

INDUSTRIAL PUMPOUT SYSTEM

OPERATION INSTRUCTIONS



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Congratulations on the purchase of your new Conde ProVac pumping system. Your new Conde ProVac has been manufactured of the best possible components to give you year after year of trouble free service. Your ProVac, as you can easily see, is built extra tough to withstand extra tough conditions. Nevertheless, you will find that your ProVac will continue to give you “brand new” performance by following some simple maintenance procedures.

PRE-OPERATION SETUP

Your Conde ProVac has been completely tested at the factory before you have taken delivery of it. All systems have been checked and rechecked to make sure that everything is working properly and is set up to work right out of the crate. However, due to federal regulations, it is not possible to ship the unit to you with oil in the vacuum pump reservoir. **It is, therefore, imperative for you to add oil to the oil reservoir before starting the unit. It is also necessary to set the oil dripper system so that the vacuum pump receives the correct amount of oil. Failure to do this can damage the vacuum pump and void the vacuum pump warranty.** To make sure that the oiling system is set up properly, please follow the following instructions:

First, fill the oil reservoir which is located in front of the pump/motor coupling guard. Unscrew the filler cap and fill with any high detergent 10W-30 or 10W-40 motor oil. Synthetic oil will keep the inside of the pump cleaner, but we do not demand its use.

It is now important to set the oil dripper (item #5) so that the proper amount of oil is fed into the pump. To set the oil dripper, close the discharge outlet (item #3) and the suction inlet (item #4). Start the unit in the vacuum mode by turning the controller switch (item #6) to the vacuum setting. Let the unit build up to maximum vacuum by watching the vacuum pressure gauge. Vacuum should build up to 20” Hg before the vacuum relief valve located near the pump unit (item #1) begins to blow off excess air to atmosphere. Locate the oil dripper (item #5) which is on the top of the vacuum pump. Unscrew the lock-nut on top of the dripper. Then with a slot-head screwdriver, unscrew the dripper jet by turning it in a counterclockwise direction. Turn the jet until the oil line fills with oil to the dripper. Then slowly tighten the jet in a clockwise direction until the dripper is dripping one drop every five (5) seconds. Replace the lock nut and tighten in a clockwise direction. **Remember, it is important that the vacuum pump always receives a supply of oil when it is in operation. Therefore, check the oil reservoir periodically to insure that the pump will be getting oil while it is running.**

WARNING: The Conde ProVac should not be used for pumping flammable liquids or gases.

OPERATION

The Conde ProVac is simple to operate. The complete unit comes with a 60 gallon tank on a frame with wheels, a vacuum/pressure pump, motor reversing control, electronic shut-off mechanism, brake assembly, hose and wand. Please see the enclosed complete parts list to identify all items on your ProVac. Your ProVac will be made of steel or aluminum.

After first setting the oil dripper as previously discussed, to operate the Conde ProVac, plug it into any 115 volt, 15 amp or higher wall circuit. If using an extension cord, make sure that the cord is heavy enough to handle the 13.4 amp motor on the ProVac. Before plugging in the ProVac, make sure that the motor reversing control is in the "off" position. Also, make sure that all covers and fittings are tightly secured. **If the ProVac is turned on in the pressure mode, loose or insecure fittings can blow off and serious injury can result.**

Now turn the discharge 2" ball valve located on the bottom of the tank to the "off" position and turn the 2" suction valve located in the back of the tank to the "off" position also. This will allow the tank to build up vacuum when it is turned on. It is also a good idea to close the ball valve at the wand at this time.

