



SCARIFIERS

Hand-held & Walk-behind



NEEDLE SCALERS

Hand-held & Extended Reach



GRINDERS/SANDERS

Hand-held & Extended Reach



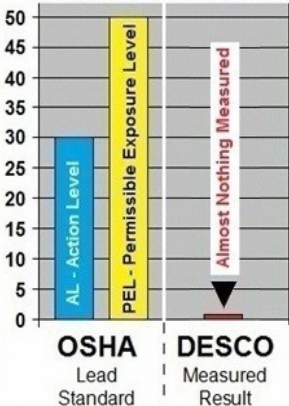
INDUSTRIAL VACUUMS

Hazmat & Radiological



OSHA Compliant*

(Micrograms per Cubic Meter)



*Industrial Hygiene report results for tools tested.



VAC-Pump

Vacuum with Integrated Pump
with HEPA Filtration



Vacuum/Pump Configuration

Part	Description	Accessories Furnished
305.5200	Vacuum-Pump, electric, 19 gallon tank, with dolly cart and HEPA filtration.	Pickup hose (13'), discharge hose (50'), curved wand, extension tubes and floor nozzle.

NOTE: Designed for *liquid pickup only*. Not to be picked up are a) dry, damp or hazardous dust and, b) flammable, explosive, or corrosive liquids.

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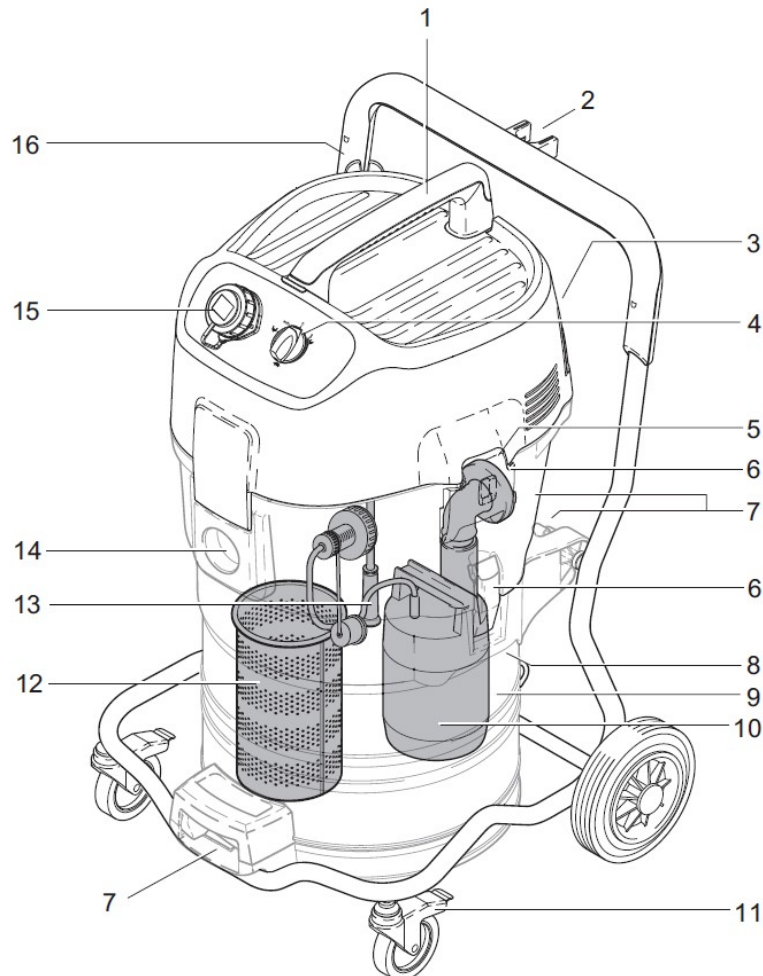
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1.0 Description

1.1 Purpose

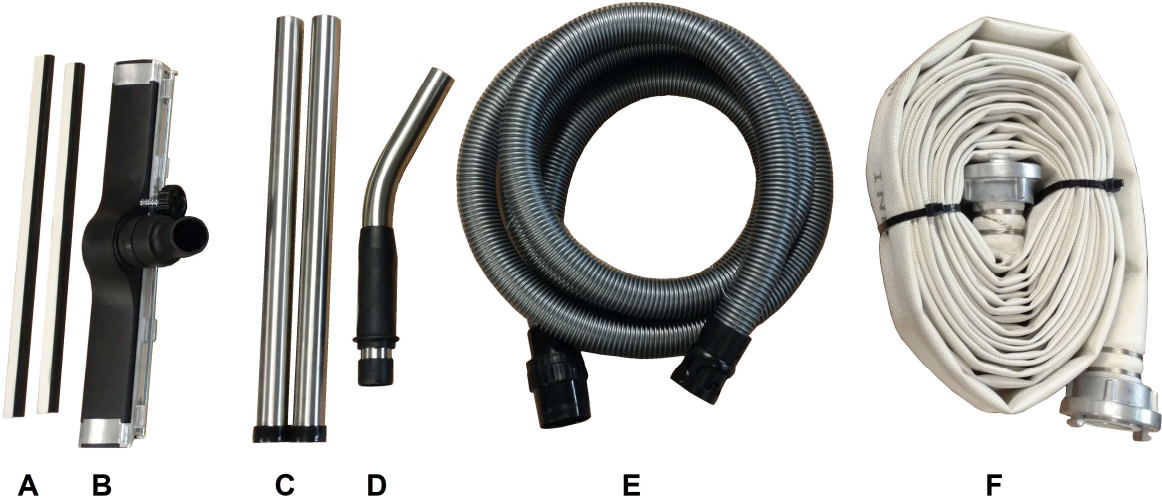
The VAC-PUMP is a vacuum with integrated pump designed for **liquid water pickup only**. Not to be picked up are a) dry, damp or hazardous dust, b) heavy sediment, sludge, mud or, b) flammable, explosive, or corrosive liquids.

