

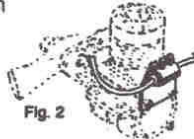
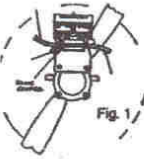
Perry A division of

Conley Precision Engines, Inc

- The Model VP-20 (Blue) pump is intended for alcohol based fuels only.
- The VP-22SG (Gold) pump is intended for gasoline, kerosene and smoke fuels

1. HOW IT WORKS

Your new Oscillating Pump is energized by the oscillations of the engine. Each time the engine fires, it reacts with a short rotation in the direction opposite of the propeller rotation. It is this movement that causes the pump to operate. The cylinder of the pump must always be mounted in line with the arc of the propeller and about 1½ inches from the crankshaft center line. See Figure 1. Your pump will not work if mounted with the pump cylinder in line with the center of the airplane.



2. INSTALLATION INSTRUCTIONS

- a) To mount the pump you will need about 1" of space between the engine and the firewall. Remove the two upper backplate screws from the engine and mount the pump as shown in Figure 2. Be sure to tighten the screws so there is no chance that the pump will come loose.
- b. The pump can also be mounted under the engine using the two lower screws if space does not permit upright mounting or when a rear exhaust engine is used See Figure 3



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Visit our ¼ scale V-8 engine web site:
www.Conleyprecision.com

For further information concerning all Perry products visit our web site:
www.perrypumps.com

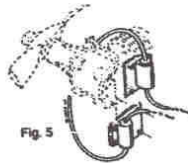
Conley Precision can custom fit a carburetor for almost any engine.

- c. The pump will operate properly when engines are side mounted, inverted, as well as upright. See figure 4 and 5.



- d. Now connect the fuel line between the hex screw and the carburetor. Connect the fuel tank to the other end of the pump

- e. The pump must be primed when new. To do this simply place your finger on the carburetor intake with the needle valve and barrel in the open position and rotate the propeller until fuel appears in the fuel line between the pump and carburetor. The pump will retain its prime since fuel can flow only in the direction indicated by the arrow.



3. ADJUSTING THE PUMP

- a. The enclosed pump is a Series 88 Oscillating Pump. Its adjustments are different from all previous models. To increase pumping volume, the hex screw must be turned counter-clockwise. Open the throttle completely and adjust the needle valve for the correct mixture. If the fuel pressure appears to be too strong, turn the hex screw clockwise ½ turn at a time until the desired pressure is obtained. The carburetor barrel can now be closed and final carburetor adjustments made for proper idle. **TURNING THE HEX SCREW CLOCK-WISE DECREASES PRESSURE. COUNTER-CLOCK-WISE INCREASES PRESSURE**

4. SOME DO'S AND DON'TS

- a. Do not use gasoline or other mineral-base fuels with your VP-20 pump as the valves within the pump are made of silicone and are not compatible with these fuels.
- b. Never Mount the pump with its cylinder in line with the airplane's center line

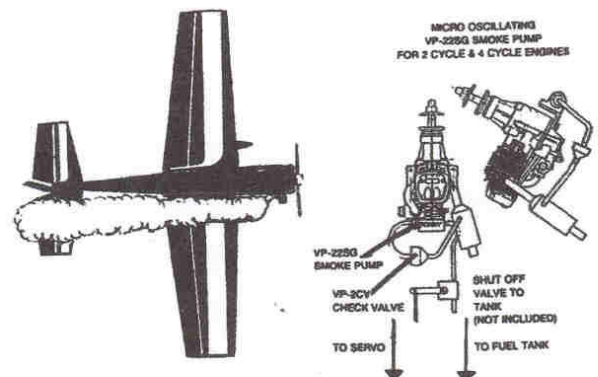
- c. Your pump has been permanently sealed to prevent leaks. Do not attempt to take it apart; to do so could destroy it.

- d. **ALWAYS USE A GOOD FUEL FILTER BETWEEN THE PUMP AND FUEL SUPPLY.**

- e. After installing your pump check to see that it is not rubbing against the firewall, or bumping against the cowl, etc.

- f. When you plan on not using your pump for an extended period, seal it with a short piece of fuel line connected to the inlet and outlet fitting. This will prevent drying out and will keep the pump clean

- g. Never apply compressed air through the pump. Avoid removing the hex volume control screw from pump to prevent cross threading when reinstalling.



The VP-20V Check Valve is necessary to use between the pump and the muffler to prevent muffler pressure from inhibiting the flow of the smoke pump. Use tubing that is compatible with the fuels you are using. Such as neoprene for kerosene, oils and gas.

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