



Operator's Instruction Manual

VORTEX-300



Manual - Portable



TO PURCHASE THIS PRODUCT PLEASE CONTACT US



**Equipment Financing and
Extended Warranties Available**



**Discount-Equipment.com is your online resource for
commercial and industrial quality parts and equipment sales.**

561-964-4949

visit us on line @ www.discount-equipment.com

Select an option below to find your Equipment

Search by Manufacturer

Search by Product Type

Request a Quote

We sell worldwide for the brands: Genie, Terex, JLG, MultiQuip, Mikasa, Essick, Whiteman, Mayco, Toro Stone, Diamond Products, Generac Magnum, Airman, Haulotte, Barreto, Power Blanket, Nifty Lift, Atlas Copco, Chicago Pneumatic, Allmand, Miller Curber, Skyjack, Lull, Skytrak, Tsurumi, Husquvarna Target, Stow, Wacker, Sakai, Mi-T-M, Sullair, Basic, Dynapac, MBW, Weber, Bartell, Bennar Newman, Haulotte, Ditch Runner, Menegotti, Morrison, Contec, Buddy, Crown, Edco, Wyco, Bomag, Laymor, EZ Trench, Bil-Jax, F.S. Curtis, Gehl Pavers, Heli, Honda, ICS/PowerGrit, IHI, Partner, Imer, Clipper, MMD, Koshin, Rice, CH&E, General Equipment, Amida, Coleman, NAC, Gradall, Square Shooter, Kent, Stanley, Tamco, Toku, Hatz, Kohler, Robin, Wisconsin, Northrock, Oztec, Toker TK, Rol-Air, APT, Wylie, Ingersoll Rand / Doosan, Innovatech, Con X, Ammann, Mecalac, Makinex, Smith Surface Prep, Small Line, Wanco, Yanmar

READ AND UNDERSTAND THE OPERATORS INSTRUCTION MANUAL THOROUGHLY BEFORE ATTEMPTING TO OPERATE THIS EQUIPMENT.



Death or serious injury could occur if this machine is used improperly.



SAFETY MESSAGES

- Safety Instructions are preceded by a graphic alert symbol of DANGER, WARNING, or CAUTION.

DANGER

Indicates an imminent hazard which, if not avoided, will result in death or serious injury.

WARNING

Indicates an imminent hazard which, if not avoided, can result in death or serious injury.

CAUTION

Indicates hazards which, if not avoided, could result in serious injury and or damage to the equipment.

GASOLINE/PROPANE POWERED EQUIPMENT

WARNING

- Engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



- Gasoline is extremely flammable and poisonous. It should only be dispensed in well ventilated areas, and with a cool engine.

- Small gasoline engines produce high concentrations of carbon monoxide (CO) example: a 5 HP 4 cycle engine operation in an enclosed 100,000 cu. ft. area with only one change of air per hour is capable of providing deadly concentrations of CO in less than fifteen minutes. Five changes of air in the same area will produce noxious fumes in less than 30 minutes. Gasoline or propane powered equipment should not be used in enclosed or partially enclosed areas. Symptoms of CO poisoning include, headache, nausea, weakness, dizziness, visual problems and loss of consciousness. If symptoms occur - get into fresh air and seek medical attention immediately.

ELECTRICAL POWERED EQUIPMENT



Extreme care must be taken when operating electric models with water present: Ensure power cord is properly grounded, is attached to a Ground-Fault-Interrupter (GFI) outlet, and is undamaged.

- Check all electrical cables - be sure connections are tight and cable is continuous and in good condition. Be sure cable is correctly rated for both the operating current and voltage of this equipment.
- Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with qualified electrician or service person if there is any doubt as to whether the outlet is properly grounded. Adhere to all local codes and ordinances.
- **NOTE:** In the event of a malfunction or breakdown, grounding provides a path of least resistance for the electric current to dissipate. The motor is equipped with a grounded plug and must be connected to an outlet that is properly installed and properly grounded. DO NOT modify the plug provided on the motor. If the plug does not fit the outlet have a qualified electrician install the proper receptacle.
- Switch motor OFF **before** disconnecting power.

