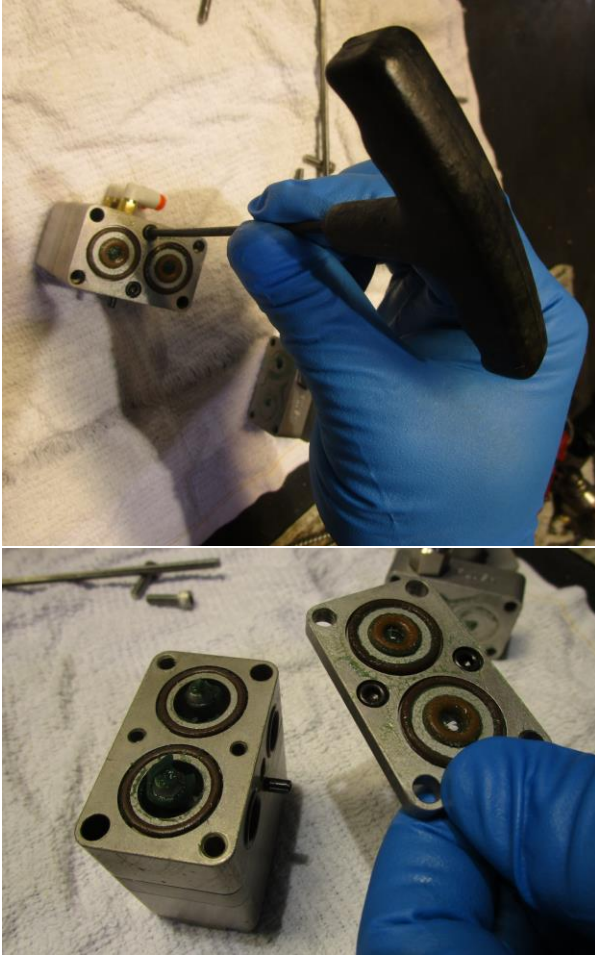
- 2. Remove the screws to separate the flush body.



- 3. Separate the flush body.

