



USE AND MAINTENANCE MANUAL FOR THE POWERTEC



NOTE: As with all electrical equipment, care and attention must be exercised at all times during its use, in addition to ensure that routine and preventative maintenance is carried out periodically in order to ensure safe operation. In particular the electrical supply cable should be regularly inspected by a competent person and immediate action taken to rectify any faults found. Failure to carry out maintenance as necessary, including replacement of parts to the correct standard, could render the equipment unsafe and the manufacturer can accept no responsibility in this respect. See the enclosed exploded drawings for correct replacement parts.

Before using your machine, you must familiarize yourself with all of it's components.

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Overview

The POWERTEC is a high-pressure restroom care machine that sprays a solution of water and detergent onto surfaces that need cleaning. Next, the solution and the dirt are removed by rinsing the surfaces with clean water. Then, with the same machine, it is also possible to vacuum the residual liquid from hard floors.

The POWERTEC has been designed for cleaning and sanitizing fixtures and other surfaces in restrooms and showers areas in the education sector and in areas open to public, such as train stations, airports, rest areas, swimming pools, fitness centres, saunas, hospitals, hotels and so on. The POWERTEC can be used in any other place where the system spray + rinse + vacuum is convenient.

Safety instructions (read carefully)

Every electrical device must be used only for its particular function, respecting the manufacturer's instructions. Failure to follow the instructions could result in serious bodily injuries to the operator (electric shock, electrocution, etc.). Today, machines are produced according to accident prevention regulations and qualified safety institutes approve them. However, irresponsible use may put people in serious danger. Carefully read the following points and be sure to understand everything before using the machine.

- Before connecting the machine's plug to the electrical socket, check that the voltage available is the same as indicated on the label of the machines.
- **Be sure that the electrical system is grounded and that it is supplied with a ground fault interrupter. (GFI)**
- Verify that the electrical plug complies with the wall outlet.
- Do not use adapters or multiple sockets without knowing the electrical input of each device connected to the socket.
- If any electrical extension is used, check that it corresponds to the absorbed power of the machine. It must be sealed against water.
- Take care of the cable. It is essential that it is protected from water, tearing and chemical agents. Do not repair the cable if it is damaged replace it with a new one.
- Do not pull the cable to move the machine or to extract the plug from the socket. Pull out the socket only when the machine is switched off.
- Do not handle the plug with wet hands.
- Do not spray water near outlets. Do not use the machine to spray or to suck corrosive liquids (acids or bases), explosive or inflammable liquids (gasoline, kerosene, solvents, etc.) or dust.
- Do not use the machine in an explosive environment.
- Do not allow the machine to be used by children and persons unable to understand the danger connected with using electrical power.

Safety instructions (CONT'D)

- Do not bring the end of the suction hose or one of the accessories near yours or others' face, particularly near ears and eyes: the sucked air could seriously damage them.
- If the machine is used as a wet vacuum cleaner, you must check the water level in the recovery tank regularly to avoid water being sucked in by the vacuum motor.
- Avoid vacuuming a big quantity of foam altogether. This might be sucked into the vacuum motor and damage it. Follow steps from paragraph "Working method".
- In case of abnormal function (very noisy motor, pump not on, extreme temperature rise, etc.) switch the machine OFF and pull out the plug.
- After use, clean the machine and store it in a dry and closed place.

Construction of the machine

The machine body contains and stores all the necessary devices for the application of the cleaning solution, manual brush agitation, high pressure rinsing, vacuuming and blow drying:

The POWERTEC Machine body is comprised of the following parts:

