

# **AIRWOLF FILTER, CORP**

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### FOR REFERENCE ONLY Date: 6/26/2024

## AirSep Baffle Kit Installation Tips:

#### Why is the baffle kit fitting needed?

The baffle kit fitting is used when a vacuum pump is being removed from the engine or as the standard configuration on aircraft that do not have a vacuum pump. The hot ram air from the cylinders will help reduce condensation and will also create a venturi effect in the air syphon pump to assist the gravity flow of the oil returning to the engine.

Refer to Installation Manual AFC-W360, as revised, available on our website. See Page 6 for a schematic of the installation and Page 11, para. 8a for written instructions.

#### **Installation Tips:**

- 1. Identify which cylinder is closest to the rear engine baffle.
- 2. If possible, position the fitting hole about an inch above the cylinder fins and in line with the spark plug area of the cylinder to gain the hottest ram air from the top of the cylinders.
- 3. Drill a 7/8" hole to utilize the AN841-10D fitting.

See customer supplied photos on the back of this page for installation examples.





Revision: D

Applicability: SCHEMATIC OF TYPICAL AIRSEP INSTALLATION ON AIRCRAFT WITHOUT VACUUM PUMPS



#### **Applicability: Engine Baffle Mounted Airsep**

*Note A:* Some hoses or wires may have to be rerouted so the air/oil separator will fit into position. *Reference and material per AC 43.13-1B & 2A* 

WARNING: ALL HOSES SHALL BE LOCATED AT LEAST 4.0" FROM ANY HEAT SOURCE LIKELY TO CAUSE VAPORIZATION OF THE OIL

- 1. Gain access to engine compartment.
- 2. Using the W-2011 bracket as a template, center the bracket on the LH or RH rear engine baffle and drill four 3/16" holes.
- 3. Mount the W-2011 bracket on the engine baffle, using the W-2150 doubler positioned on the fwd side of the engine baffle and loosely hold in place with 4 ea #10 screws, washers and locknuts.
- 4. Slide the 4-1/2" clamp between the W-2011 bracket and the engine baffle to be used to hold the AirSep.
- 5. Tighten the four #10 screws installed in step #3 at this time.
- 6. Mount AirSep to W-2011 bracket and tighten the 4-1/2" clamp.
- NOTE: Bottom drain line of the AirSep must be positioned so that it is above the level of the entrance to the engine. Oil must be able to drain downhill.
- NOTE: If the bottom drain is not "clocked" correctly for the aircraft, loosen the top 5/16-24 Nut. Then, holding the can top, twist the can bottom to get the correct orientation to provide the simplest flow to the engine. Then retighten the nut to no more than 25 in/lbs.  $\pm$  5.
  - 7. Using a piece of MIL6000 hose, connect the inlet of AirSep to existing engine breather line and secure with QS100 clamps.
  - 8a. If no vacuum pump installed on the aircraft, drill a 5/8" hole into the engine baffle, Install an AN841-10D or equivalent fitting and AN6289-10D Nut. Run a piece of 5/8" MIL6000 hose from the fitting in the baffle to the Air-Tee, and from the Air-Tee to the 5/8" inlet on the AirSep to gain hot ram air from top of cyls.
- NOTE: Make sure the word "Flow" on the Air-Tee is pointing towards the AirSep.
  - 8b. If a vacuum pump is installed on the aircraft, use a piece of MIL6000 hose to connect the 5/8" exhaust fitting on the vacuum pump to the Air-Tee, and from the Air-Tee to the 5/8" inlet on the AirSep to gain hot vacuum pump exhaust
  - 9. Determine the method of returning the recovered oil in the AirSep, to the engine. Connect an Air Syphon pump to the engine, I/A/W the schematic shown on page 9.
  - 10. Connect the 5/16" branch of the Air Syphon Pump to the 5/16" branch of the Air-Tee.
  - 11. Connect the 1/4" branch of the Air Syphon Pump to the 1/4" drain on the AirSep
  - 12. Connect a length of CAT-7 hose to the bottom of the AirSep and secure with a 1-3/4" clamp.
  - 13. Secure the CAT-7 hose to an engine mount, firewall or structure using a -30 Adel Clamp.
- NOTE: Do not allow the CAT-7 hose to extend out the bottom of the engine cowl. If you fail to heed this advice and allow the 1-3/4" duct to stick into the high velocity slip stream, the air/oil stream exiting the crankcase breather tube will not have proper time to coalesce inside the Air/Oil Sep and this oil laden air <u>will</u> discharge onto the belly of the aircraft, creating the same problem that the Air/Oil Sep was thoroughly designed to stop.
  - 14. Determine weight & balance, initiate Form 337, and update the equipment list