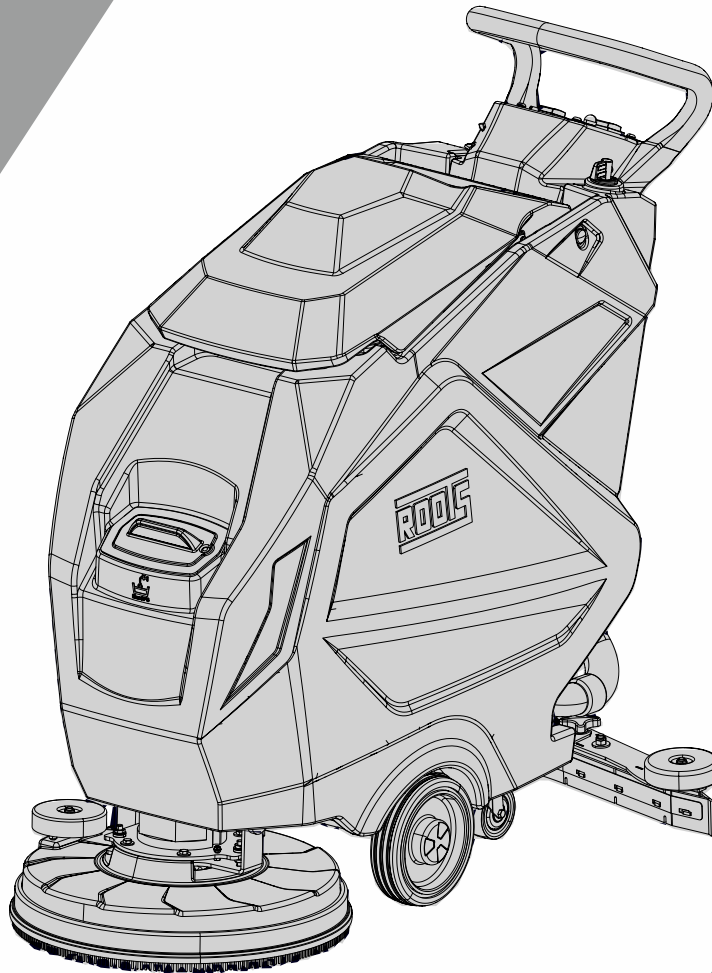
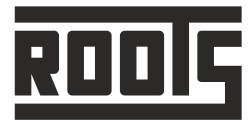


RootsScrub E4043

*Walk Behind Scrubber Drier
Electric*



230V/50Hz

Operator's Manual

Read this manual completely and understand the instructions before operating the machine.
"English Version"

TABLE OF CONTENTS



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IMPORTANT NOTE:

Roots Multiclean Ltd. (RMCL) is not liable for any legal claims that may arise as a direct or indirect result of the contents of this manual.

Roots Multiclean Ltd.

R.K.G. Industrial Estate, Ganapathy,

Coimbatore - 641 006, India.

MACHINE DATA

Please fill at the time of installation for future reference:

Model No. - _____

Serial No. - _____

Battery No. - _____

Installation Date - _____

USER MANUAL

ROOTS philosophy is to continually improve all of its products. For this reason we may modify the design, appearance and engineering of our products periodically.

Therefore, some changes, modifications and improvements may not be covered in this manual.

For the latest Operator's Manual, visit:

www.rootsmulticlean.com/user-manual/

P/N: 557321018-00, Rev: B, Date: 06/2020

Prepared by: KM-NPM TD Dept.



PREFACE

Dear Customer,

We are pleased with your having chosen the **RootsScrub E4043** machine for your cleaning requirements. Backed by our industry expertise that spans across decades, we assure you that the machine comes with our Roots promise of quality, efficiency and performance.

We advise you to carefully read through the instructions prior to the operation of the machine. This manual contains detailed instructions for the proper operation of the machine, along with important information regarding its handling, care, maintenance and service needs.

We are sure that you will find the machine and its performance to your utmost satisfaction. Once again, we thank you for choosing Roots Multiclean Ltd. (RMCL) as a trusted partner for your cleaning requirements and solutions.

USAGE, HANDLING AND MODIFICATIONS

Use of the product beyond the specified scope of functioning is deemed improper and the manufacturer cannot be held liable for any damages which may arise due to this.

This machine may be used only by persons who are trained or are familiar with the machine and are aware of the possible hazards involved. The appropriate Accident Prevention Regulations as well as applicable general regulations pertaining to Safety and Health at the work place must be adhered to by the user.

Modifications made to machine without the manufacturer's consent will relieve the manufacturer of responsibility and any possible liability for consequential damage.

NOTES ON DOMESTIC WARRANTY

Please refer to the **Limited Warranty card supplied along with the machine** for additional information. This Warranty Policy is applicable only for the product sold within India.

If the product requires repair or maintenance work to be performed, please ensure that you get the machine serviced from an authorised service center or dealer of RMCL to ensure that the warranty is not void.

ACCEPTANCE OF THE MACHINE

On arrival of the machine at the shipping address, please check for any damage that may have occurred as a result of transit. In the event of any such damage, the purchaser is bound by responsibility to send a claim letter to the concerned authorized branch/dealer with a copy of the invoice. The letter should be sent within 24 hours of receipt of the machine.

THE MANUAL

All information contained is without obligation. RMCL particularly reserves the right to modify any equipment, technical specifications, colours, shapes, materials and the like so as to adapt them to local conditions all without previous announcement and without giving reasons. RMCL may stop manufacturing certain models without previous notice.

The Operator's Manual corresponds to the latest information available for this machine at the time it was printed. Minor deviations resulting from enhancements of the design cannot be entirely represented.

The Operator's Manual is an integral part of the machine and must not be misplaced.

RMCL reserves the right to change the product or contents of this manual without prior information.

For Battery, Motors, Engines and other OEM components related kindly refer to their manufacturers manual supplied along with the machine for instructions regarding usage, maintenance and service.

NOTE: Illustrations shown in this manual are for representative purpose only. Actual product may vary.

- We have specified the Model No./Type. in some contents/instructions.
- If Model No./Type has not been specified, the instruction will be applicable to all models.



Prior to first operation, read the manual carefully and strictly comply with the instructions contained.

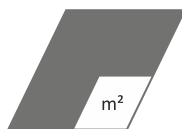


INTENDED USE

This automatic floor scrubber is intended for commercial use, for example in hotels, schools, hospitals, factories, shops, offices and rental businesses. It is designed to scrub hard floor surfaces (concrete, tile, stone, synthetic, etc.) in an indoor environment. This machine is not intended for cleaning carpets or sanding wood floors. Use only recommended pads/brushes and recommended floor cleaning detergents.

Do not use this machine in any other way other than described in this Operator's Manual.

TECHNICAL SPECIFICATIONS



Theoretical area coverage
- 1720 m²/hr



Air volume, vacuum - 100.8 cu.m/hr
Vacuum pressure (Min) - 1050 mm of H₂O



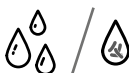
Working speed - 4 km/hr



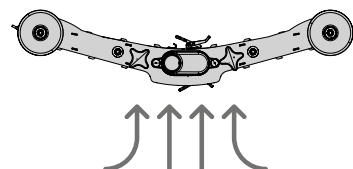
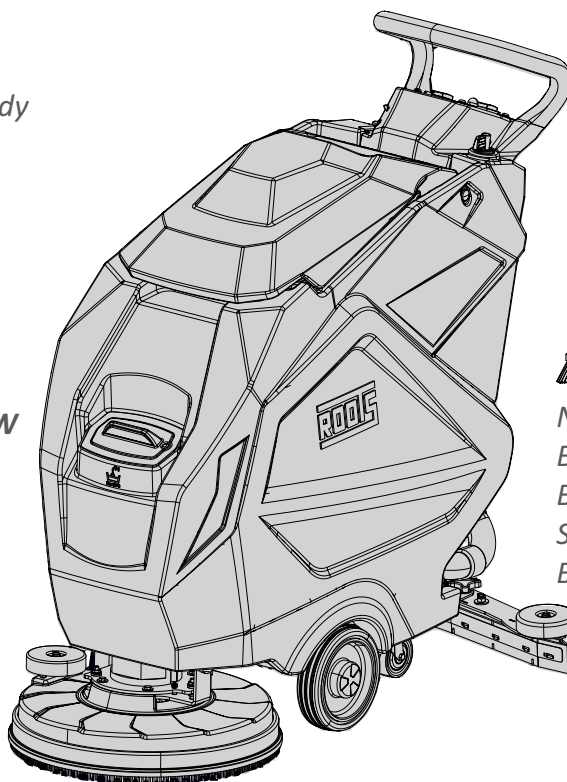
Weight of the machine ready
to operate - 120 kg