1.2 Operating Elements



Ref	Description	Ref	Description
1	Handle	9	Holding tank
2	Suction pipe holder	10	Sump pump
3	Accessory holder	11	Castor with brake
4	Switch, function control	12	Strainer basket
5	Coupling, water exit	13	Hose for automatic level control
6	Retaining clamp	14	Inlet, suction
7	Tank locks	15	Socket, sump pump power
8	Handle	16	Hook, cable storage

1.3 Accessories Furnished



Key	Desc
A	Squeegee blades
B	Floor tool
C	Extension tubes

Key	Desc
D	Curved wand
E	Pickup hose
F	Discharge hose

1.4 Consumables & Accessories

Part	Description
305.1095	HEPA Filter
305.15365	Hose, pickup, 13' (ribbed)
305.7567	Hose, discharge, 50'
305.15352	Replacement squeegee blades for floor tool (2/set)

1.5 Technical Specifications

Voltage	115V
Cord	50' (3.05 m), with GFCI plug.
Tank Size	19 gal (86 ltr)
Hose, pickup	13' standard.
Hose, discharge	50' standard. Optional: 2 additional 50' lengths.
Weight	97 lbs.

2.0 Safety

 **PLEASE READ AND FOLLOW ALL WARNINGS** 

2.1 Read Operating Instructions

Always become familiar with all the instructions and warnings before operating any machine or power tool.

2.2 Hazardous Material and Safety

Safety is your primary concern when working with or near hazardous material (HAZMAT). This applies to yourself, your co-workers and the environment in which you are working. In this regard, please observe the following:

- **Your Responsibility** – It is your responsibility to understand the risks of the substances being cleaned and other job site hazards. Then put in place safety precautions to address the hazards that are situation appropriate.
- **Situation Appropriate** – Safety practices for HAZMAT handling are *substance dependent* and safety precautions must be *situation appropriate*. For risks and mitigating precautions, consult a qualified *safety professional*.
- **Personal Protection Equipment** – Safety precautions may require use of personal protection equipment. This may include: A. Eye protection (goggles), B. Respiratory protection (mask or respirator), C. Skin protection (gloves and/or other protective clothing), and/or D. Other safety precautions. For risks and mitigating precautions, always consult a qualified *safety professional*.
- **Safety Professional** – For substance and situation appropriate safety handling guidelines, always consult an appropriate safety professional, such as an Industrial Hygienist or Radiological Protection professional.
- **Regulatory Compliance** – Procedures for safe handling and disposal of HAZMAT should conform to EPA and local regulations.
- **Scope of Manual** – The scope of this manual is general safety, use and maintenance required to safely operate the vacuum unit. Health and safety risks directly related to the specific HAZMAT being handled is not covered in this manual.

2.3 WARNING – Reduce Risk of fire, Electric Shock, or Injury

- Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
- To avoid electrical shock, do not expose to rain, store indoors.

2.3 WARNING – Reduce Risk of Personal Injury

- Use only as described in this manual. Use only manufacturer's recommended attachments.

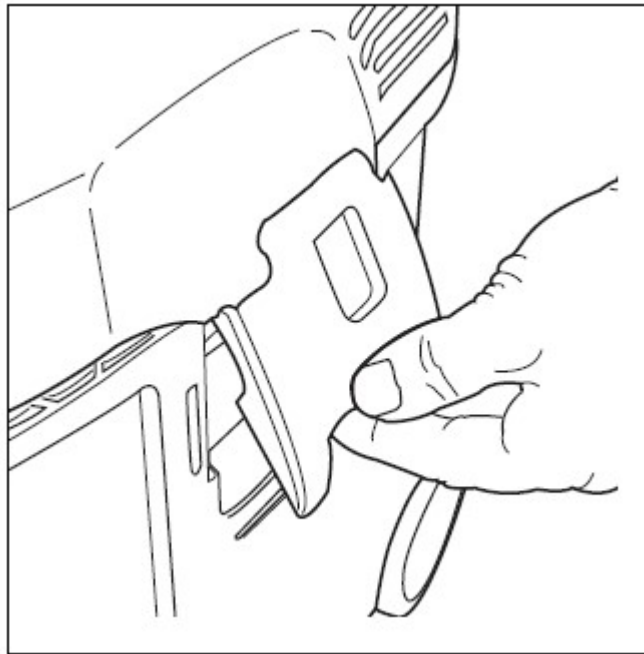
- Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
- Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- Turn off all controls before unplugging.
- Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Connect to a properly grounded outlet only. See grounding instructions.

