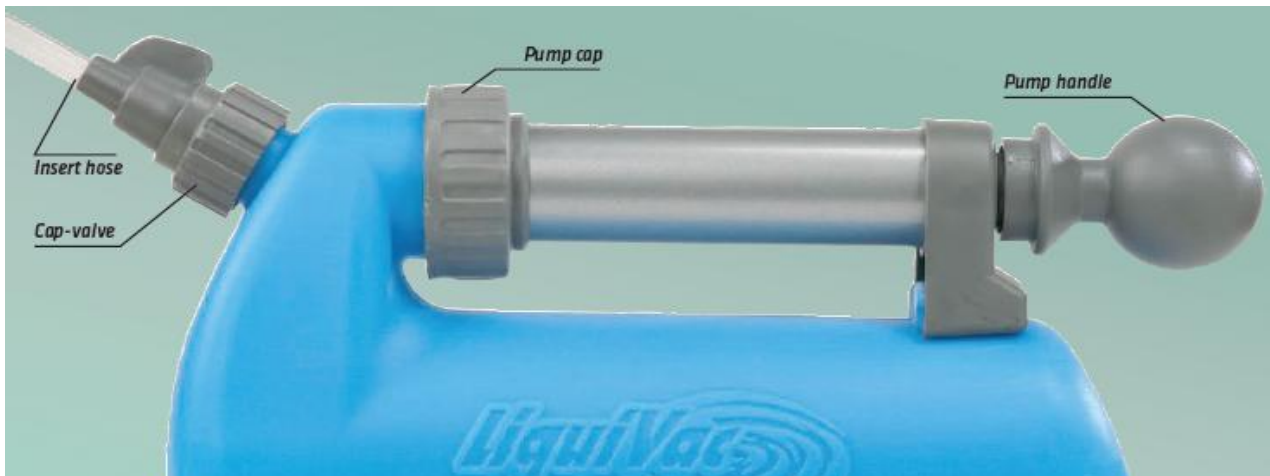




Assembly Instructions for LiquiVac Oil Change System: Small Engine Model 2005

1. Place black (1-¼") gasket inside cap-valve.
2. Screw cap-valve on the tank to create a snug fit (without excessive force).
3. Insert clear hose into cap-valve as far as it will go to achieve an airtight connection. (If needed, lubricate hose with soapy water to insert hose).
4. Check that pump cap is reasonably tightened onto tank.



Instructions for Use

Warm oil:

For best results, run cold engine for 1-2 minutes to slightly warm oil. Do not use with hot engines (no more than 105 °F). Failure to comply may result in tank distortion and/or collapse of hose and/or tank.

Close cap-valve.

Observe open and closed markings on cap-valve. Twist cap-valve clockwise to closed position.

Pump to create vacuum for your project.

Use 20-30 pump strokes to develop a vacuum.

Open cap-valve.

Twist cap-valve dial counter clockwise to the open position. Watch for oil to flow through the hose and into the tank.

Move hose to vacuum all oil.

If you hear a gurgling sound and perhaps see bubbles in the hose, immediately move the hose slowly up and down just a fraction of an inch to ensure thorough and efficient oil removal. If more vacuum power is needed to completely remove oil, twist the spout cap-valve dial back to the closed position, pump 10 to 15 times, then twist dial to open and continue vacuuming oil.

Careful: Do not pump with dial in open position to avoid pulling oil into pump and possibly out the handle.

Close cap-valve. Replace dipstick. Refill engine oil. Recycle used oil.

Twist cap-valve to closed position and screw pump handle onto tank in locked position. Replenish oil supply following manufacturer's recommended engine oil type and capacity. To find a recycling center nearest you, visit www.recycleoil.org

Warning: Never use with gasoline or other flammable liquids. Do not use with hot liquids!

Troubleshooting

1. The key problem most people have operating the LiquiVac is that the gaskets not sealing properly to hold the vacuum. You can check this by listening for air leaks. Unscrew cap-valve from tank and remove gasket. Reinsert gasket into cap-valve and screw onto tank as tight as possible using only your hands. Remove pump from tank. Make sure the large black gasket is seated properly against the tank rim. Screw pump back onto tank and hand tighten. If a leak is detected, check gaskets for wear and misalignment. Lubricate with motor oil, replace gaskets and tighten cap until snug.
2. Make sure dial on cap-valve is in closed position when pumping, and hose is fully inserted tightly into cap-valve.
3. If you have tried the above and each pump stroke does not result in increased resistance, then the internal leather seals in the pump may need lubrication. Just apply several drops of oil onto the pump rod (at the handle end), draw on the handle a few times to distribute the oil. Let pump rest in vertical position, handle side up, for 12–24 hours to allow leather to soften. After this time period, draw on handle a few more times, then reattach to tank making sure the large gasket is seated onto the tank rim. This may be necessary when the pump has been stored for several months.
4. If you accidentally over filled your tank or if the oil happens to enter the pump, you can unscrew the pump from the tank and let the oil flow into a container (knob side down and unscrewed). After the oil is drained pump the handle a few times to get the remaining drops of oil out. Keep in mind a small amount of oil in the pump is good for the unit and actually prolongs the life of the pump by adding lubricity.
5. If you use the LiquiVac to extract water, please take the pump assembly off after use and allow water to drain out, then add oil onto the pump rod at the handle end. This is necessary because the seals in the pump are made of leather.

Customer Service: If you need further assistance or replacement parts, call the makers of the LiquiVac (toll-free) at 1.800.225.2224 or visit our web site: www.liquivac.com . Parts Included: Clear vacuum hose, suction probe, cap-valve, black rubber spacer and 1¼" gasket. U.S. Patent No.: 6,474,443 B2