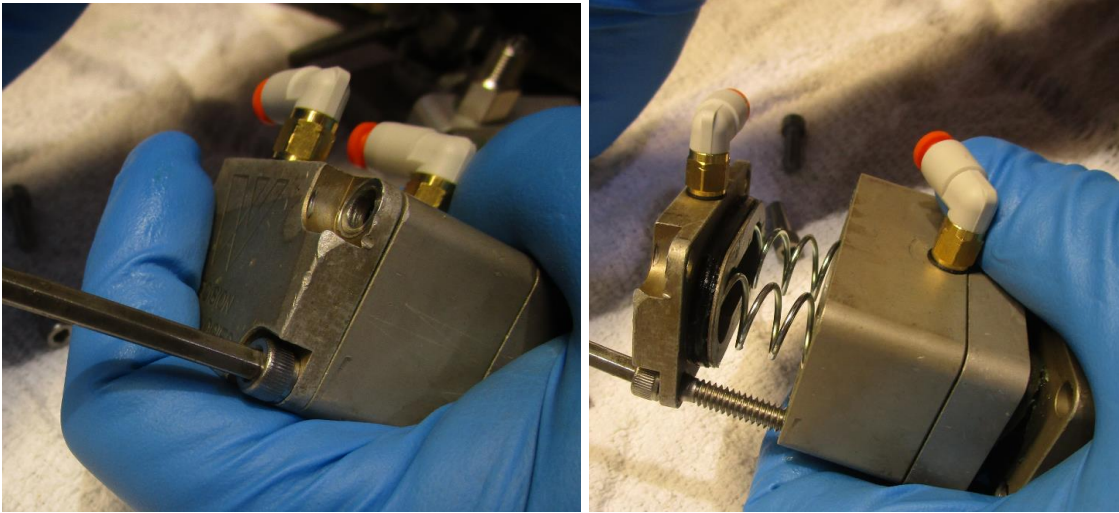


4. Remove the screws to separate the front seal body.

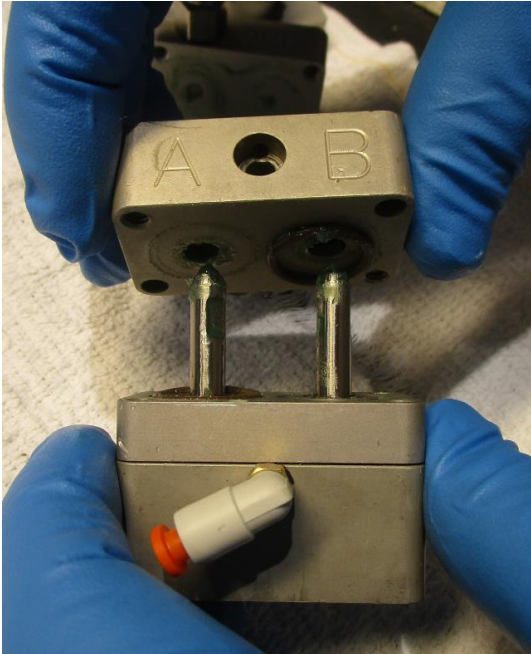




5. Remove the screws to separate the air end cap and springs. CAUTION SHOULD BE USED WHEN REMOVING THE SCREWS. SPRINGS ARE COMPRESSED AND MAY SPRING LOADED.



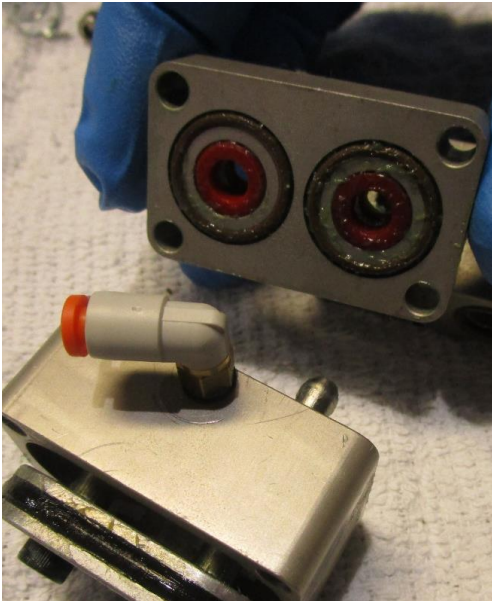
6. Separate the inlet body by pulling it from the shafts.



7. Remove the piston from the piston housing.



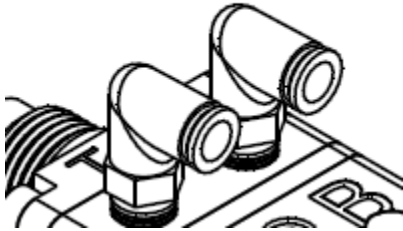
8. Separate the real seal body from the piston housing.



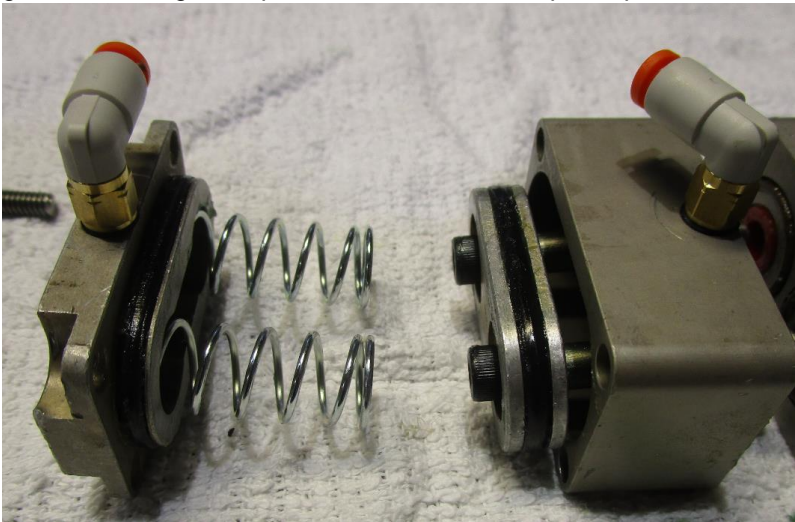
9. Disassembly of the valve is complete. Check all hard parts (i.e. shafts, piston) for wear. Replace or clean if needed. **DO NOT USE WATER WHEN CLEANING DISPENSING VALVE PARTS, O-RINGS, OR SEALS. ALWAYS USE BRAKE CLEANER.**



