



Aero-Tech Laboratory Equipment Company, LLC  
Manufactures Of Precision Instrumentation Equipment For Aerosol  
Development & Production Control  
Proudly Serving The Aerosol Industry Since 1989

## Instructions for the ATL-PDF, Product / Propellant Volumetric Filler

### Mounting & Assembly

Remove the filler from the package. Save the original packaging in case you ever need to ship it. Handle it carefully, it is very top heavy. Bolt it down to the surface it is to be used on with the hardware supplied. Depending on the thickness of the surface, you may need longer bolts. Open the smaller box with the accessories. Install the handle into the lever base & the volumetric adjusting screw on top of the filler. Also the height adjustment clamping handle, with the screw & spring. When adjusting the height **ALWAYS have your hand gripping the column underneath the bottom bracket BEFORE loosening the handle.** The main body of the filler is very heavy & **MUST** be supported at all times when adjusting the height or damage can occur to the operator & filler. Install the nylon air lines to the push-to-connect ports on the back of foot pedal. They are marked with numbers. Make sure each line is in the correct port & pushed all the way in by slightly rotating them. Now install the main air supply in the bottom port on the back of the foot pedal. Have the regulator on your air supply set at about 125 psi. At this point when you operate the foot pedal you will hear air release but the filler should **NOT** operate. Now carefully lift the spring loaded pneumatic micro switch roller lever, now when you operate the foot pedal the filler will take a stroke. This is a safety device that will not let the filler operate unless there is a can attached to it. **ALWAYS** make sure this function is operating correctly before use.

### Using Propellant

**This unit must be in an explosion proof hood with adequate ventilation when using flammable propellants.** In order to gain accurate measurement with all propellants you will need a propellant tank with an extra port, that will allow you to blanket the propellant with 30 psi of nitrogen. These propellant tanks are available from Aeropres & other propellant companies.

### Using The Pressure S.S. Pressure Tank

For accurate filling of any product, thin to viscous. You will need a pressure tank. The tank comes with a pressure gauge, blow-off relief valve, S.S. dip tube & S.S. baffle. It has 5 ports total, 4 on top & 1 on the bottom. For thin materials you can use the S.S. dip tube or the bottom port for your exit. For viscous materials you will need to have the S.S. baffle in place inside the tank & use the bottom port. The tank has a pressure rating of 130psi. @ 100 degrees Fahrenheit. For most heavy viscous like cold cream consistency you will only need 30 to 40 psi. Attach your product line to the dip tube port or from the bottom of the pressure tank. Attach the other end to the valve in the side of the plate between the filling chamber & Safety switch assembly.

### Installing The Correct Filling Adapter

First remove the 3 springs on the safety switch housing by compressing them & slipping them out of the seats they are in. Now with the springs removed, lift the plate the springs were holding down. You will see 2 socket cap screws, remove them with a 3/16 allen wrench & remove the entire assembly. Use Teflon tape on the end of the valve and install the correct filling adapter for the valve being used. Hand tight should be sufficient. Re-assemble the safety housing & install the 3 spring in their seats. Make sure it operates correctly as described above.

### **Adjusting The Height**

With one hand grabbing the column against & under the bottom bracket, loosen the handle with the other. Supporting the filling head with one hand raise it high enough to clear the can being used. Place the can with the valve crimped it on the lever base. Now lift the lever to raise the can to the filling adapter. Make sure the filling adapter is all the way in. Depress the lever, it should be all the way depressed & the can should be centered on the lever base. Lock the adjusting clamping handle. Now when you lift the can it should center itself & guide its way into the filling adapter. A lot of pressure is **NOT** required. You do not want to damage the valve during filling. That is why when adjusting the height, the lever base must be all the way depressed. This sets the correct amount of height for actuation & filling through the valve.

### **Adjusting The Fill**

The circular handle on top of the filling head, adjusts the stroke & amount of product or propellant to be dispensed. The amount can be measured by weight or measurement. To estimate by measurement use the following numbers in inches.

.02208 = 1 ml

.2208 = 10 ml

2.208 = 100 ml

4.416 = 200 ml

These numbers are meant to be used for a good estimate. Your final results for accuracy should be achieved by weight.

### **Cleaning & Maintenance**

To clean the filling chamber, flush a few times with water or soluble solution for the product being used. This will clean out the valve. Now depress the foot pedal with the safety switch depressed. The filler will take a stroke, hold it there & disconnect the air. Now remove the safety switch assembly as described above. Now remove the 4 socket cap screws holding the bottom plate to the filling chamber. Make sure you have enough room to remove the cylinder. Carefully & slowly slide the cylinder straight down off the piston. **If you do not pull straight down it may score the inside & damage the cylinder.** Now you can clean the cylinder with a soft brush or cloth, also the base plate & piston. When re-assembling the cylinder, lower the height so you have about a ¼ inch of space between the cylinder & lever base. Place some mineral oil on the o-ring and inside of the cylinder with your finger. This will help the cylinder on to the o-ring. Place the cylinder back on the lever base. Raise the lever base, make sure the cylinder is centered to the piston. Apply pressure to the lever base & rotate the cylinder at the same time. It will go over the ring. Carefully & slowly lift it straight up into the bottom bracket. Make sure it is seated correctly. Replace the screws in the bottom plate, encapsulating the cylinder. Make sure you tighten all 4 screws evenly, a little at a time until good & snug. Replace the correct filling adapter, safety switch assembly & you are ready to fill again.

**For any questions or concerns, please contact us for advice & support. (607)-397-9269**

### **Disclaimer**

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