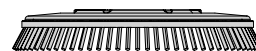
Power supply - 230 V/AC
Nominal power, Total (max.) - 1200 W
Brush motor power - 800 W
Suction turbine power - 400 W



Fresh water tank - 40 L
Dirty water tank - 40 L



Suction width - 750 mm

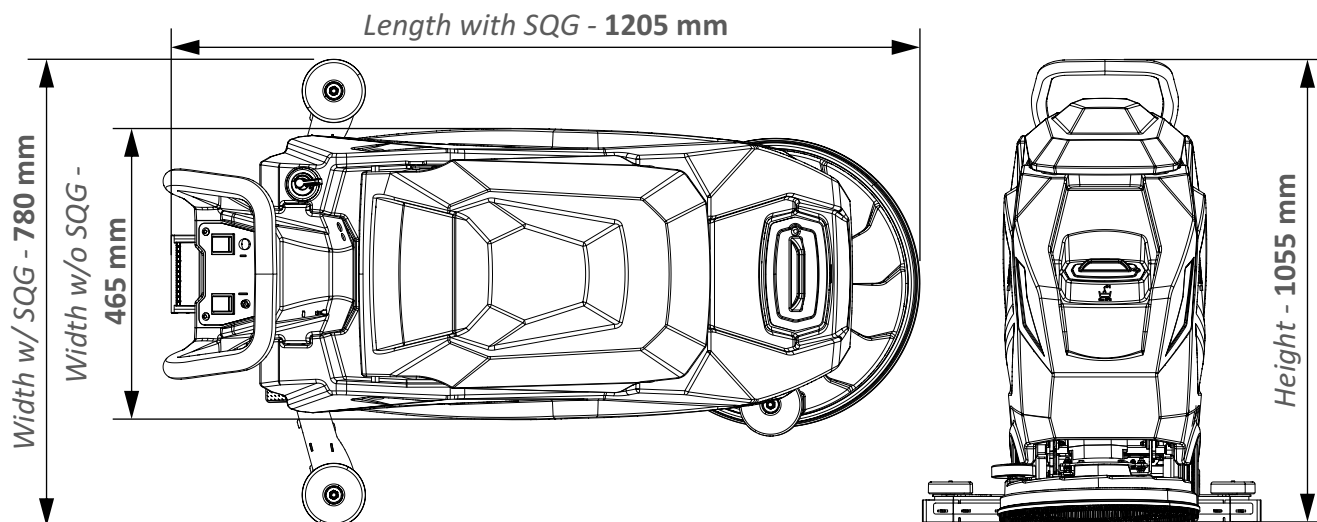


No. of brushes per machine - 1
Brush diameter - 430 mm
Brush speed (Min.) - 280 rpm
Scrubbing width - 430 mm
Brush pressure - 22 Kg



Sound level - 73.5 dB (A)

Dimensions:



SQG - Squeegee

SAFETY INSTRUCTIONS



SAFETY & WARNING SYMBOLS

All paragraphs in this manual referring to your personal safety, the safety of your machine and the environmental protection are attributed to one of the following warning symbols:

Safety Provisions (persons and goods)



Safety provisions in dangerous situation caused by misuse inaccurate adherence of instruction or prescribed work routine.

Caution (the machine)



Important information on handling the machine in order to maintain operability.

Ecological Hazard (the environment)



Due to use of substances representing an inherent danger to health of environment.

Read Manual



Prior to first operation, read the manual carefully and strictly comply with the instructions contained.

SAFETY INSTRUCTIONS

ELECTRICAL POWER CONNECTION SAFETY INSTRUCTIONS:



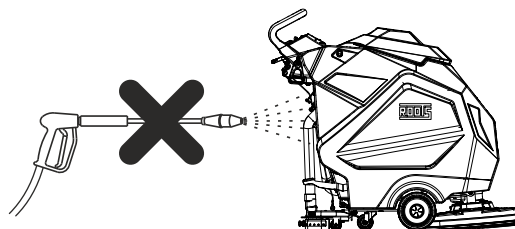
DANGER

- The voltage indicated on the name plate must correspond to the voltage of the electrical source.
- While working with fluids (such as detergents), we recommend the use of a safe socket with over current protection.
- Please use the mains cable authorized by the manufacturer; the same is also applicable when you replace the internal cables.
- Check the power cord with mains plug for damage before every use. If the power cord is damaged, please arrange immediately for the exchange by an authorized customer service or a skilled electrician.
- Never touch the mains plug with WET hands.
- Make sure that the power cord or extension cables are not damaged by running over, pinching, dragging or similar. Protect the cable from heat, oil, and sharp edges.

- The power cord must be checked regularly for damages, such as cracks or aging. If damage is found, the cable must be replaced before further use.
- If couplings of the power cord or extension cable are damaged replace the splash protection and the mechanical tightness must be ensured.



DO NOT CLEAN THE MACHINE WITH A WATER HOSE OR HIGH-PRESSURE WATER JET (DANGER OF SHORT CIRCUITS OR DAMAGE TO MACHINE).



APPLICATION SAFETY INSTRUCTIONS:



DANGER

- The water level indication hose must be cleaned regularly and checked for signs of damage.
- Never scrub or vacuum up explosive liquids, combustible gases, explosive dusts as well as undiluted acids and solvents! This includes petrol, paint thinner or heating oil which can generate explosive fumes or mixtures upon contact with the suction air. Acetone, undiluted acids and solvents must also be avoided as they can harm the materials on the machine.
- Do not scrub or vacuum up any burning or glowing objects.
- Do not use this machine as a vacuum cleaner.
- Humans and animals must not be scrubbed/vacuumed with this machine.
- Use only those chemicals recommended by the manufacturer and comply with their application, disposal and warning guidelines.
- Do not use the recommended detergents in an undiluted state. The products are safe for operations as they do not contain any acids, alkalis or environment hazardous substances. We recommend to keep the detergents out of reach of children. If the detergent comes in contact with the eyes, please rinse the eyes thoroughly with water, consult a doctor immediately if the detergent has been swallowed.



CAUTION

- This machine is not suitable for vacuuming dust. This endangers health.
- Please follow the regulations for disposing off dirty water.
- This machine is not a vacuum cleaner! Never suck in more fluid than what has been sprayed. Do not use to suck in dry dust!
- This machine must be used indoors only.

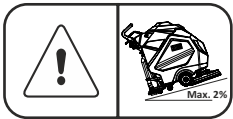
SAFETY INSTRUCTIONS



OPERATION SAFETY INSTRUCTIONS:

DANGER

- The operator must use the machine properly. The operator must consider the local conditions and must pay attention to third parties, in particular with children, when working with the machine.
- Always use appropriate gloves while working on the machine.
- The machine may only be used by persons who have been instructed in handling the machine or have proven qualification and expertise in operating the machine or have been explicitly assigned the task of handling the machine.
- The machine must not be operated by children or persons who have not been instructed accordingly.
- This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.
- Children should be supervised to prevent them from playing with the machine.
- Switch off the machine immediately in case of water leak.
- Do not open the hood/guards when the motor is running.
- This machine is for **WET** scrubbing only.
- The machine may be used only on indoor hard floorings and for operation on level grounds with a maximum inclination of up to 2%.



TRANSPORT SAFETY INSTRUCTIONS:

- The brush motor should be switched off and the brush head must be raised.
- Squeegee must be raised and secured.
- All water systems must be shut off to prevent water spill.

MAINTENANCE SAFETY INSTRUCTIONS:

WARNING

- Switch off the power prior to performing any cleaning or maintenance tasks on the machine, replacing parts or switching over to another function. In the case of mains operated machines, remove the mains plug.
- Maintenance work may be carried out only by approved customer service outlets or experts in this field who are familiar with the respective safety regulations.
- Please observe the local safety regulations regarding portable commercially used machines.
- Always attach a "Do Not Start" tag during maintenance procedures.

SPARE PARTS & ACCESSORIES:

WARNING

Only use accessories and spare parts which have been approved by the manufacturer. The exclusive use of original accessories and original spare parts ensures that the machine can be operated safely and trouble free.

EQUIPMENTS WITH ROTATING BRUSHES:

DANGER

- Use only brushes that are provided with the machine or specified in the Operator's Manual. The use of other brushes can affect the safety of the machine.
- Please keep in mind that the power cord or extension cable can be damaged when run over while operating the brush head with rotating brushes.