The Vacuum or Suction Mode

To begin pumping in the suction mode, turn the motor controller to the vacuum position which is marked as such on the controller. The pump will kick on and will immediately begin to build vacuum. This can be ascertained by looking at the gauge located on the front of the ProVac unit. The gauge is a combination vacuum/pressure gauge, so first make sure that the gauge is reading in the vacuum mode. Vacuum is measured by inches of mercury (shown as " Hg) on the gauge. The Conde ProVac is equipped with a vacuum relief valve that will allow the unit to build up to 20" Hg, which is enough vacuum to do virtually any job. After the ProVac has built up 20" Hg, the vacuum relief valve will begin to crack and pull atmospheric air into the tank. It will sound as if the unit is leaking, but this is perfectly normal. To begin pumping, simply submerge the wand into the liquid to be pumped, and open the wand ball valve. Pumping will be instantaneous and at a rate of about 60 gallons per minute which means, of course, that it will take only about one minute to fill the Conde ProVac.

The Conde ProVac is now equipped with an electronic float switch mechanism that will shut the ProVac unit off when it is full. It is not possible to overfill the ProVac because the float switch will cut the power off to the pump module when the tank is full preventing any moisture or foreign substance from being sucked inside the pump. If, while pumping, the unit suddenly shuts off, it is full.

In some cases, it will not be possible to use the wand assembly because it will be too long to fit into the area to be pumped. In these cases, pumping vacuum can be achieved in the tank by turning off the 2" ball valve located at the back of the tank. Then, simply put the 2" hose, less the wand assembly, into the liquid to be pumped and open the suction line ball valve at the tank. When pumping is complete, turn the ball valve at the tank to the "off" position, and turn the controller off.

Sometimes, to be able to pump only small amounts of liquid that remain on the bottom of a tank, it is necessary to increase the velocity of air flow to pump these small amounts of liquid out. In these circumstances, the unit is pumping both air and liquid. In most instances, it is important to keep the wand submerged in the liquid at all times to maintain tank vacuum at 20" Hg for maximum speed pumping. However, for small amounts of liquid, air velocity can be increased by closing the wand ball valve to about half way to three quarters. This will increase air flow so that air and water can be pumped at the same time.

Pressure or Off-Load Mode

The Conde ProVac is equipped with pressure off-loading capacity. For safety considerations, the Conde ProVac is factory set to off-load at a maximum of 5 psi. This will lift waste approximately 10 feet high. Higher off load capabilities are possible by adjusting the pressure relief valve (item #2). **The pressure relief valve should never be adjusted to over 10 psi.**

Before attempting to run the Conde ProVac in the Pressure or Off-Load Mode, make sure all fittings and valves are secure. Severe injury may result if fittings are not secure when the ProVac is in the Pressure Mode.

To off-load the Conde ProVac, detach the suction line from the quick disconnect at the suction line ball valve (item #4). First make sure that the suction line 2" ball valve is **closed** as is the discharge 2" ball valve (item #3). Reattach the 2" suction line to the discharge ball valve, attach or move the hose to the vessel to receive the contents of the ProVac, and open the discharge ball valve. Now, turn the controller to "Pressure". It is possible to verify that the ProVac is in the pressure mode by observing the gauge located on the front of the unit. The gauge should now show pressure building in the tank and the needle should read pressure or "PSIG". The ProVac will build only enough pressure to completely off load the unit. If, on the other hand, the unit is turned on to the pressure mode first before opening the discharge ball valve, the unit will begin to build pressure until the pressure relief valve (item #2) on top of the tanks opens and begins to relieve air to atmosphere.

The unit can also be off-loaded by attaching a suction line to the discharge pipe from another vacuum pumping source, such as a vacuum truck. Before pumping out the Unit, make sure that the suction line ball valve is open to provide a vent for pumping.

Cleaning and Maintenance

The easiest way to keep the inside of the ProVac tank clean, is to pump hot, soapy water into the tank using the wand and hose attachment. In this way, all parts of the ProVac that are normally exposed to waste are cleaned by the hot water. Immediately, after filling the tank with water, off-load the unit as previously explained into an appropriate container.

Your Conde ProVac is equipped with two large 6" manway openings located in the lower back of the tank and on the top. These openings enable you to get inside the tank itself to remove any debris that might have been sucked into the unit. It is also possible to use the opening to spray out the unit. To remove cover, simply unscrew the eight hex bolts and lift off cover. When replacing the cover, be sure that the O-ring is properly seated.

