

Installation and Operating Instructions



Portable Vacuum Cart

Eko³ systems

Specifications

The Portable Vacuum Cart specified in this section shall provide for a complete vacuum cleaning system. It will include a filter, pump with strainer and motor, electrical cord, with plug, on/off switch, cart, valves, vacuum cleaner head, vacuum and discharge hoses and a telescopic handle. The system shall be complete and must be factory assembled and tested before shipment.

The Portable Vacuum Cart shall be the standard cataloged product of a company regularly engaged in the manufacture of such devices. The company must have a minimum of five years experience in the manufacture of such equipment for public and institutional applications. All components of the Portable Vacuum Cart shall be supplied by one supplier who shall guarantee their compatibility and operation.

1.5 HP pump

Portable Vacuum Cart with a 155-square foot single-cartridge filter, lid-mounted handle, separate heavy duty lid-mounted bracket for electrical cord, and two rubber-tired ball bearing wheels with grease fittings. Cart and filter shall be fabricated from Schedule 304 stainless steel with welds treated and pacified. Provide a WhisperFlo® self-priming pump with a 1½ HP, 115/230volt, single phase motor with a 6” hair and lint strainer. Pump shall be UL and NSF listed, have a 2” suction and 2” discharge with brass priming valve and hose bib. Entire pump assembly shall be anchored to vacuum cart with two stainless steel bolts. Provide either 50 foot or 100 foot 10 AWG 3/C SJ electrical cord with plug.

2 HP pump

Portable Vacuum Cart with a 155-square foot single-cartridge filter, lid-mounted handle, separate lid-mounted bracket for electrical cord, and two rubber-tired ball bearing wheels with grease fittings. Cart and filter shall be fabricated from Schedule 304 stainless steel with welds treated and pacified. Provide a WhisperFlo® self-priming pump with a 2HP, 115/230volt, single phase motor with a 6” hair and lint strainer. Pump shall be UL and NSF listed, have a 2” suction and 2” discharge with brass priming valve and hose bib. Entire pump assembly shall be anchored to vacuum cart with two stainless steel bolts. Provide either 50 foot or 100 foot 10 AWG 3/C SJ electrical cord with plug.



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CAUTION: ELECTRIC MODELS

Vacate any persons from the swimming pool before vacuuming with this unit, as **severe electrical shock or death** may result to persons who are in the water where it is being used.

ELECTRICAL REQUIREMENTS

The 1.5 HP vacuum cart requires a 110V/20 amp GFI receptacle, the 2.0 HP requires a 110V/30 amp GFI receptacle. Failure to operate without these power supplies will possibly overload your circuits and cause damage.

Electric motors must be lubricated in accordance with manufacturer's specifications.

WINTERIZING

When freezing conditions are likely to occur, the filter must be completely drained to prevent damage to the system.

1. Turn pump motor off.
2. Open air relief valve, allowing all water to drain from filter.
3. Loosen filter tank clamp and remove tank lid, Unscrew filter module assembly (counter-clockwise) and lift out. Clean and store the cartridges in a dry place.
4. Remove the lower drain plug to drain the pump case when the unit is idle during freezing weather or in storage and let drain completely.

OPERATING INSTRUCTIONS

1. Roll your portable vacuum to the edge of the pool or fountain.
2. Check to be sure the clean-water return faces the pool or fountain, and will empty away from the area to be vacuumed. This will minimize surface rippling.
3. Place vacuum head, wheels down, on the deck and align the hose manifold on the same plane.
4. Attach the hose to the vacuum head making sure its position is level.
5. Connect vacuum hose to vacuum head and pole.
6. Carefully lower vacuum head into water.
7. Uncoil hose by feeding it into the water. (This fills the hose with water. The pump will not prime unless the hose is completely filled with water). NOTE: The hose will sink when full. Take care not to lose the hose in water.
8. When hose is completely filled, attach it to the hair lint pot.
9. Remove the hair lint pot cover.



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10. Using a bucket, **completely** fill the hair lint pot with water and reseal lid.