DANGER - Do Not Scrub Or Vacuum:
**Corrosive/Battery Fluids/Explosive/Flammable/
Magnetic/Radio-active/Biohazard Materials.**



MOTORIZED SUCTION HEAD:

CAUTION



PERSONAL PROTECTIVE EQUIPMENT (PPE):







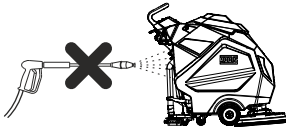






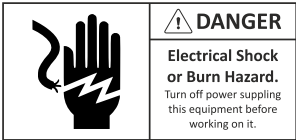
As necessary



SAFETY INSTRUCTIONS

SYMBOL & HAZARD PICTORIAL DEFINITIONS



 <p>Read the Operator's Manual</p>	 <p>General Warning</p>	 <p>Caution</p>	 <p>Ecological Hazard</p>
 <p>Motorized Brush Head</p>	 <p>Toxic Hazard</p>	 <p>Do Not Use High Pressure Jets</p>	 <p>Reset Warning</p>
 <p>Electrical Hazard</p>	 <p>STOP No Access</p>	 <p>No Smoking</p>	 <p>Do not let powercord come in contact with water or other fluids.</p>
 <p>Disconnect Powercord</p>	 <p>Electric Shock Hazard</p>		



ENVIRONMENTAL RESPONSIBILITY



The packaging material can be recycled. Please do not place the packaging into the ordinary refuse for disposal, but arrange for the proper recycling.



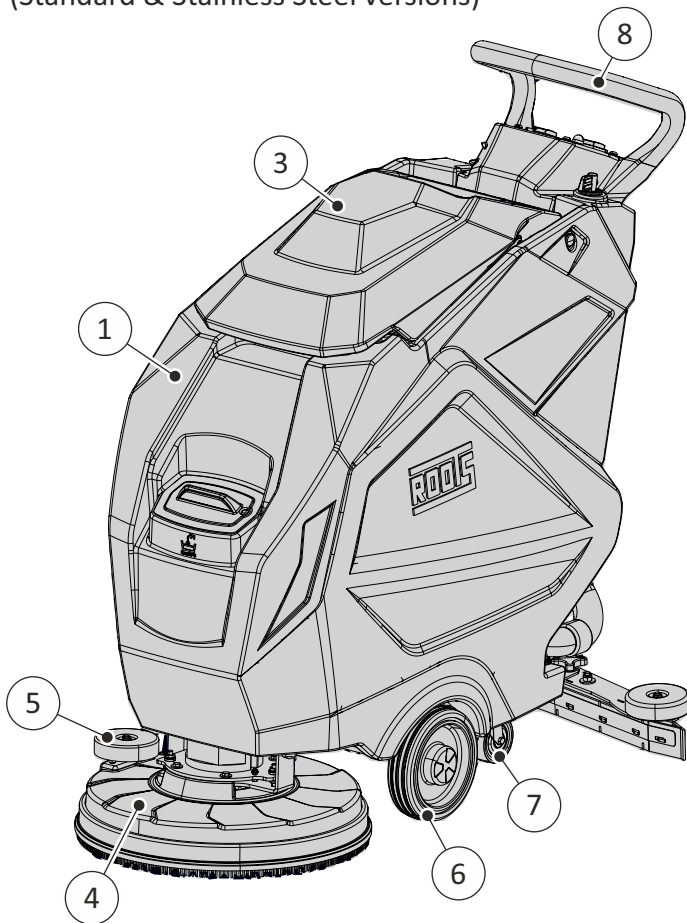
Old machines contain materials that can be recycled. Please arrange for the proper recycling of old machines. Batteries, electrical & electronic components contain substances that must not enter the environment. Please dispose off your old machine, batteries, electrical & electronic components using appropriate collection systems at the end of the product's life cycle.

KNOW YOUR MACHINE

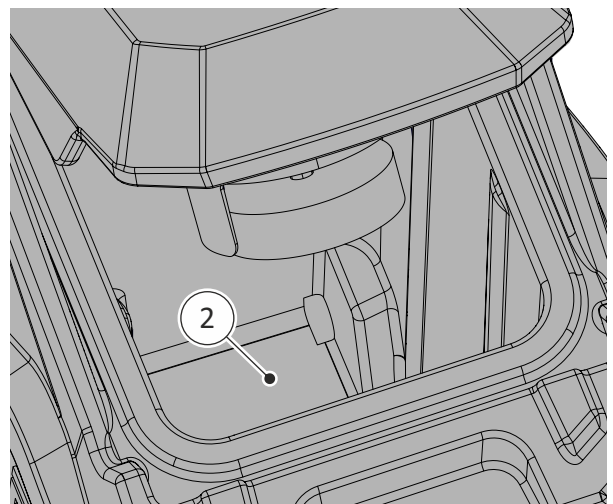
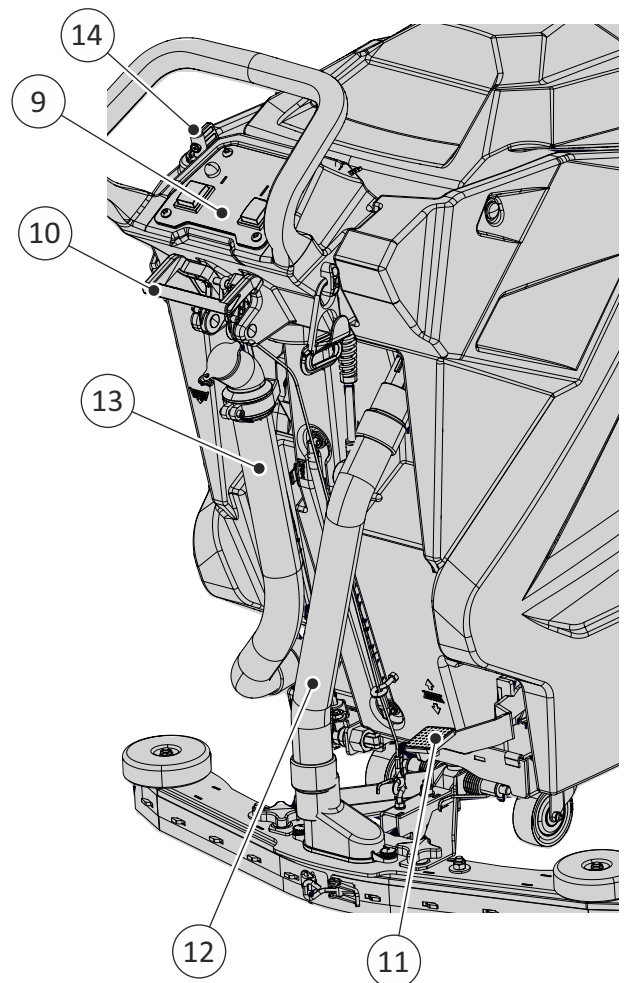