ELECTRONIC SHUT-OFF

You will find that the electronic shut-off mechanism (item #8) on your Conde ProVac is designed so that it is easily removed from the tank for cleaning. To remove the electronic float switch assembly, simply remove the four bolts that hold it in place and pull the whole assembly out of the tank. Make sure that the o-ring is in place for assembly.

OIL CATCH MUFFLER

The Oil Catch Muffler (item #7) is designed to capture oil as it exits the exhaust of the pump. It is necessary to periodically drain the oil catch by turning the petcock located at the bottom of the Oil Catch Muffler. Always dispose of used oil in a responsible way. **Do not put used oil from the Oil Catch Muffler back into the Oil Reservoir.**

EXHAUST ODOR CONTROL FILTER

Your Conde ProVac is equipped with an Exhaust Odor Control Filter. This filter is designed to reduce odors from the tank which may be exhausted through the vacuum pump when the unit is in the vacuum or suction mode. This stainless steel filter is made to be completely and easily disassembled for maintenance. The filter uses activated charcoal granules to absorb odors rather than trying to "cover up" unwanted odors with a perfume-like fragrance. After a period of time, it will become necessary to replace the activated charcoal. Simply disassemble the filter, dispose of the old charcoal, and add new charcoal. Reassemble the filter making sure the screens are installed properly. If the screens are not in their proper places, it is possible to suck charcoal into the vacuum pump. If this does happen, immediately flush out the pump with kerosene. Activated charcoal is readily available at most hardware stores. If you have trouble locating replacement charcoal, call Westmoor, Ltd

OIL RESERVOIR

Periodically, check the oil level in the oil reservoir by observing the oil level on the oil level sight tube located on the outside of the reservoir. Refill the reservoir when the oil level drops to 1/4 full.

FLUSHING INSTRUCTIONS

However unlikely, it is possible that liquid may be inadvertently sucked into the pump while pumping. If this occurs, flush the pump out with kerosene or fuel oil immediately. **Never under any circumstance flush out the pump with gasoline or any other highly flammable substance.**

To flush the pump, utilize the brass flushing petcock located on the front of the pump. Attach a small line from the petcock to a small can of kerosene. Turn the pump on in the vacuum or suction mode, and open the petcock. Even though the vanes inside the pump may be stuck in the rotor slots, a small amount of vacuum should draw kerosene into the pump and out the exhaust. Continue to suck kerosene into the pump until the vanes become free which can be audibly detected, and the pump is able to reach full vacuum (20" Hg). After flushing the pump, drain the kerosene out of the oil catch muffler and turn the unit back on in the vacuum mode to make sure the pump is receiving the proper amount of oil via the oil dripper.

Note: Serious corrosion problems caused by liquid or other foreign substance entering the pump may require complete disassembly and rebuilding of the pump.

TROUBLE SHOOTING YOUR CONDE PROVAC

Problem	Solution
- Unit turns on, but will not build up vacuum	- Check to see that all valves are closed.
- Unit builds vacuum, but will not pump	- Hose is clogged with debris. Turn unit off, detach suction line and reattach turning it end for end. Turn on unit in vacuum mode to dislodge debris.
- When unit is turned on, motor bogs down and pump does not turn.	- Pump has sucked liquid or water into it. Flush out unit per flushing instructions. Pump may have been running without oil. Check oil level.

Problem

- In the pressure mode, unit builds pressure, but will not off-load
- Slow/No drip inside oil dripper
- Uneven drip pattern in oiler
- Pump is overheating

Solution

- Make sure the discharge line is open. Detach hose and reverse it end for end in the event the hose is clogged. Make sure the off-load head is not more than 10 feet.
- Oil tank is low. Fill up oil tank. Oil dripper adjustment may be set too low. Readjust dripper.
- Air in oil lines. Fill oil tank and readjust dripper.
- Pump is not getting sufficient oil. Readjust oiler.