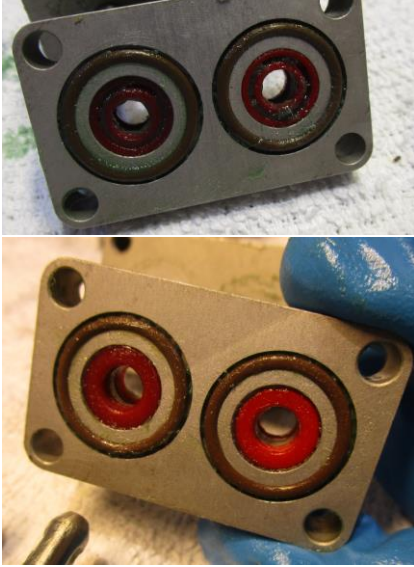
10. Inspect the elbows on the flush body and replace if needed.



11. Clean or replace the 2-216 o-rings used on the air end cap and piston. Apply ample amount of grease to o-rings and place back on air end cap and piston.



12. Replace the o-rings and seals as shown below. Apply an ample amount of grease to o-rings and seals before reinstalling.

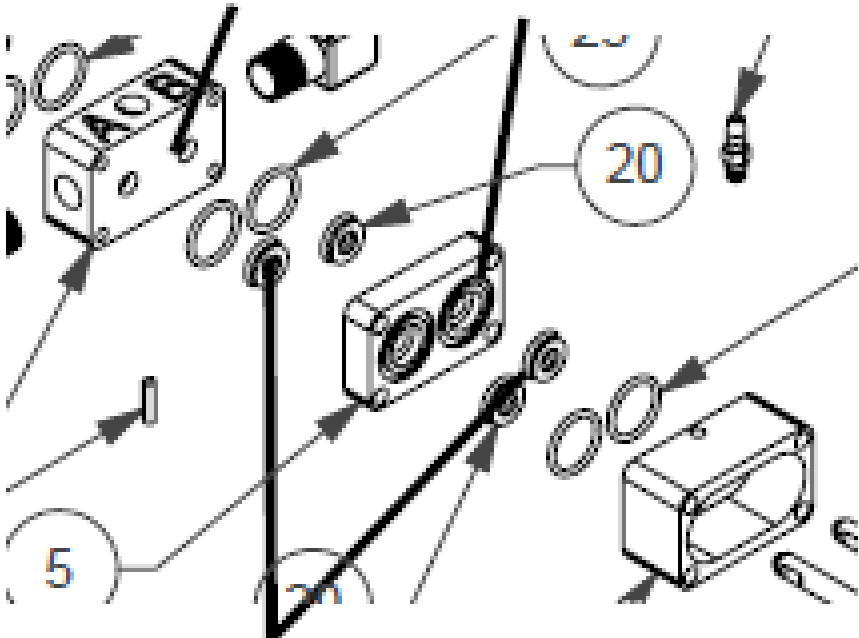


Rear Seal Body

- (4) 2-016 o-rings
- (4) seals

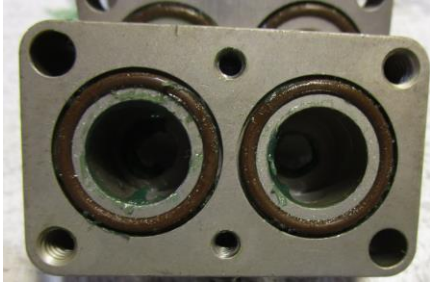
ENSURE THE LIP SIDE OF THE SEALS IS FACING THE INLET BODY.