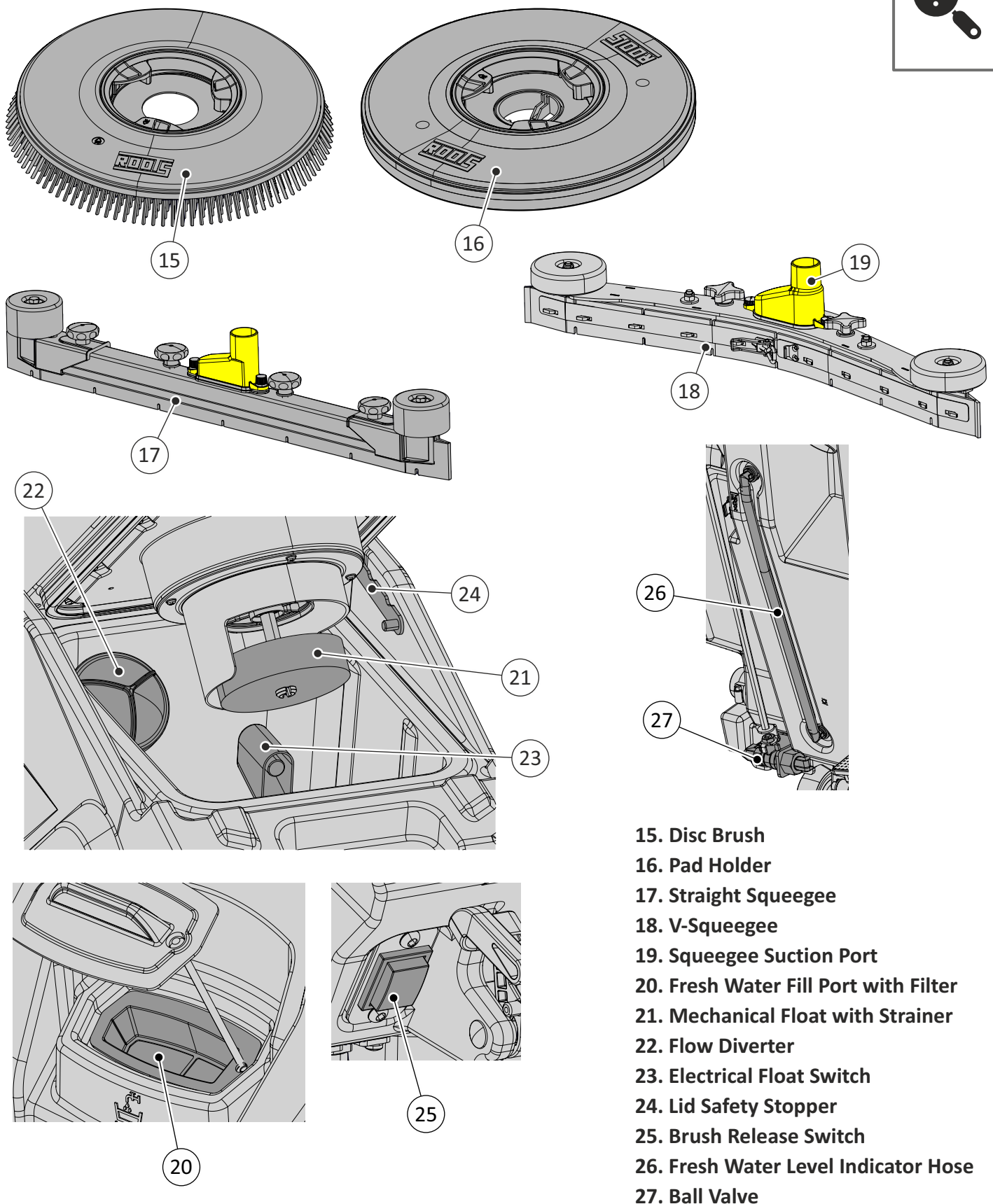
MAIN COMPONENTS OF THE MACHINE:

(Standard & Stainless Steel versions)



- 1. Fresh Water Tank
- 2. Dirty Water Tank
- 3. Lid with Suction Turbine
- 4. Brush Head
- 5. Deflector Roller
- 6. Main Wheel
- 7. Swivel Castor Wheel
- 8. Control Unit with Handle
- 9. Control Panel
- 10. Squeegee Raise/Lower Handle
- 11. Brush Head Raise/Lower Pedal
- 12. Squeegee suction Hose
- 13. Dirty Water Tank Drain Hose with Cap
- 14. Fresh Water Flow Control Knob

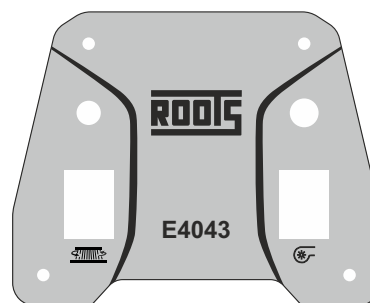
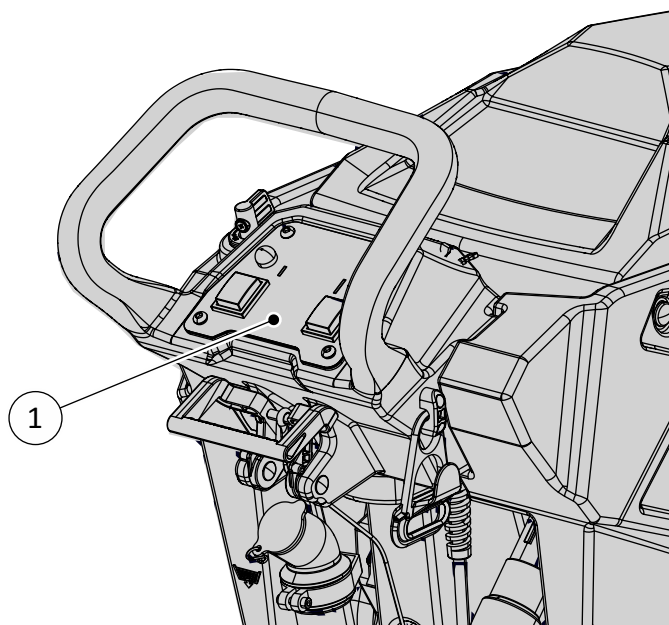




KNOW YOUR MACHINE

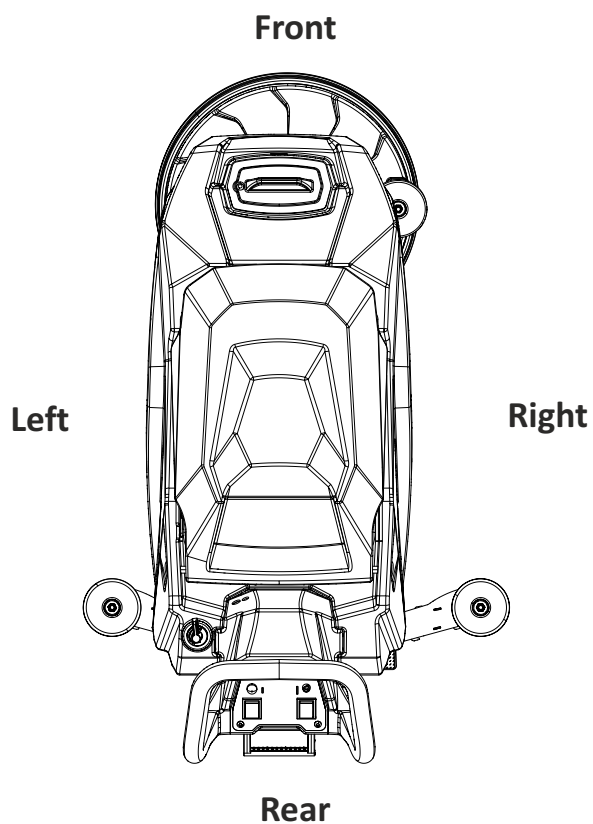


DECALS ON THE MACHINE:



(1)
Control Panel Sticker

MACHINE ORIENTATION:



WORKING PRINCIPLE



WORKING PRINCIPLE



A squeegee and suitable brushes or pads are required for wet cleaning of hard floorings. The rotating brushes (1) scrubs the floor thoroughly, removing dirt, by cleaning agent supplied from the fresh water tank (2) thereby cleaning the floor. The soiled water is drawn during the same cycle through the squeegee (3) and fed into the dirty water tank (4). Thus, the floor can be walked on immediately after it is dry and clean.

Note: This machine is a tank-in-tank design, fresh water and dirty water are stored in their respective compartments.

USEFUL TIPS:

- Prior to wet cleaning, it is necessary to clean the floor. This way, not only is the cleaning efficiency improved, but wear and tear of the brush is also substantially reduced.
- If floors are particularly dirty or if wax has to be removed (basic cleaning); the floor must be treated twice.
- During the first cycle, the floor is scrubbed with the cleaning agent selected according to the degree of dirt encountered, the squeegee remaining lifted.
- Allow the cleaning agent to act on the floor for approx. 5 or 10 minutes, complying with the manufacturer's instructions.
- Scrub the floor once again while the squeegee is lowered.
- Too much foam indicates excessive dosage or improper suitability of detergent for the existing kind of dirt.
- Detergent particles contained in the soiled water that are not used will cause formation of foam.
- Instructions for dosage are given on the detergent tank and operator must ideally adhere to manufacturer's recommendations.
- The ideal type of detergent and the perfect dosage applicable to it will come through sustained use of the machine.

NOTE:

Comply with instructions for correct dosage of detergent. Correct dosage will help optimize costs and also minimize impact on the environment. Too much foam can affect the performance of the machine.

MACHINE OPERATION

OPERATOR RESPONSIBILITY

The operator's responsibility is to take care of the machine's daily maintenance and routine checkups to keep the machine in good working condition.

The operator must also inform the supervisor when scheduled maintenance of the machine is to be carried out.



Read this manual completely and understand before operating this machine. Also ensure that the persons who are going to operate this machine have also read and understood the contents of this manual.

