



Model V-1000 Operating Guide



IMPORTANT:
Read ALL Directions Before Using

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Manufacturer	Soff-Cut International 1112 Olympic Drive Corona, CA 92881 USA
Model	V-1000
Serial number	_____
Year manufactured	_____

WARNING: Failure to comply with the following warnings could result in serious bodily injury or death!

SAFETY WARNINGS

PERSONAL SAFETY

- Read and understand all instructions before operating the vacuum.
- Always wear safety approved hearing, eye, head and respiratory protection adequate for fine materials such as silica dust.
- Wear boots with non-slip soles to provide proper footing. Steel-toed safety boots are recommended.
- Wear rubber work gloves to avoid contact with wet concrete which can cause serious skin irritation.
- Know how to stop the vacuum quickly in case of emergency.
- Use caution when loading and unloading the vacuum.
- Stay alert. Maintain awareness of the vacuum operation. Use common sense. Do not operate the vacuum when tired or after consumption of any substance that would impair physical function or rational judgment.
- Do not over reach. Keep proper footing and balance.

WORK AREA SAFETY

- Never operate the vacuum in any application or job where you are not trained or supervised.
- Keep visitors, children and animals out of the work area.
- Observe all safety regulations for the safe handling of fuel. Gasoline is extremely flammable and its vapors can explode if ignited. Do not refuel indoors or in poorly ventilated areas. Handle fuel in safety containers. Shut off the engine and allow it to cool before refueling. Wipe the vacuum dry if fuel is spilled on it. Always move away from the fueling area before starting the engine. Do not smoke while refueling.
- Do not operate the vacuum while smoking or near an open flame.
- Do not operate the vacuum in areas of combustible material or fumes.
- Operate only in well ventilated areas. Engine exhaust contains carbon monoxide which can cause loss of consciousness and possible death.

- The muffler and engine become very hot during operation. Keep all body parts and foreign material away from the engine while running.
- Avoid dangerous environments. Do not expose the vacuum to rain. Keep work area well lit and clean.

VACUUM SAFETY

- Do not leave the vacuum unattended while the engine is running.
- Do not alter the vacuum. Any alteration or modification is misuse and may result in a dangerous condition.
- Do not use damaged equipment or personal protection equipment. Do not disable safety equipment or kill switches.
- Do not operate the vacuum if there is a fuel leak.
- Use extreme caution when maneuvering the vacuum on ramps or loading and unloading from trucks or trailers.
- Use only Soff-Cut International, Inc. replacement parts. Use of unauthorized parts may create a danger.
- Do not use the vacuum as a vehicle for transporting personnel or equipment.
- Remove the ignition cable from the spark plug before performing vacuum maintenance to prevent accidental engine starting.
- Remove all wrenches from the vacuum before starting.
- Never stand on the vacuum.
- When the vacuum is not in use or transporting, apply the parking brakes on the rear wheels and properly secure the vacuum to prevent accidental movement.
- Please refer to gasoline engine manufacturer's instruction manual prior to operating vacuum.
- V-1000 vacuums are not to be used for the removal of liquids or any volatile, viscous, flammable or explosive media. If you are unsure about the application, contact Soff-Cut.
- V-1000 vacuums are not designed for continuous use and should not be held under constant stress. If you are unsure about the application, contact Soff-Cut.

MACHINE DESCRIPTION

The Soff-Cut International, Inc. **Model V-1000** vacuum is designed for use with Soff-Cut Ultra Early Entry concrete saws. The patented Soff-Cut Ultra Early Entry dry cutting system controls random cracking of concrete through the early timing of the saw cutting usually within one to two hours after the finishing process is completed. The patented low noise and low dust blade block and skid plate technology in conjunction with Soff-Cut blades and Soff-Vac vacuum system allows for Ultra Early Entry sawing the same day while minimizing cutting debris, chipping and spalling.

Model number and part number – V-1000

Materials cut and collected – Uncured or green concrete.

Air flow – 300 cu. ft/min. (510 cu. meters/hr)

Vacuum pressure – 93” water lift (23 kPa)

Filter area – 28 sq. ft. (2.1 sq. meters)

Filter separation – 99.9% of 0.5 micron or larger dust

Waste collection – primary cyclone drum 30 gal. (114 liters)
secondary dust pan 9 gal (34 liters)

Dry weight – 375lbs. (170kg)

Dimensions – 58”L x 32”W x 72.5”H (1473mmL x 813mmW x 1842mmH)

Inlet hose diameter – 3” (76mm)

Inlet hose length – 8 ft (2.4 m)

Fuel – Unleaded gasoline only with 87 or higher octane rating

Oil – SAE 30W viscosity detergent automotive type with API service class SE or higher grade

Engine specifications

Type	Air cooled, 4-cycle, gasoline engine
Power	8.9 hp (6.6 kW)
Oil capacity	1.2 US quart (1.1 liter)
Fuel capacity	2.2 US quart (2.1 liter)
Starting system	Manual recoil starter
Air filter	Paper element with foam pre-filter
Muffler	Silent type, exhaust deflector, spark arrestor
Emissions	Complies with EPA Phase 2 and CARB Tier II USA regulations
Cooling	Air cooled with internal and external cooling fins
Cylinder	Aluminum with cast iron liner
Controls	Remote handle mounted manual throttle, choke and on/off switch

!WARNING!