**INLET BODY      REAR SEAL BODY**



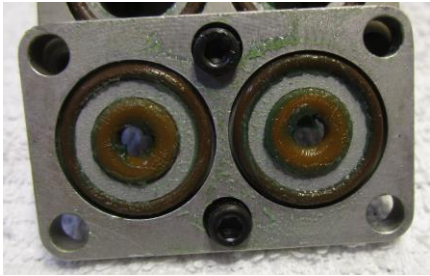
**LIP SIDE OF SEAL FACES INLET BODY**





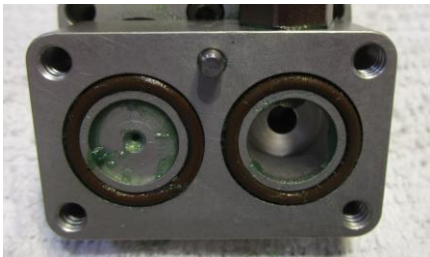
Inlet Body

- (2) 2-016 o-rings



Front Seal Body

- (2) 2-016 o-rings
- (2) 2-201 o-rings



Flush Body

- (2) 2-016 o-rings

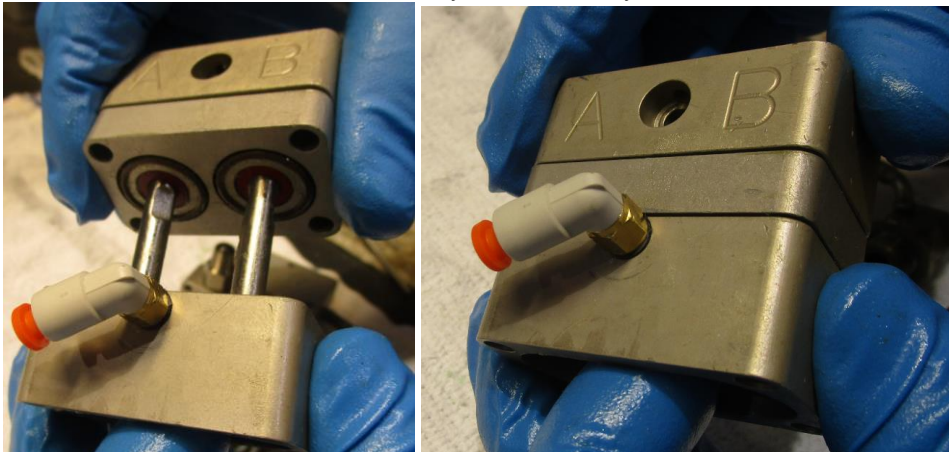
13. Install the piston in the piston housing.