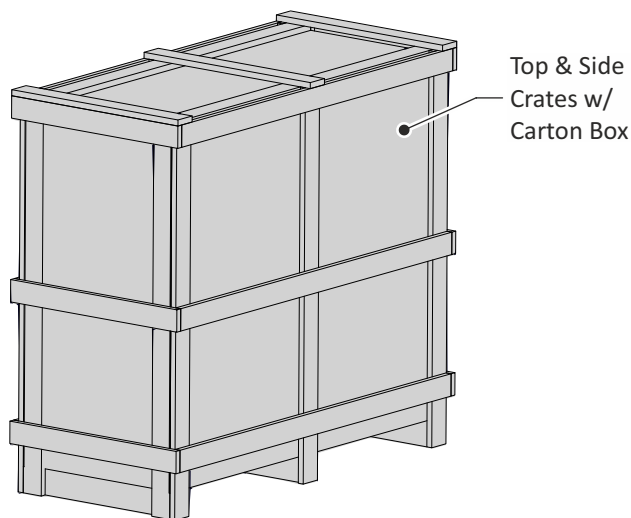
**Do not use this machine to collect any external water.
Do not use this machine as a vacuum cleaner.**

THIS MACHINE IS INTENDED TO CLEAN FLOORS ONLY.

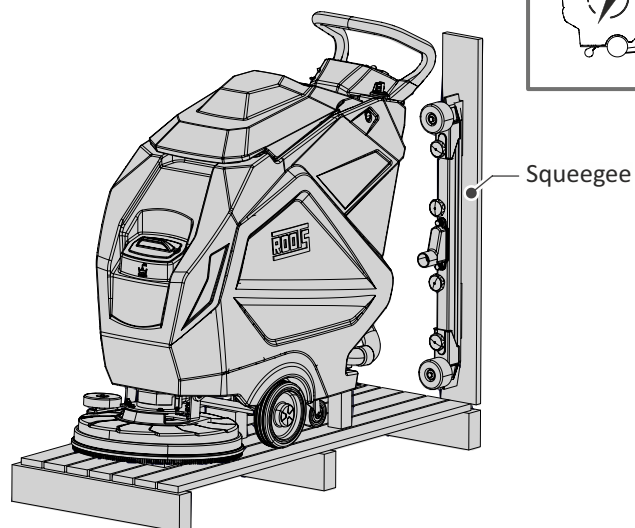
UNPACKING

The machine is shipped in a packed condition to the customer's place. To unpack the machine follow the below steps:

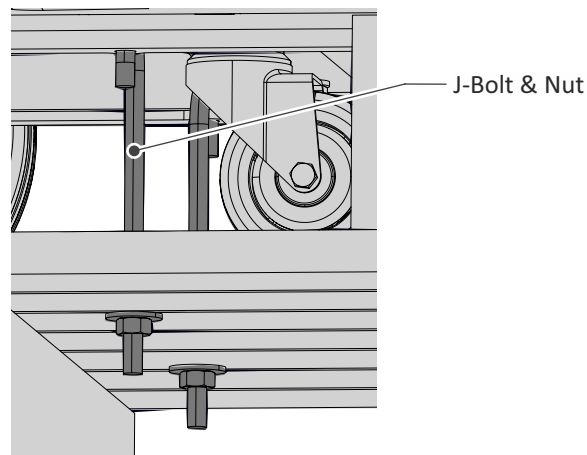
- ➔ Remove the packing crates from the sides and top.
- ➔ Remove the box containing the brush.
- ➔ Remove J-Bolts from the chassis of the machine (2 nos).
- ➔ Cut retaining straps at the front and rear.
- ➔ The main power cord is wound and strapped to pallet, ensure that the straps are removed.
- ➔ Carefully lift the machine from the pallet and place it on the floor.
- ➔ Remove the squeegee from the pallet.
- ➔ Check machine and accessories against the order invoice.



(Packed Condition)



(Unpacked Condition)



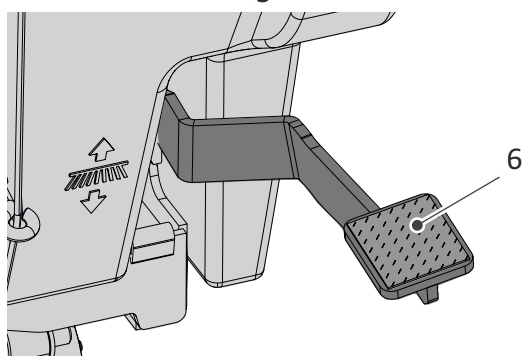
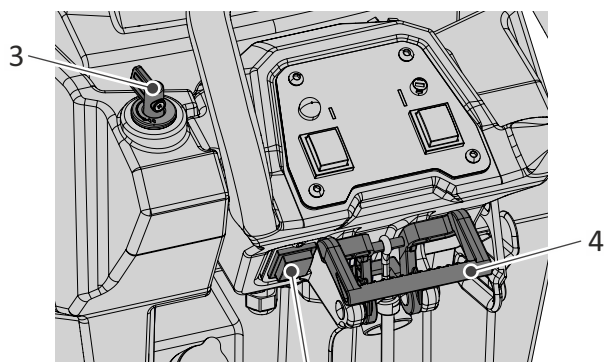
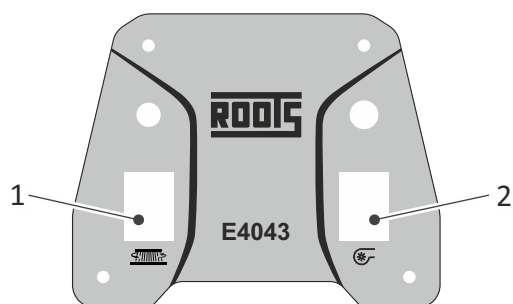
NOTE

- ☞ Care should be taken when removing the packing crate as to not to damage the machine.
- ☞ Ensure that sufficient man power is used to lift the machine. (Approximate weight of the machine is 120 kg.)
- ☞ Owner's personnel are not allowed to unpack the machine.

NOTE

- ☞ Before unpacking, carefully check the packaging for signs of damage. Report to authorized Roots Multiclean Ltd personnel immediately.
- ☞ Upon unpacking, check for missing items or damaged parts. Report to authorized Roots Multiclean Ltd personnel immediately.

CONTROLS



1. Brush Motor Switch
2. Suction Turbine Switch
3. Fresh Water Flow Control Knob
4. Squeegee Raise/Lower Handle
5. Brush Release Switch
6. Brush Head Raise/Lower Pedal

Controls - In detail:

1. Brush Motor On/Off Switch:

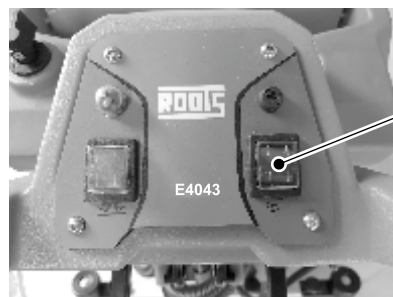


Brush Motor Switch

To switch ON the brush motor push the switch downwards, the brush motor will start to run.

To switch OFF the brush motor push the switch upwards, the brush motor will stop.

2. Suction Turbine On/Off Switch:

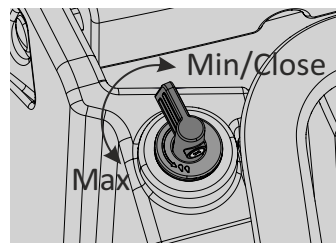


Suction Turbine Switch

To switch ON the suction turbine push the switch downwards, the suction turbine will start to run.

To switch OFF the suction turbine push the switch upwards, the suction turbine will stop immediately.

3. Fresh Water Flow Control Knob:



Min./Close

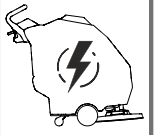
Max.



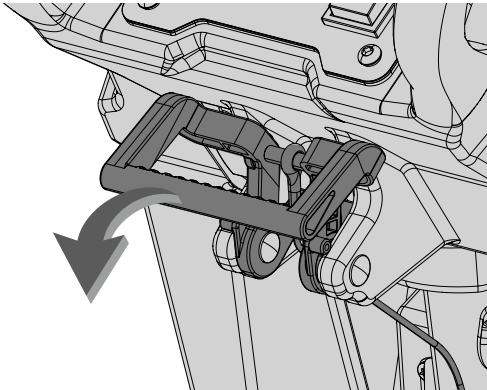
The fresh water flow control knob is located on the left hand side of the machine near the handle. This knob is used to control the flow of fresh water from the tank to the brush head.

Turn the knob clockwise to close or reduce the water flow.

Turn the knob anti-clockwise to increase the water flow.