- Do not disconnect power by pulling cord. To disconnect, grasp the plug, not the cord.
- Unplug power cord at the machine when not in use and before servicing.

GENERAL INSTRUCTIONS

- Equipment should only be operated by trained personnel in good physical condition and mental health (not fatigued). The operator and maintenance personnel must be physically able to handle the bulk weight and power of this equipment.
- This is a one person tool. Maintain a safe operating distance to other personnel. It is the **operators' responsibility** to keep other people (workers, pedestrians, bystanders, etc.) away during operation. Block off the work area in all directions with roping, safety netting, etc. for a safe distance. Failure to do so may result in others being injured by flying debris or exposing them to harmful dust and noise.
- This equipment is intended for commercial use only.
- For the operator's safety and the safety of others, always keep all guards in place during operation.
- Never let equipment run unattended.



- Personal Protection Equipment and proper safety attire must be worn when operating this machinery. The operator must wear approved safety equipment appropriate for the job such as hard hat and safety shoes when conditions require. Hearing protection **MUST** be used (operational noise levels of this equipment may exceed 90db). Eye protection **MUST** be worn at all times.



Keep body parts and loose clothing away from moving parts. Failure to do so could result in dismemberment or death.

- Do not modify the machine.
 - Stop motor/engine when adjusting or servicing this equipment.
- Maintain a safe operating distance from flammable materials. Sparks from the cutting-action of this machine can ignite flammable materials or vapors.

DUST WARNING

WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

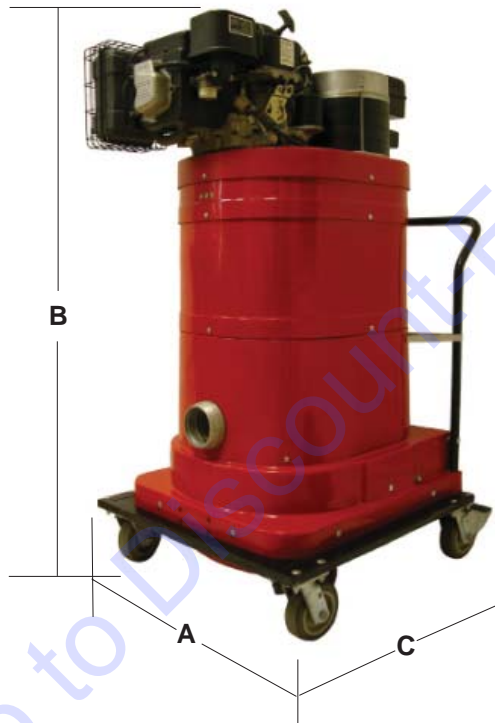
- Lead from lead-based paints, and
- Crystalline silica from bricks and concrete and other masonry products.

Your risk of exposure to these chemicals varies depending on how often you do this type of work. To reduce your risk: work in a well ventilated area, use a dust control system, such as an industrial-style vacuum, and wear approved personal safety equipment, such as a dust/particle respirator designed to filter out microscopic particles.

SPECIFICATIONS

Table of Contents

<u>Section</u>	<u>Page Number</u>
Safety Instructions.....	2
Specifications.....	3
Safety Guidelines.....	4
Operating Instructions.....	4-5
Inspection and Maintenance.....	5-7
Trouble Shooting.....	7
Limited Equipment Warranty.....	Back Page



Note:
All dimensions and weights are for **reference only** and subject to change at any time.

Figure 1

	VORTEX-300
"A"	25" (63.5cm)
"B"	59" (150cm)
"C"	36" (91.4cm)
Weight	260 lbs. (118kg)



Read and understand this *Operator's Instruction Manual*,
and the *Engine Manufacturer's Owner's Manual*
before operating this equipment.