SAVE THESE INSTRUCTIONS

3.0 Pre-Operation

3.1 Assemble the Machine (first time use only)

- *Un pack* – Remove machine from shipping box and remove packing material.
- *Remove accessories* – Look inside tank for additional accessories and packing material. Remove accessories and discard packing material.



3.2 Inspection

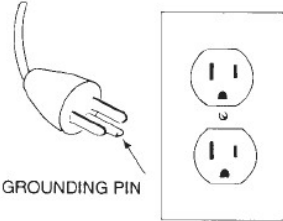
- *Physical Inspection* – Carefully inspect the vacuum head and tank for physical damage that would affect safety or performance. For example, inspect: 1) tank for punctures, 2) head/tank gasket for proper seal, 3) tank latches are securely holding vacuum head on tank. Correct as required.
- *Filtration Components* – Inspect HEPA filter, filter guard and filtration components to ensure they are properly installed and have remaining life that is sufficient to complete the task at hand.

3.3 Jobsite Setup

- *Locate Vacuum* – Position vacuum unit on stable ground within hose reach of work site. Secure vacuum to stationary object if necessary to ensure safety.
- *Install Suction Hose* – Attach clasp end of hose to vacuum tank and cuff end of hose to vacuum tool.
- *Attach power cord* – This machine is designed to operate on a standard 15 amp, 115 volt, 60 HZ, AC circuit. Voltages below 105 volts AC or above 125 volts AC could cause serious damage to the motor.

3.4 Grounding Instructions

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. No adapter should be used with this appliance.



Use Grounded Outlet



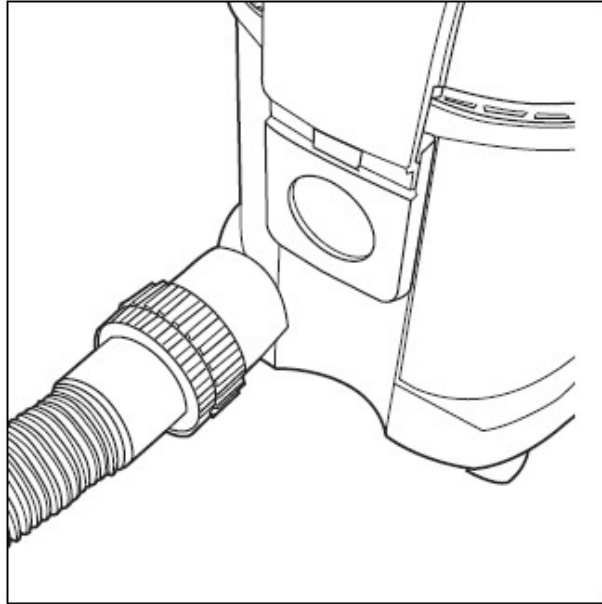
Adapter NOT Recommended

4.0 Operating Instructions

4.1 Connections

4.1.1 Connect Input Suction Hose

- Insert the suction hose into the suction port on front of tank.



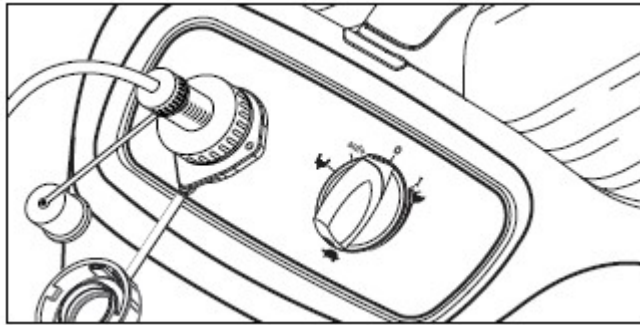
4.1.2 Connect Output Discharge Hose

- Locate discharge hose (A).
- Locate discharge port (B) on back of tank.
- Insert coupler (A) into receptacle (B). Turn counterclockwise to lock.
- **Note:** The discharge hose is 50' long. Up to 2 additional 50' lengths of discharge hose may be connected end to end for a total length of 150'.