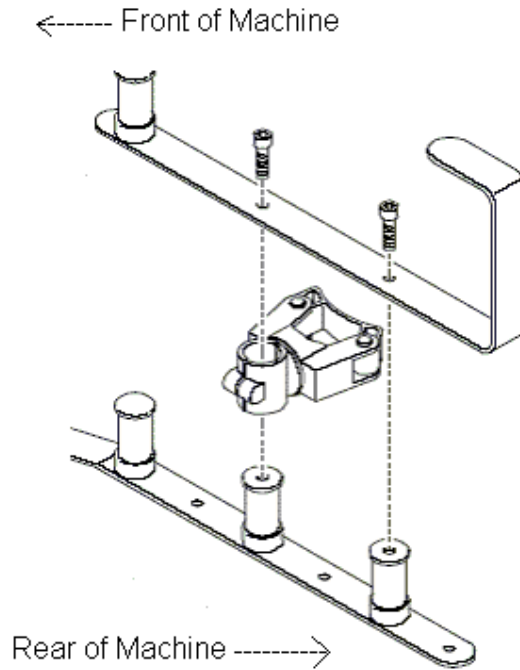
- The lower tank contains the clean water
- The upper tank is the recovery tank
- The discharge for the recovery tank is at the rear of the machine
- The high pressure pump and the vacuum motor are situated inside the lower tank
- The upper control panel houses all of the switches for the pump and the vacuum motor
- Attached to the lower tank is a tray for the one gallon cleaning solution concentrate
- There is also a pressure regulator and a chemical on off valve located on the lower back panel
- The vacuum intake hole is at the rear of the machine 1 ½ inch
- The blower outlet hole is located at the side of the machine 1 ¼ inch

Accessories included

- 33 foot wire reinforced vacuum hose 1 ½ inch
- 6 foot stretch blower hose 1 ¼ inch, that expands up to 30 feet, c/w reducer
- Single piece double "S" bend floor wand c/w hard floor squeegee tool and handle hook
- 50 foot high pressure spray / rinse hose
- High / low pressure spray gun
- Window / mirror squeegee
- Hard floor brush and handle
- One package of Dema tips c/w chart for chemical usage control
- Triangular stationary floor vacuum tool
- Fresh water fill hose

Bracket Assembly

Included with your PowerTec are 2 extra brackets that need to be installed on your machine. When you are unpacking the machine the brackets and 4 mounting screws will be located inside the recovery tank and should be mounted as shown below.



Accessory Placement

Once you have unpacked your PowerTec and attached the 2 extra mounting brackets, the accessories should be placed as illustrated below. Left and right sides are shown as if you were standing behind the machine.



Preparation for work

To prepare the machine and the area to be cleaned follow these steps:

1. Fill the fresh water solution tank, use the fill hose supplied or a clean bucket
2. Select the dilution tip then verify that the chemical line is well connected, also check the chemical concentrate level
3. On the high pressure hose Insert the male quick disconnect coupling (located at the end of the high pressure hose) into the female quick disconnect coupling (located on the control panel).
4. Connect the spray/rinse gun to the high pressure hose
5. Connect the plug of the machine to a grounded electrical socket. If the electrical socket does not have a built in GFI (**Ground Fault Interrupter**) please use the GFI provided.
Carefully read the instructions in the safety instructions paragraph.
6. Prepare the area to be cleaned by picking up the large debris and flushing any toilet or urinal that requires it
7. Remember to wear gloves, goggles, and any other necessary safety equipment required by law in your area.

Working process

- A. Applying the chemical solution
- B. Manual brushing (optional)
- C. High pressure rinsing
- D. Squeegee mirrors and flat surfaces
- E. Vacuuming
- F. Blow dry fixtures (optional)

STEP A – APPLYING CHEMICAL SOLUTION

1. Set up the machine just outside the door of the area to be cleaned.
2. Open the chemical input valve on the control panel.
3. Switch the solution pump on. (Located on the upper control panel).
4. Unroll the pressure line from the holder
5. Adjust the spray gun to inject chemical by pulling the nozzle away from the trigger and rotate to a fan pattern. In this position the spray gun is able to apply the water and detergent under low pressure.
6. Apply the solution on the surfaces to be cleaned, starting at the nearest fixture and working in a circular pattern. (Only apply the solution onto surfaces that will not be damaged water)
7. Proceed from top to bottom and cover all surfaces that need cleaning.
8. Applying the chemical should take 3 to 5 seconds for urinals, 6 to 8 seconds for toilets and 2 to 3 seconds for sinks. There is no need to over apply the chemical unless the situation calls for it.
9. Now that you have worked your way back to the door and the machine, turn off the chemical valve and rinse the chemical from the line onto the floor, again under low pressure. (Do not inject chemical under high pressure at any time).