Death of serious injury can result if this machine is used improperly.

DANGER**WARNING**

Safety Guidelines



Eye and ear protection must be worn at all times while the saw is in use. During normal operation, sound pressure levels exceed 92dBA. Use only ANSI approved safety glasses to help prevent eye injury. Standard eyeglasses have only impact resistant lenses; they are NOT safety glasses.



Operator must wear appropriate clothing and footwear. Do not wear loose clothing or jewelry that can get tangled in moving parts. Footwear should provide sure footing and protection from debris that may be dropped. Take steps to insure hair will not be caught in moving parts. If necessary, tie it back.

- When loading or unloading the saw, use caution. Make sure rolling table is locked so that the blade will not be damaged. Do not move the saw while the engine is running.
- Never exceed the maximum operating speed of the blade. Match the blade speed rating with the arbor shaft speed.
- Never leave the saw running unattended.
- Never operate this saw under the influence of drugs, alcohol or when taking medications that impair the senses or reactions, or when excessively tired or under stress.
- Do not lend or rent this equipment without including the Operator's Instruction Manual and the Engine Manufacturer's Manual.
- Make sure all safety decals can be clearly read and understood. Replace damaged or missing decals immediately.



Dry cutting creates a large volume of airborne dust. For health reasons, the operator should wear an applicable respirator. The dust may contain chemicals known to cause serious illnesses, including Silicosis - a fatal disease of the lungs. Check the chemical properties of the material to be cut and follow all EPA/OSHA regulations.

Operating Instructions

Before Starting:

1. Pull up on the foot lever to release the dustpan. Check that the dustpan is completely empty then replace.

CAUTION: Please refer to gasoline engine manufacturers instruction manual, prior to operating vacuum.

2. Check the fuel and oil levels per the enclosed engine manual.

Observe all safety regulations for safe handling of fuel.

WARNING: Do not operate vacuum if there is a fuel leak!

Safety warnings and guidelines do not by themselves eliminate danger.

They are not substitutes for proper accident prevention procedures and good judgement.

3. Set the kill switch to the on position.
4. Set the throttle control to the "Choke" position.
5. Pull the starter recoil with a steady even pull.
6. When the engine starts, set throttle. RPM are not to exceed 3600
7. Note the hour meter reading and follow the service requirements that are dictated by engine run hours.
8. The engine is shut down by setting the kill switch to the off position.
9. The filter should be shaken before and after each use, with the dust pan emptied and locked back in position.

Inspection and Maintenance

Standard Filter Inspection

1. Turn the machine off.
2. Knock material off the filter via the hand shaker, motorized shaker or reverse pulse.
3. Pull up on the foot lever to release the dustpan then remove and empty if necessary.
4. Lock the rear casters then carefully tip the machine back onto the push handle.
5. Remove any material between the pleats by hand.

CAUTION: Clogged material should only be removed by hand. Using an instrument to dislodge material may tear the filter. Consult your EDCO representative if material blockage is excessive.

6. Inspect the pleats of the filter for tears and material blockage.
7. Carefully tip the machine back onto the casters and replace the dustpan.

Standard Filter Removal

1. Follow the preceding filter inspection procedure to determine if removal is necessary.
2. Turn the machine on then block the inlet with a flat and rigid material to place the machine under vacuum pressure.
3. Remove filter ring socket truss screws with a 5/32 hex-wrench.
4. Turn the machine off and disconnect the power source.
5. Remove the motor deck and silencer hood together.

CAUTION: The motor deck of this unit can be very heavy. Follow safe lifting procedures.

6. Disconnect the clear differential pressure gage tubes from their respective barbed fittings if so equipped.
7. Remove the HEPA filter housing spacer and HEPA adapter assembly if so equipped.
8. Remove the reverse pulse/motorized shaker assembly and housing spacer if so equipped.
9. Inspect the top of the filter for material.

NOTE: The presence of material on the top of the filter or in the exhaust is often the result of a misaligned seal or damaged filter. Consult your EDCO representative if either is the case.