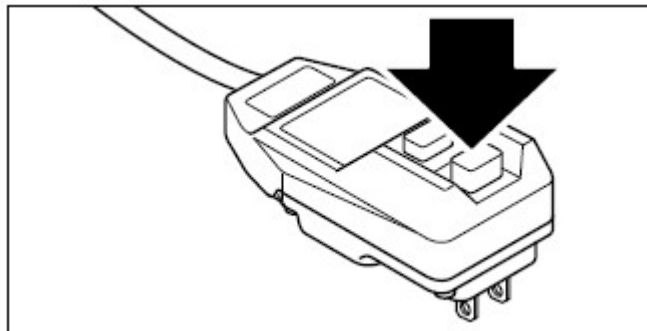
4.1.3 Connect Sump Pump Power

- Locate pump power plug at end of cord exiting rear of tank.
- Locate pump power receptacle on control panel. Remove cover.
- Insert power plug into power receptacle as shown.



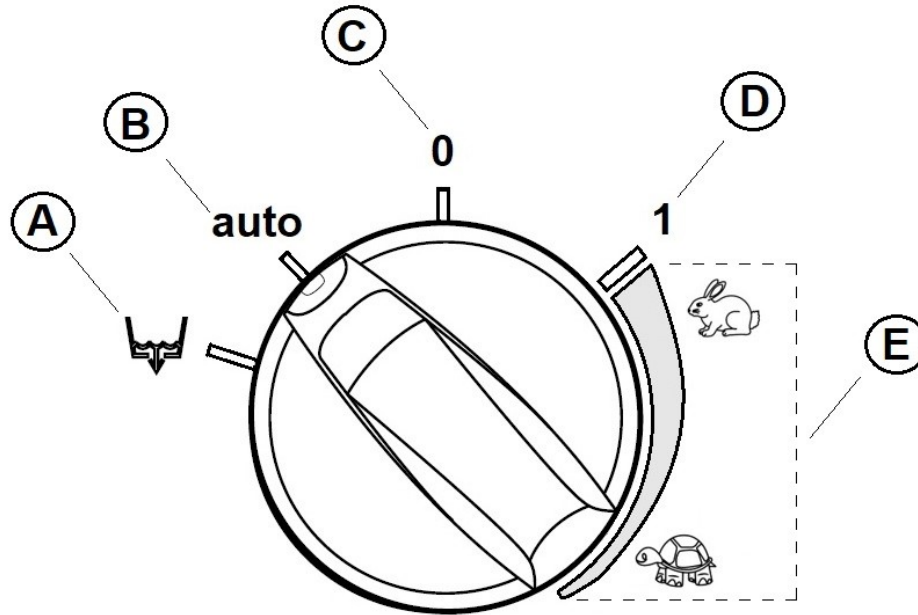
4.1.4 Connect Main Power Cord




- Connect GFCI power plug to grounded outlet.
- Reset GFCI breaker by pressing top button.



4.2 Function Switch

Machine operation is controlled with the function selection switch. The **automatic mode (B)** is recommended for most situations.

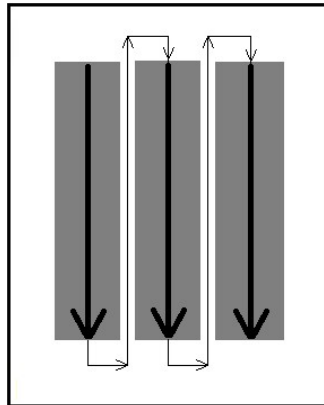


Key	Symbol	Description
A		Pump Only Mode – No suction. Only the sump pump runs. <ul style="list-style-type: none"> • A touch position (resets automatically). If it is pressed once, the submerged pump works for 30 seconds. At the same time the submerged pump is protected from running dry. • The tank can be emptied with this function.
B	auto	Fully Automatic Mode – Both suction and pump run. <ul style="list-style-type: none"> • Suction runs continuously at maximum power. • Pump runs in cycles as needed to expel water from tank.
C	0	Off – All stop. Neither suction nor pump runs.
D	1	Suction only, fixed speed. <ul style="list-style-type: none"> • Suction runs at maximum power. • Pump off.
E		Suction only, variable speed, <u>maximum</u>. Pump Off
		Suction only, variable speed, <u>minimum</u>. Pump Off

5.0 Applications and Techniques

Effective water removal is achieved by following a few guidelines in combination with your own practical experience in special fields. Here are some basic tips:

- Always read, understand and follow all safety and use instructions before using this device.
- Do a readiness check before starting. For example,
 - Ensure safety measures are in place and situation appropriate.
 - Check hoses and attachments to be properly connected and free of damage.
 - Check the motor head to ensure the HEPA filter and filter shield are installed properly. Never operate without HEPA filter and filter shield.
 - Check the function of the water level limiter as described in section 6.2.2.
- Work the floor in a grid pattern for maximum productivity. Break up the area into a system of grids. Complete one grid before moving to the next. Use a stroke length that is convenient to the surface and your arm length.