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

UNPACKING AND ASSEMBLY

Your Soff-Cut **Model V-1000** vacuum system has been shipped from the factory thoroughly inspected. Only minimal assembly is required to start using the unit. Remove the vacuum from the container using proper lifting techniques. Discard or recycle the packing material per your regional laws. In your container will be the V-1000 vacuum, 30 gallon collecting drum with cyclone separator, 2 sections of hose, a plastic bag, an owner's manual and an engine owner's manual. Assemble the unit by removing the 2 bolts in the top mounts of the tilting A-frame assembly. Lift the 30 gallon drum and place the rotating studs in the A-frame slots. Reinstall the 2 bolts to secure the drum to the A-frame. Unclip the 2 hold downs on the separator, disconnect the clear hose on the side of the drum and remove the cyclone. Remove the 2 sections of hose and the plastic bag. The shorter grey hose connects between the center port of the cyclone and the dust collector. The longer black hose connects to the top side outlet of the cyclone and the saw. Place the plastic bag in the drum and overlap the sides. Replace the cyclone and latch the hold downs in position.

TRANSPORTING

The Soff-Cut **Model V-1000** vacuum weighs approximately 375 pounds (170 kilograms) when ready to use. Use safe lifting practices when handling the vacuum. **Use caution when loading and unloading the vacuum and on ramps or inclined areas.** Always empty the drum and dust pan before transporting or lifting. When the vacuum is not in use or transporting, apply the parking brakes on the rear wheels and properly secure the vacuum to prevent accidental movement.

VACUUM START UP AND OPERATION

Read and understand the gasoline engine manufacturer's instruction manual prior to operating the vacuum especially all warnings and safety information. Apply the parking brakes on the rear wheels. Always do an inspection of the vacuum before starting the engine. Check the fuel and oil levels per the enclosed engine manual. SAE 30W oil and regular unleaded gasoline with an 87 or higher octane should be used. **Observe all safety regulations for the safe handling of fuel. WARNING: Do not operate the vacuum if there is a fuel leak!** Check that all controls are in good working order. Check for loose bolts or nuts. Check that a plastic bag is installed in the drum and that the cyclone hold downs are secure. Set the kill switch to the "on" position. Set the throttle control to the "Choke" position. Pull the starter recoil with a steady and even pull. When the engine starts, set the throttle so that the tachometer reads approximately 3200 rpm. Note the hour meter reading and follow the service requirements for the engine run hours. Before putting the vacuum in service, precoat the filter with 1 lb (.5 kg) of media to extend filter life. Precoat media can be purchased from you Soff-Cut dealer. With the vacuum running, suck the precoat media into the grey hose between the cyclone separator and the vacuum. Stop the engine by setting the throttle control to the slow or idle position. Set the engine kill switch to the "off" position. Manually shake the filter using the handle on the side of the vacuum. Pull up on the foot lever to release the dustpan. Empty the dustpan of any excess material. Precoat media will need to be reapplied once a week during normal use. Reinstall the dustpan and step down on the lever to secure the dustpan. Reconnect the gray hose to the cyclone. When operating the vacuum with the saw, connect the black hose to the port on the blade block cover of the saw by sliding the steel end in the port until secure. Operate the vacuum engine at maximum rpm. When sawing is finished, turn the engine off and disconnect the black hose from the saw. Manually move the handle on the side of the filter assembly to dislodge any material in the filter. Raise the foot lever, empty the debris from the dustpan. Replace the dustpan and step down on the lever to secure the pan. Empty the drum by disconnecting the clear hose on the side of the drum. Unclip the 2 hold downs on the drum and remove the cyclone separator. Tie the top of the plastic bag closed. Lift up on the knob on the side of the frame to release the tipping mechanism. Tip the drum side ways and pull the plastic bag and debris out. Raise the drum and lock in position. Install a new plastic bag and push it to the bottom of the drum while opening it fully wrapping it over the top of the drum. Reinstall and secure the cyclone separator. **Always clean the filter and empty the drum immediately after use and before storing or transporting. WARNING: Do not leave the vacuum unattended while the engine is running! Always secure the vacuum from movement while unattended.**

INSPECTION AND MAINTENANCE

FILTER INSPECTION

With the engine off and the spark plug wire disconnected, remove loose material on the filter by manually shaking the filter with the handle on the side of the vacuum. Pull up on the foot lever to release the dustpan and empty if necessary. Remove any material between the pleats by hand. **Clogged material should be removed by hand. Using an instrument to dislodge material may tear the filter.** Consult Soff-Cut if material blockage is excessive. Inspect the pleats of the filter for tears and material blockage. Replace the dustpan.