4. Squeegee Raise/Lower Handle:

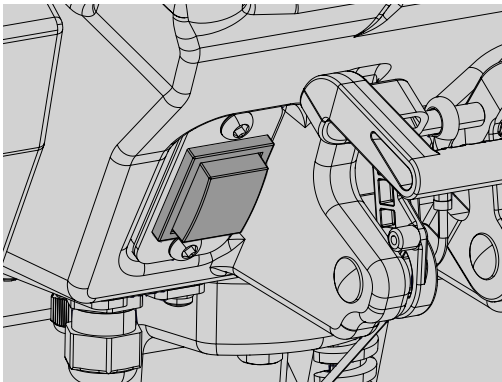


The squeegee raise/lower handle is located at the rear of the machine below the control panel. This handle is used to raise or lower the squeegee depending upon the operation.

To lower the squeegee - Pull the handle downwards from its locked position to set the squeegee in its operating position.

To raise the squeegee - Push the handle upwards to store and secure it from its operating position.

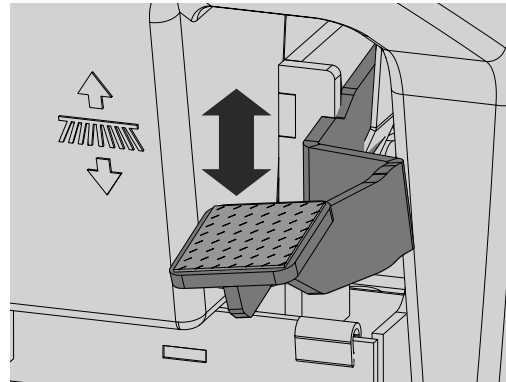
5. Brush Release Switch:



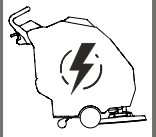
The brush release switch is located at the rear of the machine in the control unit to left hand side of the machine.

The brush release switch is used to remove the disc brush from the machine.

6. Brush Head Raise/Lower Pedal:



The brush head raise/lower pedal is located at the rear of the machine below the control panel, right hand side of the machine. This pedal is used to raise or lower the brush head depending upon the operation.



MACHINE OPERATION

It is the operator's responsibility to be knowledgeable of all potential operating hazards and to take every reasonable precaution to ensure safety of oneself, others, animals, and property.

This section of the Operator's Manual is designed to familiarize, instruct, and educate safe and proper machine use to the operator. The operator must be familiar with the machine operation and all associated safety practices before operating. Proper operation of the machine, as detailed in this manual, will help ensure years of safe and satisfactory use of the machine. **READ, UNDERSTAND, and FOLLOW** the safety messages. Serious injury or death may occur unless care is taken to follow the warnings and instructions stated in the safety messages. Always use good common sense to avoid hazards.



WARNING

Do not operate a damaged or malfunctioning machine. Risk of equipment failure or cause of injury or death or damage to property.

Operator Requirements:

Only qualified people are allowed to operate the machine. A qualified operator has to read and understand the owner's manual and should comply with its procedures. If any part of the operation and safe use of this equipment is not completely understood, consult an authorized dealer for a complete explanation.

If the operator cannot read the manual for himself or does not completely understand the operation of the equipment, it is the responsibility of the supervisor to read and explain the manual, safety practices, and operating instructions to the operator.

Employer Responsibilities:

- Train the employee to operate the machine in a safe way.
- Permit only qualified personnel to operate and service the machine.
- Instruct all operators to maintain the shields and guards in its proper working condition at all times.
- Ensure that the operators use approved Personal Protective Equipment (PPE) at all times or whenever required.
- Forbid the operators to carry additional people on the truck or the machine.
- Ensure that nobody including the operator modifies or alters the machine or any of its function, doing so may cause fatal injury or death or it may damage the machine itself.
- Ensure that children do not operate the machine.

Before Starting the Machine:

Before operating the machine, ensure that the equipment is working properly and that you are prepared for cleaning operations by checking the Pre-Operative Checklist and testing the machine functions.

Machine Operation

This section describes on how to use the machine under the following sections:

- ➔ PRE-SCRUBBING CHECKPOINTS
- ➔ TRANSPORTING THE MACHINE
- ➔ FILLING OF FRESH WATER
- ➔ WATER LEVEL SETTING
- ➔ RAISING/LOWERING OF BRUSH HEAD
- ➔ RAISING/LOWERING OF SQUEEGEE
- ➔ INSTALLATION/REMOVAL OF DISC BRUSH
- ➔ INSTALLATION/REMOVAL OF SQUEEGEE
- ➔ BRUSH & PAD
- ➔ SCRUBBING PROCEDURE
- ➔ END OF SCRUBBING
- ➔ DRAINING OF DIRTY WATER TANK
- ➔ POST-SCRUBBING CHECKPOINTS

PRE-SCRUBBING CHECKPOINTS:

- Check for any exterior damage to the machine.
- Check the squeegee for damage.
- Check the brush for damage.
- Check for leaks in the tanks.
- Check if the area to be cleaned is free from any hazardous chemical or other substance.
- Check whether the dirty water tank is empty and clean.
- Check the float and limit switch for free movement.
- Check if water reaches the floor.
- Check whether the right brushes are equipped for the floor type.

Worksite:

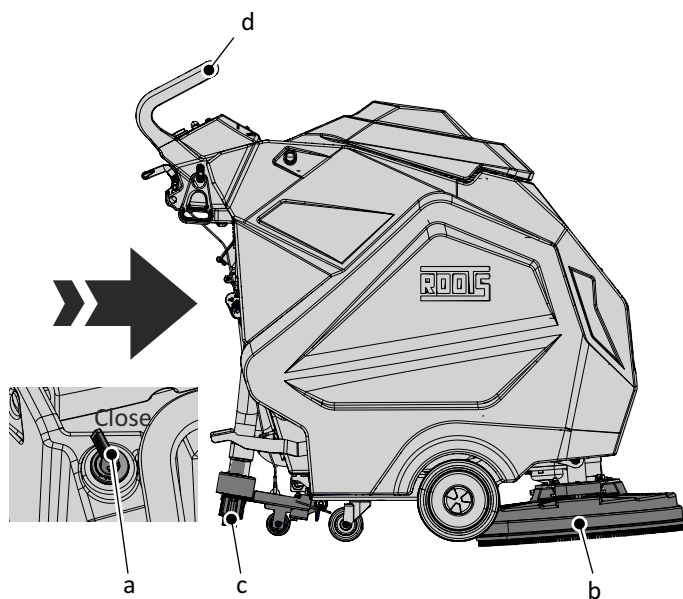
- Ensure that there are no flammable materials in the vicinity of the machine during the scrubbing operation.

Start-Up Test:

By identifying any problem before traveling to the worksite, you'll save unnecessary travel time and will be able to make repairs more easily with the proper tools.

MACHINE OPERATION

TRANSPORTING THE MACHINE:



To move or transport the machine, close water flow completely (a), raise brush head (b) and squeegee (c). Push machine forwards. The machine is equipped with large front wheels and swivel castor wheels at the rear to enable easy manoeuvrability. Use the handle to push the machine (d).

Note: Ensure that the brush head is locked in position before transporting the machine.

→ Care should be taken not to bump the machine onto the walls or other objects, this will cause damage to the machine.

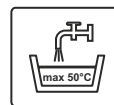
WARNING

Do not push or pull the machine at a fast pace if it is full of water, risk of tipping and damaging the machine or risk of running away and causing damage to property or persons.

CAUTION

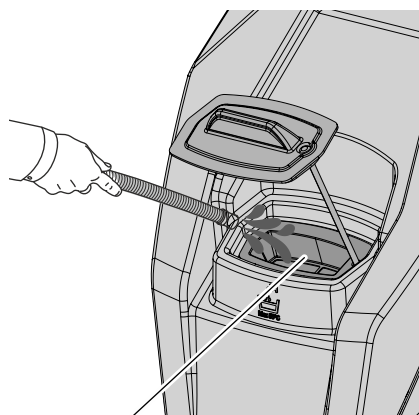
Hold the handles tightly when going down or up a slope. Use industrial gloves for better grip (if required).

FILLING OF FRESH WATER:

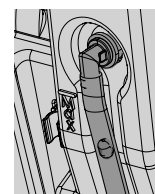
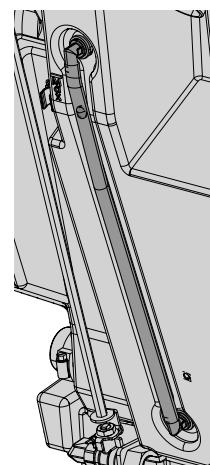


Fill only clean fresh water with Max. 50°C in the fresh water tank. **DO NOT** fill dirty or contaminated water.