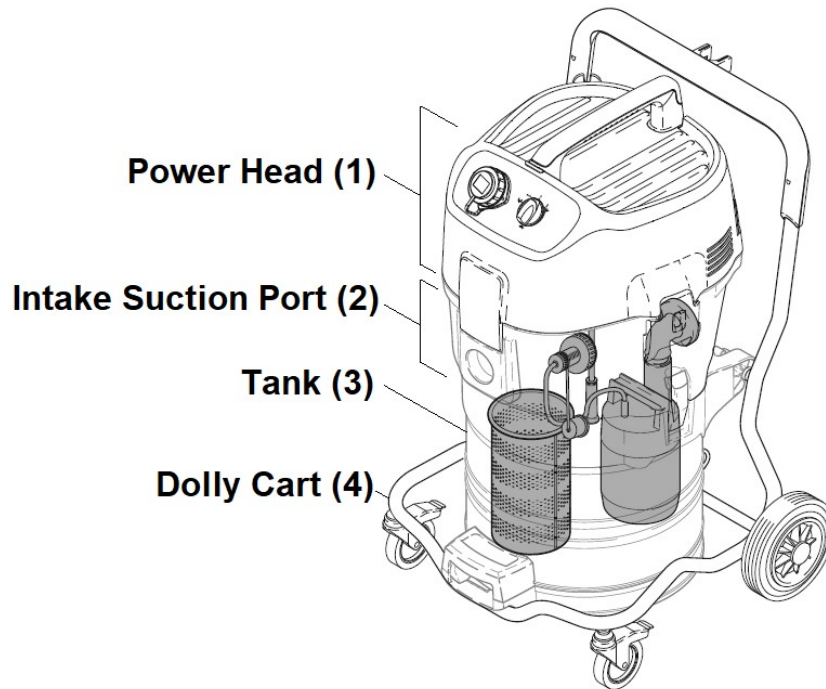


- The device is designed to pickup large amounts of shallow water from a floor. In this application, the vacuum will usually be lifting a combination of water and air. Combined water/air is significantly less stress on the vacuum components.
- Do not use the device as a water pump where the intake suction hose is completely submerged in water for extended periods. Doing so will overheat the vacuum motor and damage the device. For limited periods of up to 5 minutes per use, it is acceptable to submerge the intake hose to pickup water. Each water-only use should be followed by a 15 minute cool down period.
- If foam appears while picking up water, stop work immediately and empty the tank.

6.0 Maintenance, Cleaning and Storage

6.1 Service Access Dis-assembly

The unit breaks down into the following four (4) major components for service, cleaning and maintenance.



6.1.1 Remove Power Head – Release latches on both sides. Lift power head from vacuum body.

6.1.2 Remove Intake Suction Port – With power head removed:

- 1) release latches on both sides and,
- 2) lift input port from vacuum tank

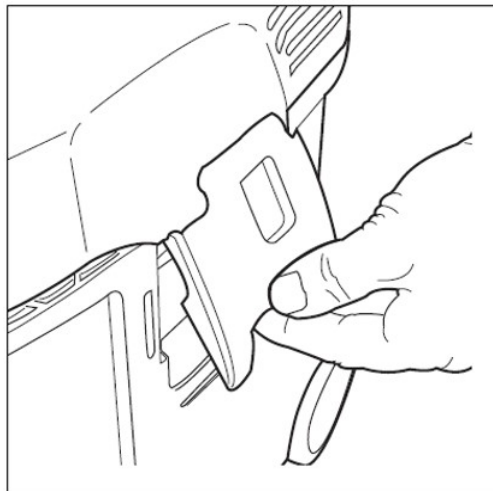


Fig 6.1.1 – Power Head Removal

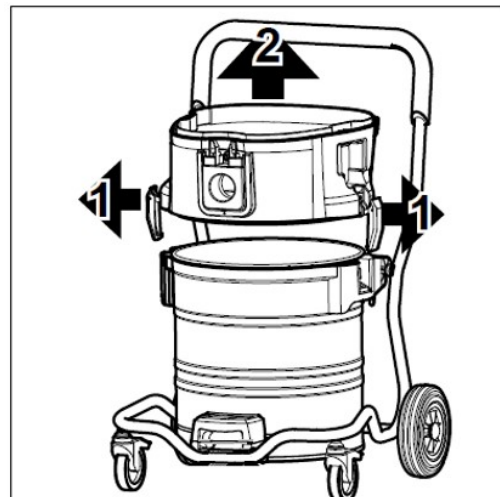


Fig 6.1.2 – Input Suction Port Removal

6.1.3 Remove Tank from Cart – With power head and intake suction port removed:

- 1) Release tank base latch (A),
- 2) Release tank pivot lock (B) on both sides and,
- 3) Lift tank from dolly cart using handles (C).