FILTER REMOVAL

Start the vacuum and block the inlet with a flat and rigid material to place the unit under vacuum pressure. Remove all of the housing component socket head screws with a 5/32 hex wrench. Turn the machine off and disconnect the spark plug wire. Remove the motor deck. **WARNING: The motor deck can be very heavy. Always follow safe lifting procedures.** Inspect the top of the filter for debris. **The presence of foreign material on the top of the filter or in the exhaust is often the result of a misaligned seal or damaged filter.** Remove the filter housing spacer assembly. Turn the filter housing spacer assembly over on a table then carefully work the filter off the filter shaker insert.

FILTER INSTALLATION

Turn the filter housing spacer assembly over on a table. Fit the filter over the filter shaker insert ensuring that each pleat is fully supported. Seat the filter housing spacer assembly on the base oriented as it was removed. Seat each of the housing components and assemblies as removed. Turn the machine on then block the inlet with a flat and rigid material to place the unit under vacuum pressure. Reinstall all the screws to secure all of the housing components. Turn the machine off.

MOTOR DECK AND BELT INSPECTION

Start the vacuum and block the inlet with a flat and rigid material to place the unit under vacuum pressure. Remove all of the housing component socket head screws. Turn the machine off and disconnect the spark plug wire. Remove the motor deck. **WARNING: The motor deck can be very heavy. Always follow safe lifting procedures.** Turn the motor deck over on a table making sure to support the motor and turbine equally. Inspect the belt for cracks, wear, stretch and tension. Use a knife to clear the 3 turbine mounting slots of silicone. Loosen the 3 nuts securing the turbine enough to slide the turbine forward. Check the turbine and motor bearings for noise by hand. Place the belt over both pulleys and in the pulley grooves. Use a spanning device between the turbine and motor pulleys to tension the belt. Maintain tension while tightening the 3 nuts that secure the turbine. Check that the grooves on the pulleys are aligned using the motor deck as reference point. The pulleys are normally aligned at the factory but if adjustment is needed, remove the motor pulley to access the relevant shims. Place the motor deck on the housing spacer. Fill the 3 turbine mounting slots with silicone and allow the silicone to set before proceeding. Position the silencer assembly on the motor deck. Turn the machine on. Observe the machine for abnormal noise. Repeat the procedure if any unusual noises are detected. Block the inlet with a flat and rigid material to place the unit under vacuum pressure. Secure the motor deck and turn the machine off.

TURBINE MAINTENANCE

Turbine maintenance should only be performed in an authorized shop as designated by Soff-Cut due to the precision involved in balancing high rpm devices. This includes replacement of bearing components.

Refer to the engine owner's manual included with the vacuum for additional maintenance requirements.

WARNING: Do not modify the vacuum! Use only Soff-Cut International replacement parts. Use of unauthorized parts may create a danger or damage the engine.

TROUBLESHOOTING

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.

CUTTING 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.

WARRANTY

The Soff-Cut International gas vacuum is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials (excluding the engine, which is covered by the engine manufacturer) for a period of six months for labor and up to one year on parts from the date of original purchase.

Before work is performed on any related warranty item, you must submit date of purchase and warranty repair estimate to Soff-Cut International. This can be done by letter, fax or telephone. Soff-Cut International will approve the cost or have you ship the unit back to Soff-Cut International prepaid for repair. Concerning parts that have failed, you can obtain a Returned Goods Authorization (RGA) number from Soff-Cut International. Send the parts back to Soff-Cut International prepaid with proof of purchase and the RGA number, and one of the following will happen:

1. Your account will be credited
2. The part will be repaired and returned to you
3. The part will be replaced and sent to you.

Note: Soff-Cut International is not responsible for shipping costs.

The above Soff-Cut International warranty does not apply under the following circumstances:

- Repairs made or attempted by others.
- Repairs required because of normal wear and tear.
- The vacuum has been abused, misused or improperly maintained
- Alterations have been made to the vacuum.

IN NO EVENT SHALL SOFF-CUT INTERNATIONAL BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

SOFF-CUT INTERNATIONAL DISCLAIMS LIABILITY FOR ANY WARRANTIES INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE" AFTER THE TERM OF THIS WARRANTY.

This warranty gives you specific legal rights and other possible rights, which may vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. Some states do not allow limitations on how long an implied warranty lasts so the above limitation may not apply to you.

WARRANTY ON ENGINE

1. Soff-Cut International does not perform warranty repairs or reimburse for warranty repairs on engines. Engine warranties are provided by the engine manufacturer.
2. To obtain warranty repair: Take your engine along with your proof of purchase to any general purpose dealer or distributor nearest you.

If you are unable to obtain warranty service or are dissatisfied with the warranty service you received, contact the owner of the dealership involved. Normally, this should resolve your problem. For further assistance, call our parts and service department at 1-800-776-3328 or 1-951-272-2330.

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Covered by one or more of the following U.S. Patents
4769201, 4889675, 4928662, 4938201, 5056499, 5086750, 5184597, 5303688, 5305729, 5373834, 5441033, 5505189, 5507273, 5570677, 5575271, 5579754, 5582899, 5603310, 5660161, 5664553, 5666939, 5689072, 58030371, 6892719.
Other U.S. and foreign patents pending.

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