- Ensure that the flow control knob is in fully closed position.
- Open the cover of the fresh water fill port. Do not remove the filter.
- Fill in fresh water at a level of 40 liters. Do not fill water beyond the “MAX” mark located near the fresh water level indicator.
- If required low foaming cleaning detergents can also be added.



Fresh Water Fill Port with Filter



- Close the cover of the fresh water fill port.

WARNING

- *Do not remove the filter while filling fresh water, risk of contaminating the water with foreign object.*
- *Do not mix dirty water.*
- *Do not mix acids or heavy industrial de-greasers.*

Recommended Cleaning Detergents:

Ensure that only low-foaming, non corrosive detergents are used.

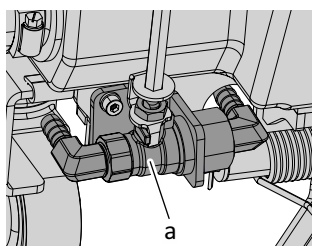
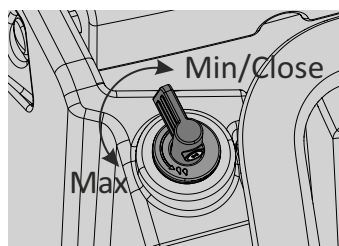
*Example: **RootsScrub - Low Foam***

Refer the package instructions for dosage levels.



MACHINE OPERATION

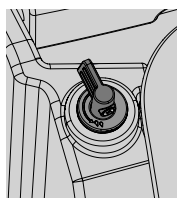
WATER LEVEL SETTING:



The fresh water flow control knob is located on the left hand side of the machine near the handle. This knob is used to control the flow of fresh water from the tank to the brush head via a ball valve assembly (a).

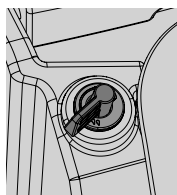
Knob position clockwise:

Turn the knob clockwise to reduce or close the water flow.



Knob position anti-clockwise:

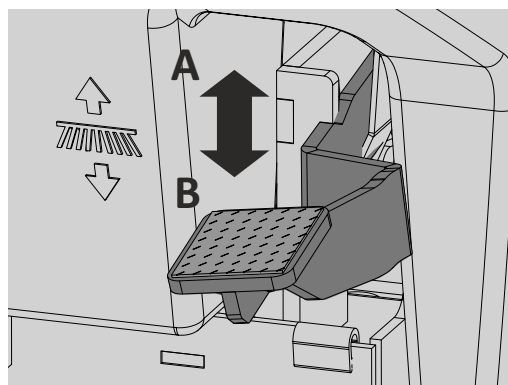
Turn the knob anti-clockwise to increase the water flow.



IMPORTANT ATTENTION

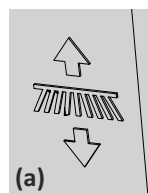
Ensure that the fresh water control knob is in the close position when not in use, there is a risk of water wastage/leak.

RAISING/LOWERING OF BRUSH HEAD:



To lower the brush head - Push the pedal downwards and right from its locked position to lower the brush head to its operating position.

To raise the brush head - Push the pedal slightly to its right to release it from the locked position. The pedal raises upwards and locks into position ensuring that the brush head is raised and secured.



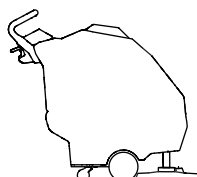
A marking near the pedal (a) is used to help the operator to identify the pedal positions.



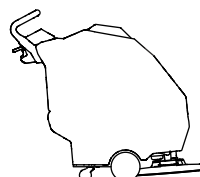
ATTENTION!

Care should be taken when lowering the brush head as it lowers itself due to gravity and self weight of the brush head assembly.

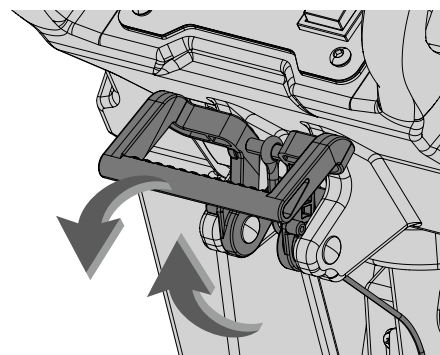
Pedal Position A:



Pedal Position B:



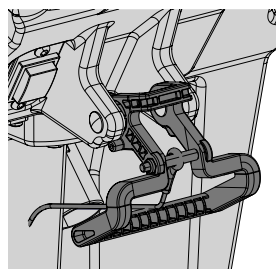
RAISING/LOWERING OF SQUEEGEE:



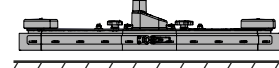
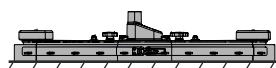
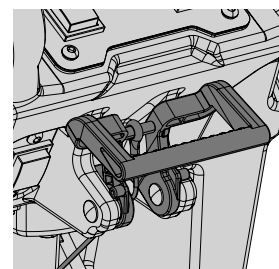
To lower the squeegee - Pull the handle downwards (A) from its locked position to set the squeegee in its operating position.

To raise the squeegee - Push the handle upwards (B) to store and secure it from its operating position.

Handle Position A:



Handle Position B:

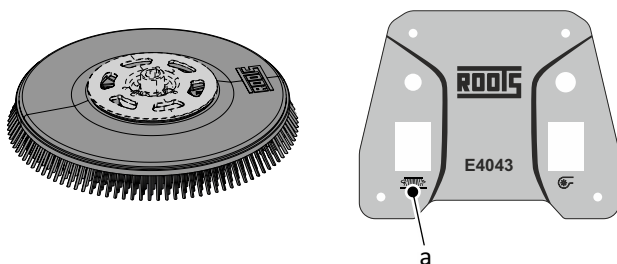
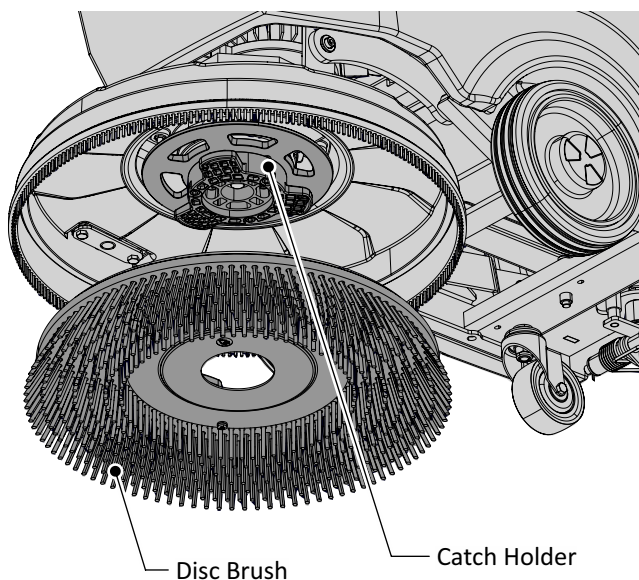
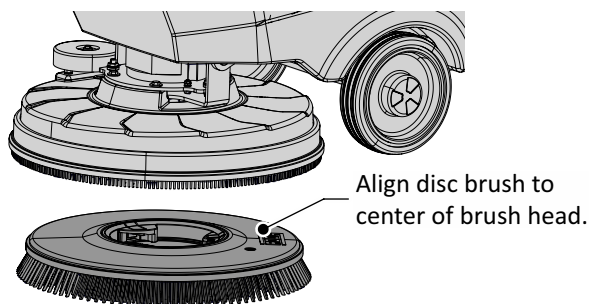


MACHINE OPERATION

INSTALLATION/REMOVAL OF DISC BRUSH:

Installation of disc brush:

- Ensure that the tanks are empty.
- Lift the squeegee.
- Place the disc brush in front of the machine.
- Ensure that the brush head is raised.
- Move the machine forward till the brush head aligns with the center of the brush.
- Lower the brush head by pressing the pedal.
- Plug the power cord to mains, switch On mains.
- Press the brush motor switch (a) till the brush locks itself to the brush head catch.