NOTE: Never start your vacuum unless the hair lint pot is completely filled with water and the lid is secured to the hair lint pot. Failure to properly complete steps 8-10 may result in damage to the pump shaft seal.

11. **NOTE:** if the hair lint pot cover is not properly seated, air leaks occur and prevent the pump from catching prime.

IF THERE ARE ANY OBSTRUCTIONS (ROCKS, LEAVES, ETC.) IN THE VACUUM HEAD OR HOSE, OR IF THE FILTERS ARE CLOGGED WITH DIRT, THE PUMP WILL NOT CATCH PRIME.

12. Begin vacuuming. Care should be taken not to pull the vacuum head from the pool or fountain while the motor is running as this may result in the pump losing prime.

13. If the pool or fountain contains a large amount of debris, empty the hair lint pot strainer basket frequently during vacuuming. To do this:

- a. Turn off your vacuum.
- b. Remove hair lint pot cover.
- c. Empty strainer basket away from pool area and replace in hair lint pot.
Check water level in hair lint pot. If needed, refill to capacity with water.

NOTE: If steps A-C are taken without interruption, it will not be necessary to refill the hair lint pot.

- d. Start your vacuum.
- e. Continue vacuuming.

14. When you are finished vacuuming, stop your vacuum.

15. Turn the clean-water return away from the pool or fountain to prevent any debris from re-entering the pool or fountain from the hair lint pot when the hose is removed.

16. Remove vacuum head from pool or fountain.

17. Detach hose from vacuum head and hair lint pot.

18. Drain hose away from pool or fountain to further prevent any debris from re-entering the pool or fountain.

19. Recoil the hose for storage.

NOTE: If the pool or fountain is extremely dirty with mud, clay, etc., remove the filter with cartridge from the canister. Vacuum initial debris to waste, reinstall cartridge when finer debris clean-up can be resumed.



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HOW TO CLEAN YOUR FILTER CARTRIDGE

Normal cleaning procedure: Normal cleaning procedure is done by using a pressure nozzle on the end of your garden hose. Direct jet spray at the cartridges on an angle to remove dirt.

Special cleaning procedure: To be used only when normal procedure is insufficient to return cartridge to normal filter runs.

1. **Removing Oils From Cartridges:** If oils coat cartridges and cause reduced flow, this material may be removed by soaking cartridges in a solution of 2 lb. tri-sodium phosphate (or any similar strong detergent) to 10 gallons of water. Usually 12 hours soaking time will break oil coating from cartridge. Tri-sodium phosphate is available at most hardware stores, supermarkets, or janitorial supply hoses. Repeat Normal Cleaning Procedure.
2. **Removing Algae From Cartridges:** If an alga coats the cartridges and causes reduced flow, this material may be removed by soaking cartridges in a solution of 2 lb. tri-sodium phosphate (or any similar strong detergent) to 10 gallons of water. Add 1 pint of swimming pool chlorine or 1 quart of laundry bleach to kill the algae. Soak for one hour. Check pool chemistry for cause of algae growth.
3. **Removing Calcium Or Mineral Deposits:** ***Caution*** Do not use muriatic acid on cartridges until all oils have been removed as in step #1 above. Make sure all detergent has been thoroughly rinsed from cartridges.

If calcium or mineral deposits are present, perform step #1 above. Rinse. Then in a solution of 1 part muriatic acid to 20 parts water soak until bubbling action stops. Use a plastic garbage container or similar vessel. Use a plastic garbage container or similar vessel. Check pool chemistry for high pH or Alkalinity. Repeat Normal Cleaning Procedure.

WARRANTY POLICY

EKO³ Systems, Inc. (EKO³) warrants equipment of its manufacture and bearing its identification to be free of defects, workmanship and material. EKO³'s liability under this warranty extends for a period of one (1) year from date of installation.

EKO³ disclaims all liability for damage during transportation, for consequential damage of whatever nature, for damage to handling, inspection, installation or improper operation, and for determined suitability for the use intended by the purchaser (owner). Eko³ makes no warranties, either expressed or implied, other than those stated above.



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