STEP B – MANUAL BRUSHING

This highly effective step is an option when time permits or when you encounter heavily soiled floors.

When you are finished using the brush leave it by the door as you are going to high pressure rinse it.

STEP C – HIGH PRESSURE RINSING

In order to high pressure rinse, the nozzle must be changed from the low pressure chemical application setting. Moving the spray nozzle towards the trigger easily does this. You can vary the spray from pinpoint to a fan pattern.

1. Verify that the pump switch is on and work in a circular motion once again.
2. Spray clean the floor brush and set it aside
3. Pressure wash the fixtures from the top to the bottom.
4. For sinks pinpoint spray the faucets and fan spray the rest to rinse, this should take 7 to 10 seconds each.
5. For urinals pinpoint spray the manual flusher then fan spray the rest to rinse, this should take 15 to 18 seconds.
6. For toilets pinpoint clean the manual flusher, lift the seat clean hinges and seat bottom. While still on pinpoint place the nozzle under the rim and rotate, then spray into the bowl and around the bottom and base. Finish with a fan rinse of the fixture; this should take 30 to 40 seconds.
7. When you are finished with the pressure hose, loop and dry the hose and hang it on the machine.
8. Bring the floor brush out of the room and hang it on its holder on the machine

STEP D – SQUEEGEE MIRRORS AND FLAT SURFACES

If you decided to spray the mirrors at this time you can now squeegee the water off of the mirrors and hard surfaces including counter tops and partitions.

STEP E – VACUUMING THE FLOOR

After completing the above procedures you can vacuum the solution from the floor.

To vacuum the liquid, proceed as follows:

1. Connect the vacuum hose to the vacuum port at the rear of the machine
2. Connect the hose to the wand
3. Switch the vacuum motor on.
4. Vacuum floor from the front or door to the rear, this will keep the hose clean and dry.
5. Vacuum grouted tile on a 45-degree angle for better pick up.
6. Return the hose to the machine and loop it back on its holders

7. If you are finished vacuuming and you are not going to be using the machine for a quite while place the end of the vacuum hose into the clean water tank and suck the clean water out of the tank. This will rinse the hose and empty the fresh water tank at the same time. Do this before you loop the hose.

NOTE: After vacuuming the residual liquid, do not re-fill the clean water tank before draining the recovery tank.

STEP F – BLOW DRY FIXTURES (OPTIONAL)

This optional step is used when the area cleaned is going to be in use immediately after the above procedures are completed. Only the “touchables” need to be dried; faucets, flushers and toilet seats.

Turn the vacuum switch on and connect the stretch blow hose to the outlet hole on the side of the machine. When drying toilet seats work in a circular motion, from the center out to avoid splashing.

MAINTENANCE

The POWERTEC is a machine for professional use. Problems caused by improper use are not covered by warranty.

For proper maintenance follow these procedures:

1. After using the machine, before storing it, remove all the water from both tanks. Drain it completely by letting the pump work and keeping the spray lever pressed. This is to clean the spraying system of the machine, including the pump, the couplings and the nozzle
2. Clean (at least every 2 months) the water filter, removing it from the machine and rinsing it under water.
3. Bring the machine to a service centre for routine maintenance of all the parts subject to wear. In particular: pump and vacuum motor. There are some parts, like carbon brushes, bearings, and so on, which must be replaced in time to avoid serious damage to the components upon which they are assembled. This damage cannot be covered by warranty. This maintenance should be done every 500 working hours.

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