14. Place the inlet body against the rear seal body.

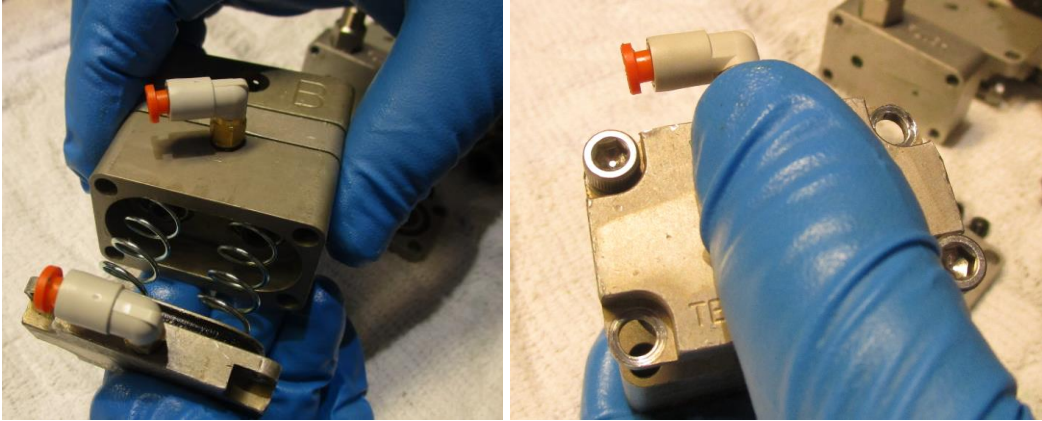


15. Place the shafts into the rear seal body and inlet body.





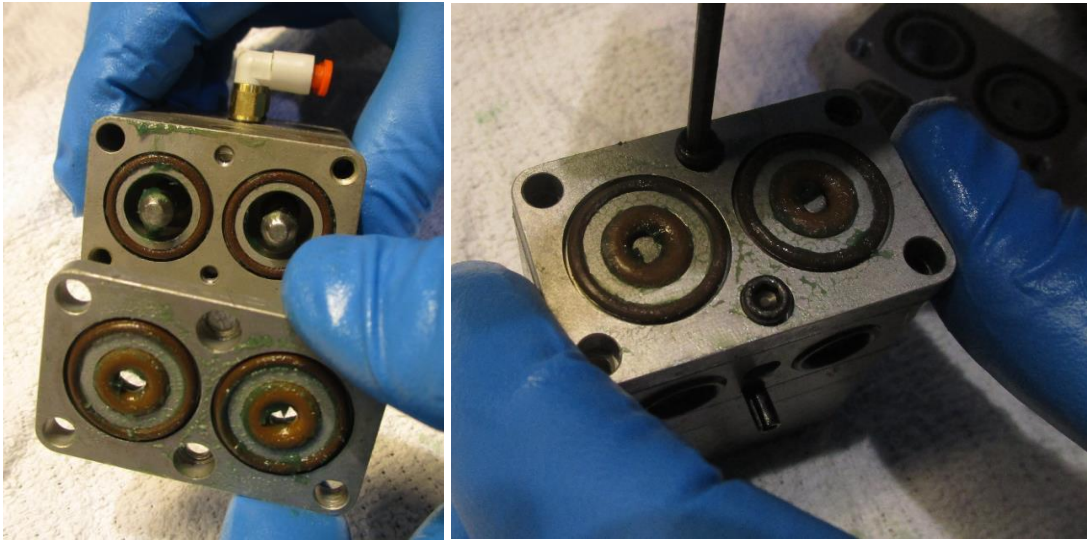
16. Place the springs in the air end cap and place the air end cap against the piston housing.



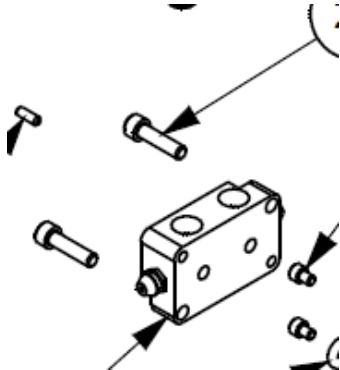
17. Use the screws to secure. Do not over tighten screws.



18. Place the front seal body onto the inlet body. Use the screws to secure.



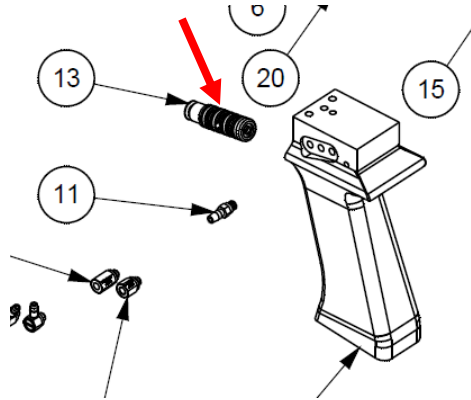
19. Place the flush body up against the front seal body. Use the screws to secure.



