

## Turbulent Fluid Flow (TFF) Instructions–PUMP for Drying

**Product Item Codes:** DRY-10, AUX-10, F-CONN-100, TFF-PMP, PXD-02, TFF-PMP-HK, TFF-ST-1, TFF-ST-3

**Intended use:** For drying Olympus Colonoscopes/Gastrosopes after cleaning.

**Key Specifications:** Latex free; non-sterile; single use.

### Setup:

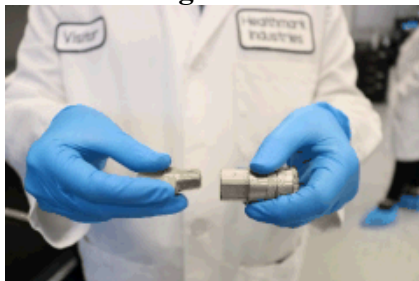
1. Disconnect all three (3) pieces of the connection kit. (Figs. 1a, 1b, 1c, 1d, 1e).



**Figure 1a**



**Figure 1b**



**Figure 1c**



**Figure 1d**



**Figure 1e**

2. Using the three (3) pieces to create a connection with the 3-foot hose and the air source.
  - a. It is not necessary to use all 3 pieces.
  - b. Use the appropriate connector that will connect with the facility's air source. (Figs. 2a, 2b).



**Figure 2a**

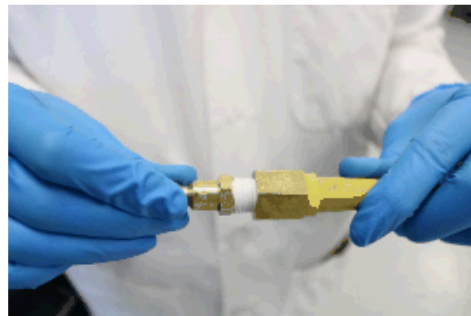


**Figure 2b**

- c. Use PTFE tape around the threading, and a wrench to ensure a tight seal. (Figs. 3a, 3b, 3c).



**Figure 3a**

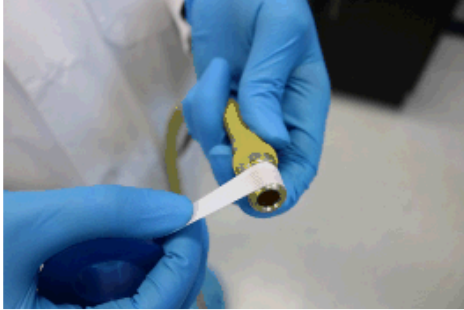


**Figure 3b**



**Figure 3c**

3. Once the connection is assembled, connect to the high efficiency particulate air (HEPA) filter.
  - a. Replace the HEPA filter once a year.
  - b. Use PTFE tape around the threading for a tight seal. (Figs. 4a, 4b, 4c, 4d).



**Figure 4a**



**Figure 4b**

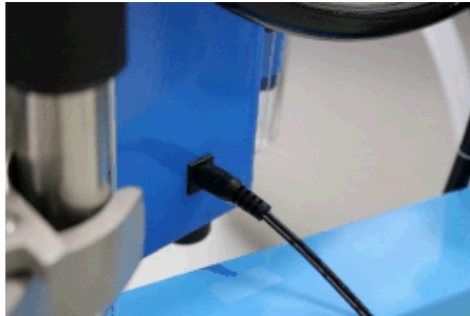


**Figure 4c**



**Figure 4d**

4. Plug the AC adapter into a power outlet and into the back of the Pump. (Fig. 5).



**Figure 5**

5. Power the Pump ON with the switch located on the front left side of the unit.

**Hookup and Verification Kit Components:**





### Verification Kit:

1. Check the pressure every day the Pump is being used.
2. Put PTFE tape on the pressure gauge and secure to the 1-foot hose. (Figs. 6a, 6b, 6c).