10. Remove the filter housing spacer assembly.
11. Turn the filter housing spacer assembly over on a table then carefully work the filter off the filter shaker insert.

Standard Filter Installation

1. Turn the filter housing spacer assembly over on a table then fit the filter over the filter shaker insert; make sure that each pleat is fully supported.
2. Seat the filter housing spacer assembly on the base oriented as it was removed.
3. Seat each of the housing components and assemblies as removed.
4. Connect the clear differential pressure gage tubes to their respective barbed fittings if so equipped.
5. Turn the machine on then block the inlet with a flat and rigid material to place the machine under vacuum pressure.
6. Secure all of the housing-components then turn the machine off.

NOTE: All HEPA filter machines are equipped with a differential pressure gage. The gage measures the pressure above against the pressure below the filter, thereby measuring the restriction of airflow due to contamination. HEPA filters should be replaced when the gage consistently measures 4 inches W.C.

1. Turn the machine on then block the inlet with a flat and rigid material to place the machine under vacuum pressure.
2. Remove the motor deck socket truss screws.
3. Turn the machine off and disconnect the power source.
4. Remove the motor deck and silencer hood together.
5. Remove the four lock nuts retaining the two HEPA filter brackets.
6. Remove the HEPA filter brackets and HEPA filter.
7. Center the new filter on the HEPA adapter plate gasket side down.
8. Position the provided lengths of self-adhering flat gasket material on the HEPA filter frame (if not already done) to cushion the HEPA filter brackets.
9. Replace the HEPA filter brackets then thread the locking nuts over the rods and tighten.

CAUTION: Do not over tighten. The effectiveness of the filter may be compromised if its frame is bent.

10. Seat the motor deck on the HEPA filter housing spacer.
11. Connect the power source.
12. Turn the machine on then block the inlet with a flat and rigid material to place the machine under vacuum pressure.
13. Secure the motor deck then turn the machine off.

Motor Deck Inspection

1. Turn the machine on then block the inlet with a flat and rigid material to place the machine under vacuum pressure.
2. Remove the motor deck socket truss screws.
3. Turn the machine off and disconnect the power source.
4. Remove the silencer hood assembly and motor deck separately.

CAUTION: The motor deck of this unit can be very heavy. Follow safe lifting procedures.

5. Turn the motor deck over on a table to inspect the belt for cracks, wear, melt, stretch and tension (make sure to support the motor and turbine equally).
6. Use a knife to clear the three turbine mounting slots of silicone.
7. Loosen the three nuts securing the turbine enough to slide the turbine forward.
8. Remove the belt.
9. Check the turbine and motor bearings for noise by hand.

Belt Installation

1. After the preceding motor deck inspection.
2. Place the belt over both pulleys making sure to match the grooves in the belt with both pulleys.
3. Use a spanning device between the turbine and motor pulleys to tension the belt.
4. Maintain tension while tightening the three nuts that secure the turbine.
5. Check that the corresponding grooves on the turbine and motor pulleys are aligned using the motor deck as a reference plane.

NOTE: The pulleys are normally aligned at the factory, but if adjustment is needed remove the motor pulley to access to the relevant shims.

6. Seat the motor deck on the housing spacer.

CAUTION: The motor deck of this unit can be very heavy. Follow safe lifting procedures.

7. Fill the three turbine mounting slots with silicone. Allow silicone to set before proceeding.
8. Position the silencer assembly on the motor deck.
9. Reconnect the power source and turn the machine on. Observe the machine for noise. Reinstall the belt if any unusual noises are detected.
10. Block the inlet with a flat and rigid material to place the machine under vacuum pressure.
11. Secure the motor deck then turn the machine off.

Turbine Maintenance

Turbine maintenance should only be performed in an authorized shop as designated by EDCO due to the precision involved in balancing high rpm devices. This includes and is mainly specific to the replacement of bearing components.