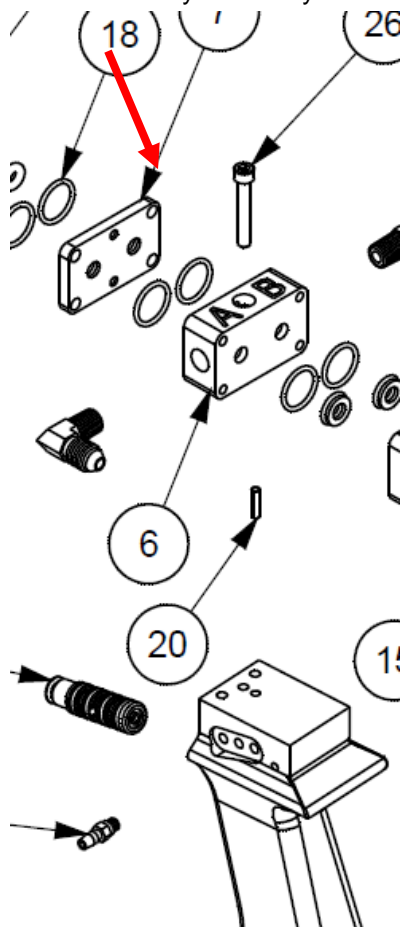
20. Use the screws to attached liquid end cap to the flush body.

## FINAL ASSEMBLY

1. If removed, install the trigger valve in the handle. Use a small amount of grease on the trigger valve to ease installation. Rotate the trigger valve clockwise as it is being pushed in to avoid cutting the O-rings.



2. Attach the body assembly to the handle with the cap screw.



3. Run a piece of tubing from the hose barbs on the side of the valve to the hose barbs on top of the valve. The hose barb closest to the inlet body is used for opening of the dispensing valve. The hose barb at the back of the valve is used for closing of the dispensing valve.



## TROUBLE SHOOTING

The dispensing valve has been designed to provide trouble free operation. However, the dispensing valve consists of mechanical parts and is subject to maintenance and service. In addition, there are times when action is required due to malfunction. The following is a list of potential problems, their causes, and possible solutions.

PROBLEM	CAUSE	SOLUTION
<b>NO FLOW</b>	MIX TUBE PLUGGED	REMOVE AND REPLACE
	LIQUID END CAP PLUGGED	REMOVE AND CLEAN
	TRIGGER VALVE MALFUNCTIONING	INSPECT AND REPLACE IF NEEDED
	LOW AIR PRESSURE	INCREASE AIR PRESSURE
<b>OFF RATIO A:B</b>	LACK OF CHEMICAL	CHECK A & B CHEMICAL SUPPLY
<b>MATERIAL NOT MIXING</b>	FOULED MIX TUBE	REMOVE AND REPLACE
<b>VALVE LEAKS OR DROOLS</b>  <b>IT IS RECOMMENDED TO DO A COMPLETE REBUILD OF THE DISPENSING VALVE WHEN CONSTANT LEAKING OR DROOLING OCCURS</b>	FLUID SHAFTS FOULED OR WORN	CLEAN OR REPLACE
	O-RINGS CUT OR TORN	INSPECT AND REPLACE
	LOW AIR PRESSURE	INCREASE AIR PRESSURE
	AIR PISTON BINDING	INSPECT AND CLEAN.
<b>CHEMICAL BACKING UP INTO OPPOSITE SIDE</b>	TUBE/LIQUID END CAP PLUGGED	INSPECT AND CLEAN, OR REPLACE IF NEEDED.
	DAMAGED SEALS IN FRONT SEAL BODY	INSPECT AND REPLACE
	OUT OF CHEMICAL	CHECK CHEMICAL SUPPLY
	SUPPLY PUMPS MALFUNCTIONING	INSPECT FOR PROPER OPERATION OF PUMPS