**Figure 6a**

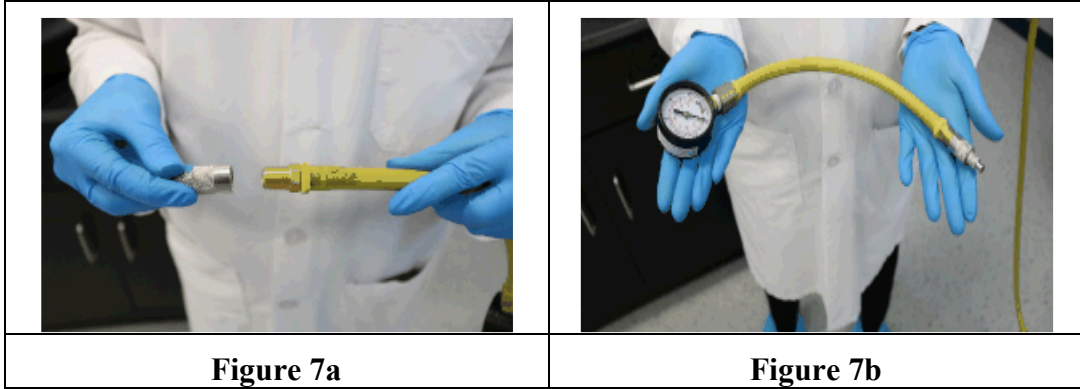


**Figure 6b**

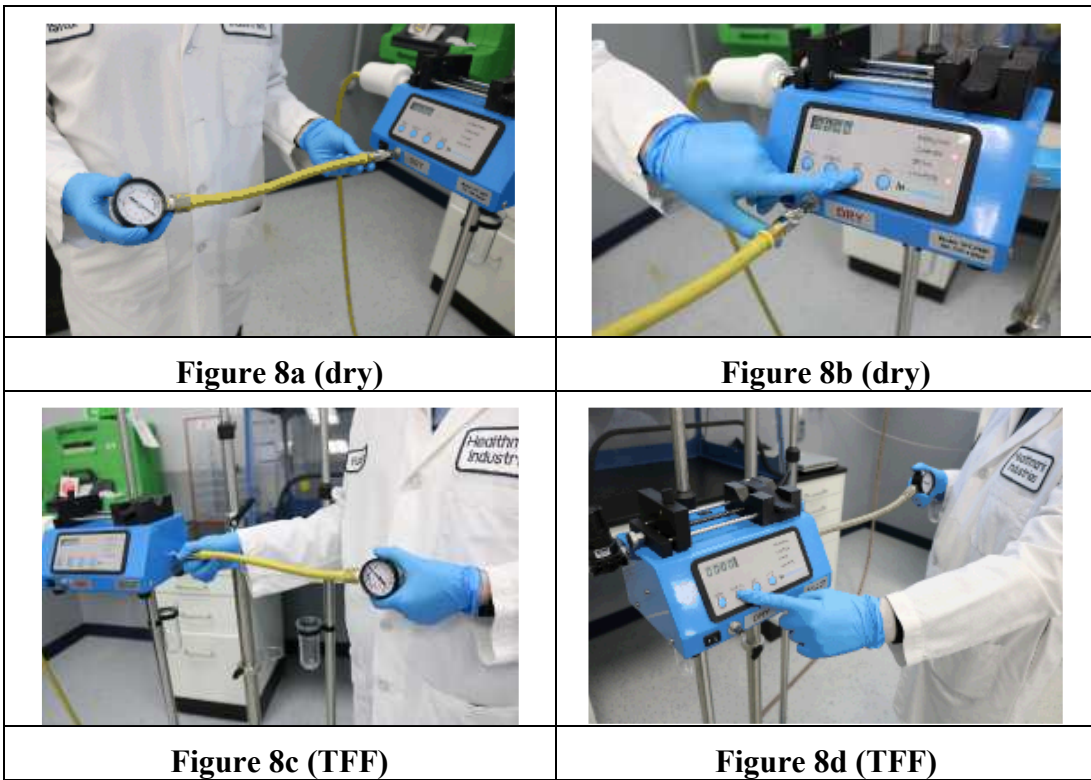


**Figure 6c**

3. Use one (1) of the 2 luer locks to connect to the 2 ports located on the pump. (Figs. 7a, 7b).



4. Hit the **Dry** button and read the pressure. (Figs. 8a, 8b, 8c, 8d).



5. Pressure should be between 17–28 psi. (Fig. 9).



**Figure 9**



6. Record pressure on the calibration log.

### Using the Pump:

1. If you are using the EndoDolly™, lower the center pole enough to place the endoscope on the EndoDolly™ (with the universal cord on the right pole and the control section of the endoscope on the center pole) not allowing the distal end to touch the floor.
  - a. If the endoscope has an elevator mechanism, make sure it is in a flat position. (Fig. 10a, 10b).
  - b. Pump may also be used with scope lying on flat on countertop.



**Figure 10a**



**Figure 10b**

2. Place the gas cap on the electrical connector to prevent water from getting into the universal cord. (Fig. 11).



**Figure 11**

### Drying:

1. Thread the clear screw tip end of the dry tube onto the F-block (Fig. 12a) and insert it in the air/water and suction ports (Fig. 12b). Ensure the latch is on by pressing in with thumb. Attach white cap on the biopsy port. (Fig. 12c).



**Figure 12a**



**Figure 12b**



**Figure 12c**

2. Plug the end of the white connector tubing on to the front port of the Pump. (Fig. 13).



**Figure 13**

3. Fill out the Dry Kit Label and attach it to the tubing.
4. Press “**Dry**” to begin the drying process. This will run for 10 minutes. Green light will show next to “**Drying**”. (Fig. 14).