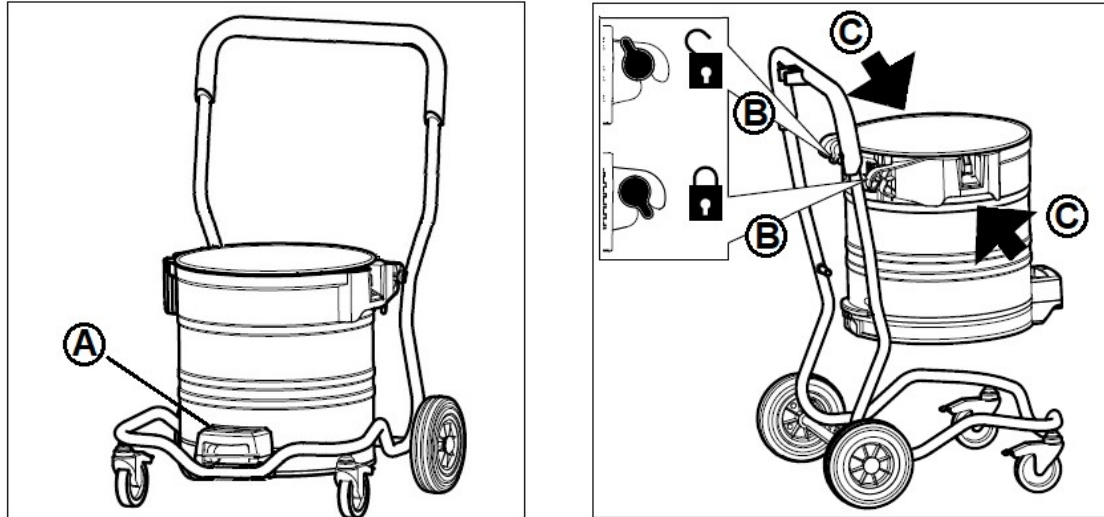


Fig 6.1.3 – Tank base release latch.

6.1.4 Empty Tank without Removing – With power head and intake suction port removed:

- 1) Remove strainer basket from tank, set aside (not pictured),
- 2) Release tank base latch (A),
- 3) Tilt tank backward by lifting from lower latch. Tank will pivot backward to drain remaining water.

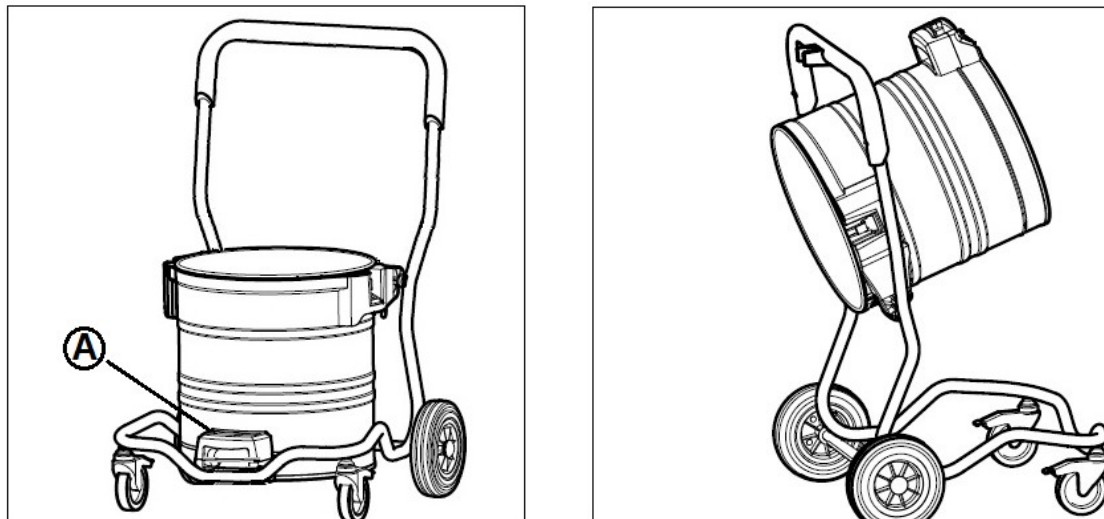


Fig 6.1.4 – Tank base release latch.

Tank in residual drain position.

6.2 Cleaning

Periodic cleaning is required to keep the device in good working order.

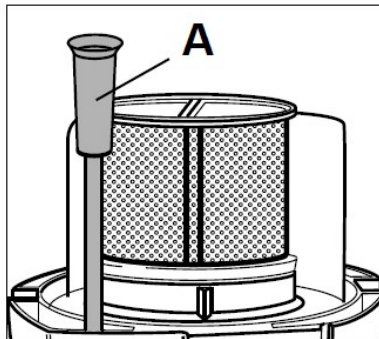
- **Clean before storing** – always clean before placing into storage.
Note: Before storing, cleaned components should be set aside to air dry completely before reassembling.
- **Periodic Inspection** – During operation, a periodic inspection of the device should taken. Particularly when the device has been used for extended periods or when used to pickup very dirty water. Under these circumstances an intermediate cleaning and filter inspection is warranted.

6.2.1 Power Head and Intake Suction Port

- Remove power head and intake suction port form tank.
- Wipe power head and suction port surfaces with a clean damp cloth. When no visible dirt remains, wipe dry with a clean dry cloth to remove all moisture.
- Pay close attention to gasket and sealing surfaces where components join to ensure proper seal is obtained upon reassembly.

