



VAC-2

QUICK FACTS

THE ORIGINAL VAC-2 INVERTED OIL PICKUP

The innovative VAC-2 is the original inverted oil pickup pad, providing a direct replacement for the Lycoming vacuum pump adaptor. Precision CNC machined from solid billet aluminum, its unique design offers both a standard vacuum pump pad adaptor AND provision for inverted oil pickup. The vacuum pump pad is often used for one of our spline-driven alternators, such as the SD8 or BC410-H.

The VAC-2 permits better engine lubrication and reduced prop surges compared to oil systems using a firewall-mounted "T"-fitting. Ships complete with integral oil seal, gaskets, and factory-installed 90° fitting. Available for both 4-cylinder and 6-cylinder Lycoming engines. Just supply a standard Lycoming vacuum pump gear and thrust washer (not included), and the VAC-2 is ready to mount. Weight: 11.5 ounces.



FEATURES

- Unique dual-purpose design
- Direct replacement for Lycoming vacuum pump pad adapter
- Permits retention of a standard vacuum pump — or use of a B&C spline-driven alternator
- Integral oil seal
- Precision CNC machined billet aluminum
- Plated for corrosion resistance
- Includes gaskets and 90° fitting (factory installed)
- Weight: 11.5 ounces

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ENHANCED ENGINE LUBRICATION

Not every Lycoming engine is suited to aerobatic maneuvers. Those engines that have been rated as "aerobatic" (signified by an "A-" or "AE-" model prefix) are uniquely equipped for negative-G and inverted flight. Among the various provisions needed for such operation are measures to insure adequate engine lubrication.



Two different approaches to engine lubrication have been employed for aerobatic engines over the years. The first utilizes

an external oil tank with special inlet and outlet provisions, as well as special breather connections. Engines that use this particular system are typically known as "dry sump" engines. The second (and more common) approach to aerobatic engine lubrication uses an internal oil reservoir at the base of the crankcase, with a special ball valve, pickup lines and breather connections. This system is often referred to as a "wet sump" engine.

The VAC-2 inverted oil pickup was designed for use on "wet sump" engines. It improves the delivery of engine oil during inverted flight by positioning the inverted oil pickup on the vacuum pump accessory

PRICING

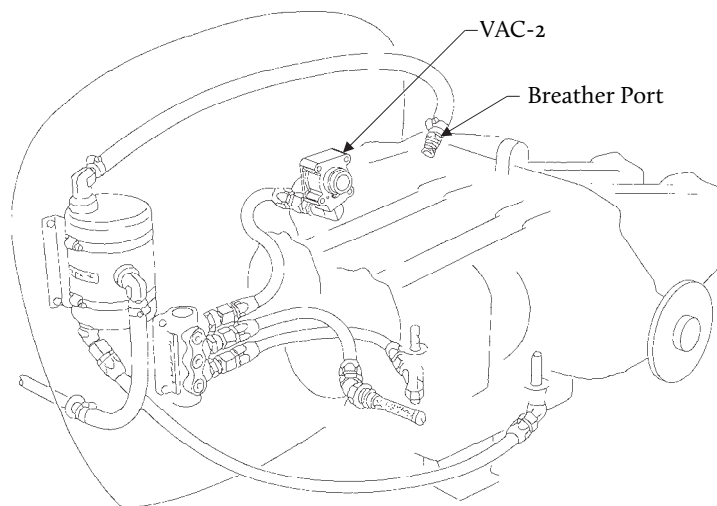
VAC-2/4 (Homebuilt), <i>fits 4-cylinder Lycoming</i>	\$198
VAC-2/6 (Homebuilt), <i>fits 6-cylinder Lycoming</i>	\$198

ALSO OF INTEREST

72970 Used Vacuum Pump Drive Gear, 4-cyl. <i>(limited availability)</i>	Call
72974 Used Vacuum Pump Drive Gear, 6-cyl. <i>(limited availability)</i>	Call

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VAC-2 INSTALLATION DIAGRAM



This part is not STC'd or PMA'd, and is sold for amateur-built aircraft only.

FLEXIBILITY TO SUIT VARIED APPLICATIONS

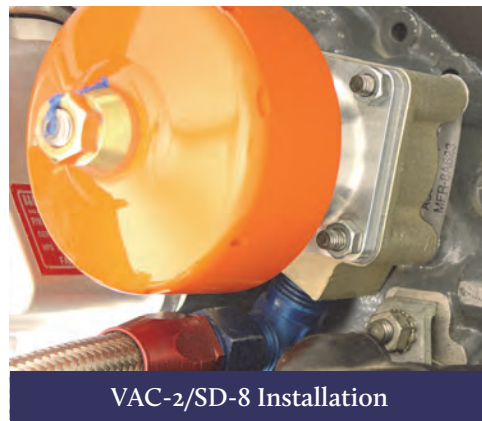
Flexibility is an asset when weight and space are at a premium. After all, what suits one aircraft may prove completely unworkable in another.

A unique advantage of the VAC-2 — aside from improved lubrication during inverted flight — is that it retains a fully-functional vacuum pump pad adaptor. This permits the use of a vacuum pump, a B&C spline-driven alternator, or nothing at all (with an accessory pad cover-plate). That's flexibility.

For combined operation on aerobatic

aircraft, a popular choice is to install the VAC-2 in conjunction with our remarkably lightweight SD-8 Alternator. This provides a time-proven pairing of components, with many hundreds of installations in aerobatic aircraft worldwide. Similarly, matching the VAC-2 with our BC410-H Alternator provides an unusually robust combination — inverted oil pickup AND 20 to 30 amps of electrical output (depending on your engine's "cruise" RPM).

Flexibility — a valuable asset, indeed.



ENHANCED ENGINE LUBRICATION (CONTINUED)

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pad, and connecting this directly to the ball valve assembly. This direct connection improves upon the stock, or commonly-added, inverted oil system by eliminating a firewall-mounted T-fitting used to



route vital engine oil — somewhat indirectly — through the oil breather line.

The difference in relative performance is most clearly evident in flight. Aircraft with oil systems using a T-fitting typically experience "low" oil pressure for three- to five- seconds after rolling inverted (the difference in oil pressure is clearly discernable simply by *listening* to the engine). In contrast, aircraft equipped with the VAC-2

encounter only a momentary oil pressure decrease as the ball valves in the oil valve assembly switch ends. As a result, the engine receives more consistent lubrication — preserving the critical hydrodynamic oil film between internal components. "Prop surges" with constant-speed propellers are also reduced.

For aerobatic engines, these are crucial factors in safeguarding engine life and maintaining peak efficiency.