**Figure 14**

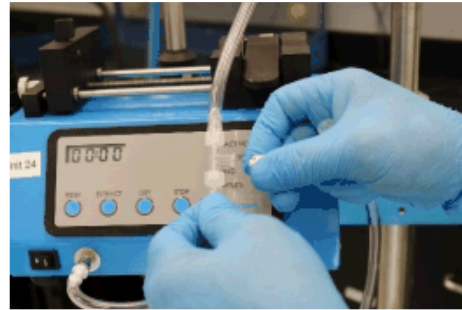
### **Auxiliary Kit:**

1. If drying an endoscope with an auxiliary water inlet, open a new auxiliary kit and connect tubing to the water inlet port. Disconnect white cap from the dry tube’s T-connector and

connect the Auxiliary tube (leading back to the water inlet). Reattach the tube to the connector by turning it with a half turn. (Fig. 15a, 15b, 15c).



**Figure 15a**



**Figure 15b**



**Figure 15c**

2. During the drying process, check for any blockage. Feel if air is coming out of the dry cap on the biopsy valve, suction valve, air/water valve, and distal end. (Fig. 16a, 16b).



**Figure 16a**



**Figure 16b**

3. Biopsy port dry cap will have restricted air coming out of the cap. This is to prevent water droplets.
4. Once the 10-minute drying time is finished, “Complete” will light a solid red dot. Press **Stop** and turn off the Pump. (Fig. 17).





**Figure 17**

**Cleanup:**

1. Depressurize only when disconnecting from air source.
2. Once cycle is complete, press “**Stop**”, then press “**Reset**”.
3. If using an EndoDolly™, lower the pole and remove the tubing and connectors from the endoscope.
  - a. Withdraw white cap from the biopsy port.
  - b. Remove F block from the air/water port. (Fig. 18a, 18b).
  - c. Detach tubing from the suction port.



**Figure 18a**



**Figure 18b**

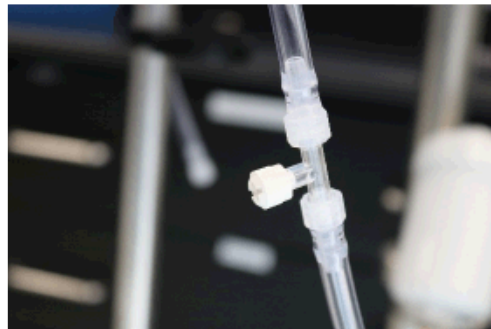
4. If drying an endoscope with an auxiliary water inlet:
  - a. Remove the connector and tube from auxiliary water inlet.
  - b. Replace the white cap back on the T-connector. (Fig. 19a, 19b, 19c).



**Figure 19a**



**Figure 19b**



**Figure 19c**

5. *Optional:* You can leave the dry tubing attached to the Pump for up to 24 hours if you replace the white cap in place of auxiliary tube attachment on the T-connector. The F-CONN needs to be replaced with every scope.

### Preparing Storage for extended Non-Use periods

When you have completed your tasks for the day with the Pump, follow the steps below:

1. Turn off the air supply source.
2. Remove the dry tubing from the front port of the Pump (Fig.20) and press “**Dry**”.



**Figure 20**

- a. Decompression will take about 10 to 20 seconds.
- b. Press “**Stop**” to turn off the Pump when the air stops flowing. (Fig. 21).



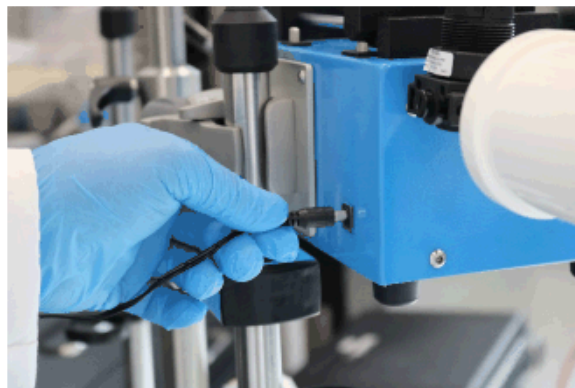
**Figure 21**

3. Disconnect the air supply source’s hose from the left side of the Pump (Fig. 22).



**Figure 22**

4. Finally, remove the AC adapter from the back of the Pump (Fig. 23).



**Figure 23**

**Special Warnings and Cautions:** Do not try to remove connections when the air source is still on. Use caution around pressured air.

**Cleaning-Manual:** Use a neutral pH detergent/water or wipe down pump with 70% Isopropyl Alcohol.

**Disinfection:** Wipe down the pump with 70% Isopropyl Alcohol.

**Maintenance, Inspection, and Testing:** Replace HEPA filter once a year. Take daily pressure readings.