6.2.2 Clean and Check Water Level Limiter

- The water level limiter (A) is a hose-like sensor which detects the presence of water. The limiter is attached to the power head and hangs into the tank.
- Wipe the sensor tube with a clean cloth.
- Check for cuts, kinks or other damage.
- Always use care not to damage sensor when placing power head on tank.



6.2.3 Tank and Dolly Cart

- Remove strainer basket. Empty of solid material, rinse and dry. Never operate device without strainer basket in place.
- Rinse tank and cart with clean water.
- If dirt or residue remains, apply household spray cleaner and scrub to remove dirt. Rinse with clean water.
- Drain tank by turning upside down. Wipe tank and dolly cart with clean dry cloth to remove remaining moisture
- Tank should be completely dry before storing. Allow tank to air dry for 1-2 hours or until completely dry.

6.3 HEPA Filter Inspection and Replacement

- Remove power head from vacuum body.
- Place power head **upside down** on table or suitable work surface.

6.3.1 Remove filter retainer (1) – A) turn filter retainer counterclockwise to unlock and, B) lift to remove filter retainer.

6.3.2 Remove shield (2) and filter (3) – a) remove shield (2) by lifting up, b) remove HEPA filter (3) by lifting off of seating surface.

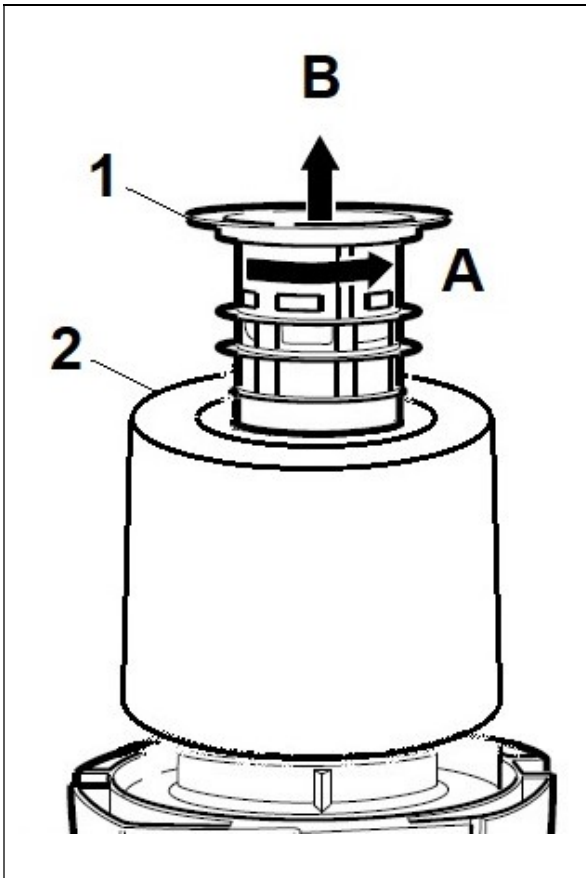


Fig 6.3.1 – Remove filter retainer

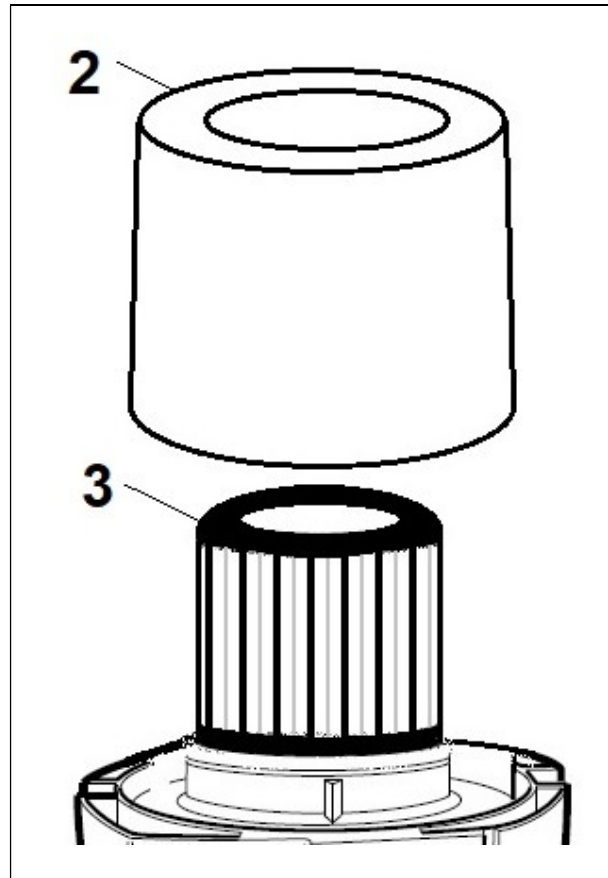


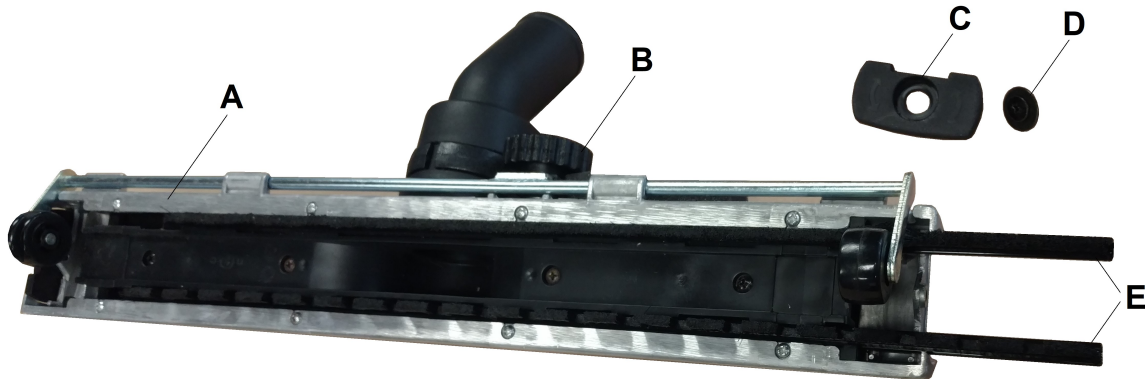
Fig 6.3.2 – Remove shield and filter

6.3.3 Inspect HEPA Filter

Examine the HEPA filter for damage or compromise. The HEPA filter should be clean, dry and undamaged. Replace filter if damaged, punctured, clogged, or sealing surfaces are compromised.

6.4 Floor Tool Blade Replacement

- Place floor tool (A) upside down on table or suitable work surface.
- Adjust height to maximum using adjusting knob (B).
- Remove end cap (C) by removing Phillips head screw (D).