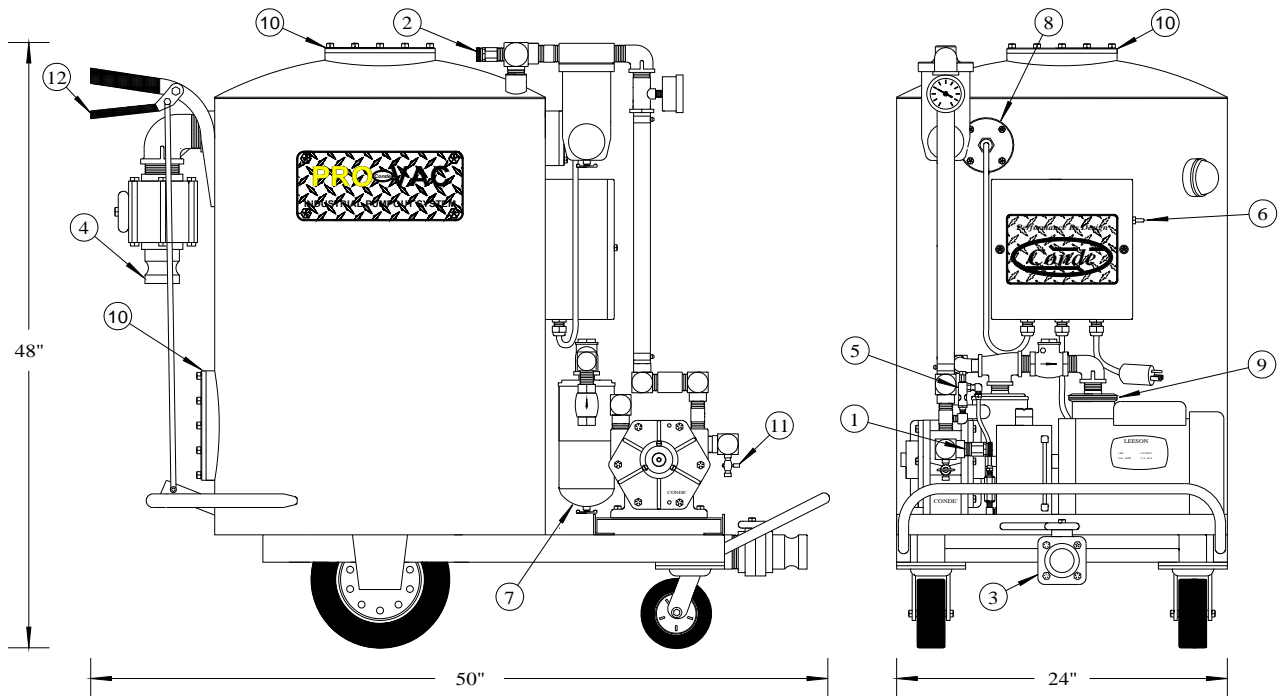
Thanks again for your purchase. We at Westmoor, Ltd. sincerely feel that we have the best portable liquid waste unit available on the market today. If you have need for any assistance or spare parts, please contact:

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PRO Conde VAC

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WEIGHT - 215 LBS. (ALUMINUM)
- 315 LBS. (STEEL)

PART #

LWUNP60A - 60 GALLON ALUMINUM UNIT

LWUNP60 - 60 GALLON STEEL UNIT



MADE IN THE U.S.A.

- 1 - VACUUM RELIEF VALVE
- 2 - PRESSURE RELIEF VALVE
- 3 - DISCHARGE OUTLET
- 4 - SUCTION INLET
- 5 - OIL DRIPPER
- 6 - VACUUM/OFF/PRESSURE SWITCH
- 7 - OIL CATCH MUFFLER
- 8 - ELECTRIC SHUT OFF
- 9 - EXHAUST ODOR CONTROL FILTER
- 10 - 6" MANWAY CLEAN OUT (X2)
- 11 - PUMP FLUSH VALVE
- 12 - PARKING BRAKE LEVER