Trouble Shooting

Engine Will Not Start

- Check if there is fuel in the tank and it is the correct fuel. Make sure there is no water in the fuel.
- Check if the kill switch is in the “on” position.
- Check that the spark plug wire is connected to the spark plug.
- Engine is flooded. Adjust the choke per the engine owner’s manual.
- Check that the choke is in the “on” position for cold starts. Adjust the choke per the engine owner’s manual.
- Check that air filter is not dirty or plugged. See the engine owner’s manual for service.

Engine Runs Rough, Back Fires or Can Not Reach Full Speed

- Check if there is fuel in the tank and it is the correct fuel. Make sure there is no water in the fuel.
- Check that air filter is not dirty or plugged.
- Check that spark plug is clean and properly gapped.
- Check that throttle lever is properly set.

Debris is Not Picked Up or Low Vacuum Pressure

- Manually shake the filter with the handle on the side of the vacuum to unclog the filter. Empty the dustpan.
- Check that the dustpan is properly seated.
- Check the drum. Empty debris if necessary.
- Check that the cyclone separator is properly seated and secured on the drum.
- Check that the rubber seal is not damaged on the bottom of the cyclone separator. Replace if damaged.
- Check that the plastic bag is properly installed and not sucked in to the cyclone separator.
- Check the hoses for obstructions or blockage. Remove the hoses and visually look through them.
- Check that the engine is running properly and at full speed or about 3200 rpm.
- Inspect filter for excessive debris or foreign material on top side of filter.
- Make sure all the saw attachment components are installed and working properly in the blade block.
- Check hoses for damage, cuts or holes that could cause a loss of vacuum pressure.
- Block the inlet with a flat and rigid material. Check for air leaks on the entire unit and repair as necessary.
- Make sure there is no debris build up in the saw blade block.
- Check the vacuum exhaust port for air flow. Inspect the turbine drive belt if there is no or low air flow.
- Check that there are no missing bolts on the vacuum assembly.

Unusual or High Pitched Noises

- Block the inlet with a flat and rigid material. Check for air leaks on the entire unit and repair as necessary.
- Inspect the engine per the enclosed engine manual.
- Inspect the turbine for defective bearings.
- Inspect the turbine drive belt for damage.

TO PURCHASE THIS PRODUCT PLEASE CONTACT US



**Equipment Financing and
Extended Warranties Available**



**Discount-Equipment.com is your online resource for
commercial and industrial quality parts and equipment sales.**

561-964-4949

visit us on line @ www.discount-equipment.com

Select an option below to find your Equipment

Search by Manufacturer

Search by Product Type

Request a Quote

We sell worldwide for the brands: Genie, Terex, JLG, MultiQuip, Mikasa, Essick, Whiteman, Mayco, Toro Stone, Diamond Products, Generac Magnum, Airman, Haulotte, Barreto, Power Blanket, Nifty Lift, Atlas Copco, Chicago Pneumatic, Allmand, Miller Curber, Skyjack, Lull, Skytrak, Tsurumi, Husquvarna Target, Stow, Wacker, Sakai, Mi-T-M, Sullair, Basic, Dynapac, MBW, Weber, Bartell, Bennar Newman, Haulotte, Ditch Runner, Menegotti, Morrison, Contec, Buddy, Crown, Edco, Wyco, Bomag, Laymor, EZ Trench, Bil-Jax, F.S. Curtis, Gehl Pavers, Heli, Honda, ICS/PowerGrit, IHI, Partner, Imer, Clipper, MMD, Koshin, Rice, CH&E, General Equipment, Amida, Coleman, NAC, Gradall, Square Shooter, Kent, Stanley, Tamco, Toku, Hatz, Kohler, Robin, Wisconsin, Northrock, Oztec, Toker TK, Rol-Air, APT, Wylie, Ingersoll Rand / Doosan, Innovatech, Con X, Ammann, Mecalac, Makinex, Smith Surface Prep, Small Line, Wanco, Yanmar