- Remove blades (brush or squeegee) (E) by sliding out.



6.5 Storage

When work is complete, prepare the device for storage as follows:

- Empty tank as described in section 6.1.4
- Clean the device as described in section 6.2
- Inspect the HEPA filter as described in section 6.3
- Coil the power cord and hang on the hanger as shown in figure 6.5.
- Pack accessories away.
- Store the device in a dry room where it is protected from unauthorized use.

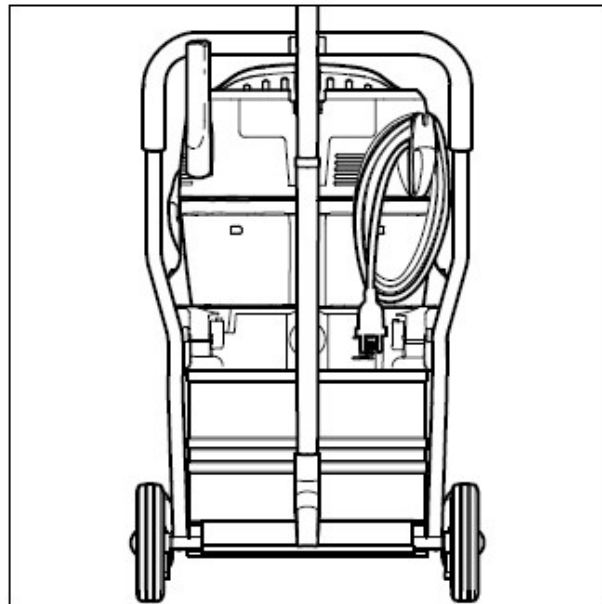


Fig 6.5 – Power cord storage

7.0 Troubleshooting

Malfunction	Probable Cause	Solution
Motor does not start	<p>No power – Main power breaker or fuse blown</p> <p>GFCI tripped – Ground Fault Circuit Interrupter tripped.</p> <p>Overheated – Thermal overload protection tripped.</p>	<p>Check main power breaker and reset as required.</p> <p>Reset GFCI by pressing top button on GFCI power plug.</p> <p>Turn off vacuum and allow to cool for approx. 15 minutes.</p>
Motor does not work Switch in “1” position	Tank is full.	Switch vacuum off. Empty the tank.
Motor does not work Switch in “auto” position	<p>Tank is full. Submerged pump not plugged in..</p> <p>Tank is full. Automatic level control is faulty</p> <p>Tank is full. Submerged pump overloaded or faulty.</p>	<p>Plug in submerged pump.</p> <p>Check the water level limiter for blockage. See section 6.2.2 for more information.</p> <p>Check submerged pump by switching to pump only position. Replace pump as required.</p>
Submerged pump does not work. Switch in auto or pump only .	<p>Pump impeller blocked by dirt.</p> <p>Thermal overload triggered</p> <p>Pump faulty</p>	<p>Remove dirt.</p> <p>Allow pump to cool.</p> <p>Replace pump</p>
Reduced suction power	<p>Variable suction setting too low</p> <p>Clogged hose</p> <p>Strainer basket clogged</p> <p>HEPA filter clogged</p>	<p>Increase suction or select automatic mode.</p> <p>Clean hose/nozzle</p> <p>Clean strainer basket</p> <p>Replace HEPA filter</p>