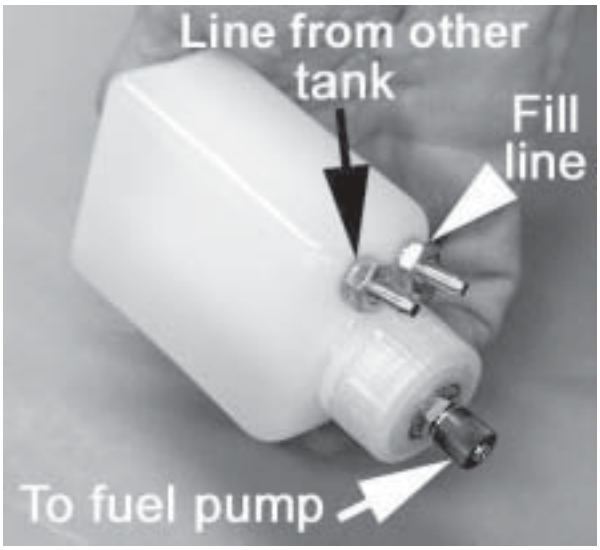
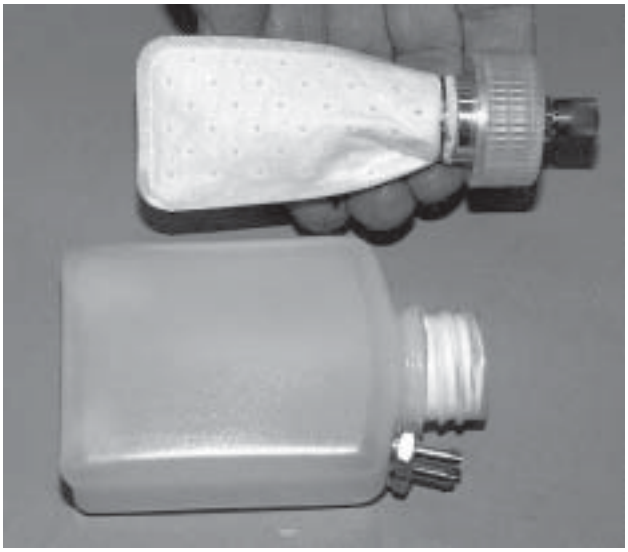
Ultimate Air Trap - U.A.T.

BVM #6044





This shows the proper orientation of the sack in the tank. It is best to not open the tank unnecessarily so as to not disturb this setting. Note the teflon seal on the bottle cap threads.

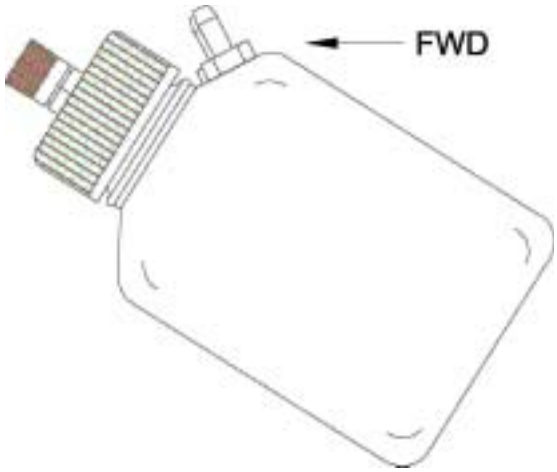
It is best to orient the UAT with the cap facing forward, brass nipples up and the front end elevated about 20 degrees or more. This positioning will allow the fueling procedure to eliminate all but a quarter size air bubble.

It is best to locate the UAT where it is visible with the hatch off.

Apply a wrap of safety wire to the 6mm tubing on the brass fittings. Periodically check that the plastic cap is hand tight on the bottle neck.

It is normal for the bottle and the internal bag to turn brown with use and age. This is the affect of ultra violet light on the turbine oil.

Note that a mechanical on/off valve (BVM #5315) is located between the U.A.T. and the fuel pump.



- Close this valve upon engine shutdown.
- Be sure that it is closed during fuelling operations.
- Open valve just prior to engine start.
- Close immediately if engine start produces fire.

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Fueling the System
main on/off valve closed

Fuel the entire system through the 3rd line in the U.A.T. It is normal that a small air bubble be trapped at the top of the U.A.T. It is normal for the U.A.T. to swell slightly during the pressure fueling process. Be certain to reinstall the fuel line plug. As this line ages, clip off about 1/2" to keep the seal onto the plug effective.

First engine start with U.A.T.

The fuel sack in the U.A.T. that does all the work must first get totally saturated with fuel. It is normal for air to exit the U.A.T. to the pump on the first start and run up. Simply allow the engine to run at low power for about 1minute, then run it at full power to check that all of the air is cleared from the sack. Unless you run the system completely dry, this procedure is not necessary on future start-ups.

It is normal for the U.A.T. sides to suck in a bit during full power run-ups. Make a full throttle run up and check the size of the air bubble in the U.A.T. If it is increasing, this is indicative of an air leak in the model's fuel system prior to the U.A.T.

Defueling - If it is your normal practice to defuel the model at the end of the day, leave the fuel in the U.A.T. for easiest next start-up procedure. Of course, if the model is to be air transported drain all of the fuel system completely.

Post Flight Check

The size of the air bubble in the U.A.T. after flight relative to the size of the bubble prior to flight indicates how much air the U.A.T. has trapped during aerobatic maneuvers. If the air bubble exceeds 1/4th the volume of the U.A.T. there may be a problem in the model's fuel system.

The U.A.T. will continue to deliver airless fuel to the pump as long as there is at least 1oz of fuel in it. The U.A.T. has been tested with Kerosene, gasoline and alcohol fuels containing some oil. It is designed to work with a pressure pump system.

Additional Operating Tips

- *First start-up with an electric auto-start:*
  Fill the system through the U.A.T.'s third line. Then connect the filling fuel pump to the output tube of the U.A.T. (The tube that goes to the engine fuel pump.) Run fuel through the U.A.T. until no bubbles can be seen in the exit tube.

- *Be sure that the 6mm fuel tubing has a round, not oval cross section.*

- *During the first engine run, set the throttle to about one-half power and shake the model observing that no bubbles exit the U.A.T. This may require a few minutes of running until the sack in the U.A.T. is completely air free. Follow this procedure also if the fuel system was completely drained for transit.*