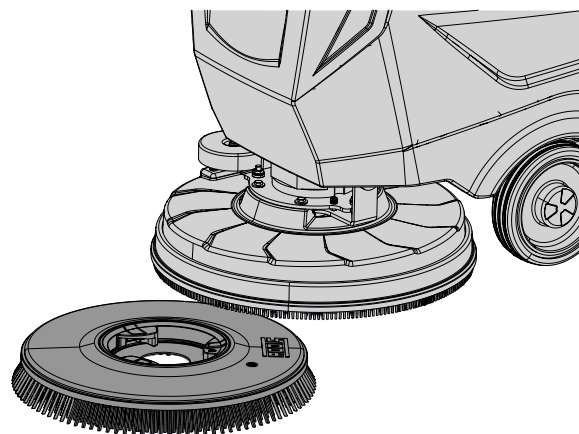
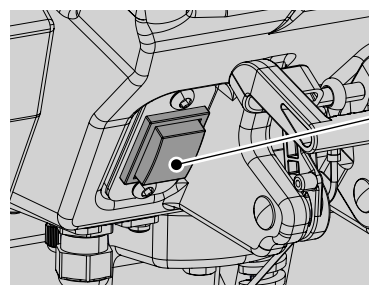


NOTE

The disc brush must snap in immediately. A rattling noise indicates that the brush head is not centered properly. Turn Off brush motor switch, correct the position and try again till the brush locks itself in the catch.

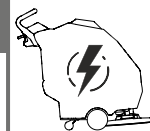
Removal of disc brush:

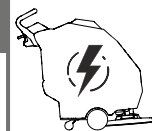
- Ensure that the tanks are empty.
- Lift the squeegee.
- Lift the brush head.
- Press the brush release switch once.
- Move the machine backwards.
- Brush is now lying in front of the machine.



WARNING

Do not operate the brush release switch when the brush motor switch is in On position.

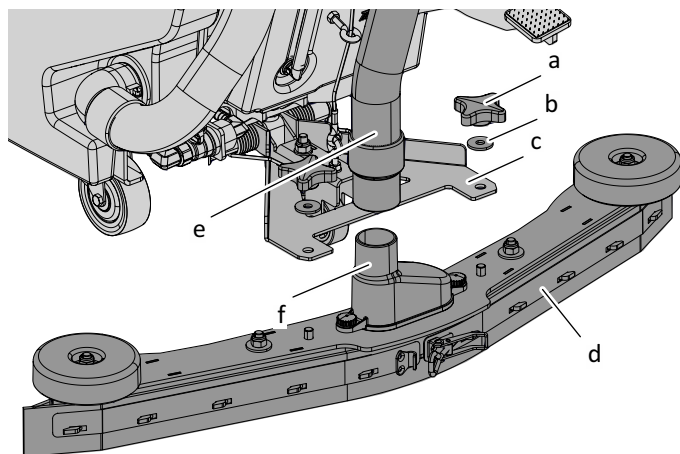




INSTALLATION/REMOVAL OF SQUEEGEE:

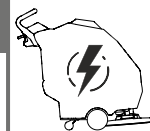
Installation of Straight Squeegee/V-Squeegee:

- Ensure that the tanks are empty.
- Lift the squeegee raise/lower handle.
- Loosen the knobs (a) on the squeegee (d) and remove them.
- Remove the washers (b).
- Slide the squeegee under the squeegee holder (c).
- Place the washers, secure the squeegee by tightening the knobs.
- Connect the suction hose (e) to the squeegee suction port (f).



Removal of Straight Squeegee/V-Squeegee:

- Ensure that the tanks are empty.
- Lift the squeegee raise/lower handle.
- Loosen the knobs (a) on the squeegee (d) and remove them.
- Remove the washers (b).
- Remove the squeegee from the holder (c).
- Disconnect suction hose (e).



BRUSH & PAD:

Brush Application:

Brush	Granite	Vinyl	Terrazzo	Marble	Concrete	Ceramic	Epoxy	Polished Marble
Poly								
Nylon								
Silicone Carbide								

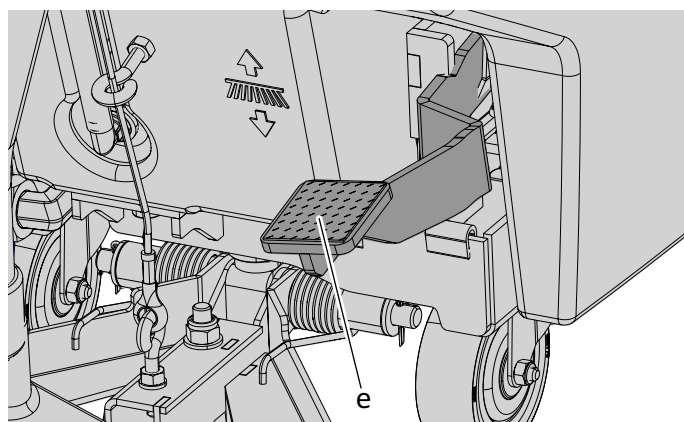
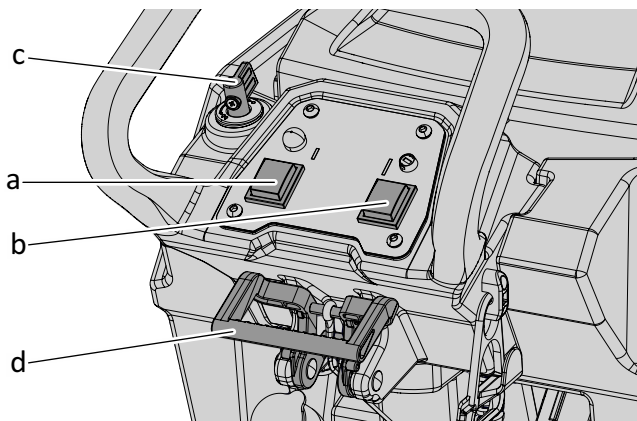
Pad Application:

	Pad Colour							
Process	Black	Brown	Green	Blue	Red	Beige	White	Natural
Stripping								
Recoat Scrub								
Routine Cleaning:								
- Heavy Soil Load								
- Medium Soil Load								
- Light/Normal Soil Load								
Spray Buffing								
Burnishing								

MACHINE OPERATION

SCRUBBING PROCEDURE

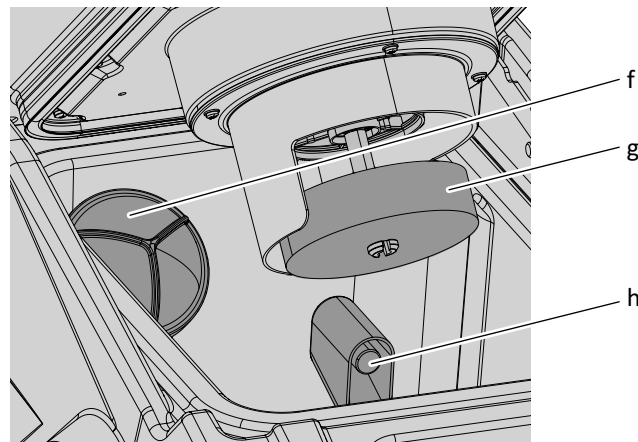
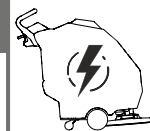
Scrubbing:



- ➔ Ensure that fresh water tank is filled with clean water.
- ➔ Ensure that the dirty water tank is empty.
- ➔ Install the recommended brush.
- ➔ Move machine to work area.
- ➔ Plug power cord into mains with a rating of 230V/50Hz only.
- ➔ Switch On brush motor switch (a).
- ➔ Switch On suction turbine switch (b)
- ➔ Set water flow using the water flow control knob (c).
- ➔ Lower the squeegee (d).
- ➔ Lower the brush head (e).
- ➔ Move machine forward to start scrubbing.

Attention!

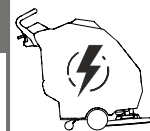
After lowering the brush move the machine immediately; otherwise the brush might leave traces on the floor. Lift the squeegee during reverse travel. When passing over dormers with a height of more than 0.7° in = 10 mm, the brush head must be turned off and the brush must be lifted up.



- ➔ The dirty water sucked by the squeegee will be collected in the dirty water tank via the suction hose and flow diverter (f).
- ➔ The suction turbine will automatically switch Off when the dirty water tank is full as the mechanical float (g)/electrical float (h) system is activated.
- ➔ Stop scrubbing operations.
- ➔ Drain dirty water tank completely and then resume scrubbing operations.

Useful Tips for Scrubbing:

- ✎ It is dangerous to pass over the power supply cable while the brush is rotating.
- ✎ Cleaning of floor areas starts from the outlet socket and is effected stripe by stripe.
- ✎ In case of unoccupied areas it will be useful to clean at first the border areas, passing with the machine along those areas in counterclockwise sense.
- ✎ Cleaning of the remaining areas then should be effected stripe by stripe, starting from the outlet socket.
- ✎ Partially occupied areas should be subdivided into single working areas, within reach of the power supply cable.
- ✎ Within a short time, the operator will learn how to avoid unnecessary inconveniences caused by the cable.



End of Scrubbing:

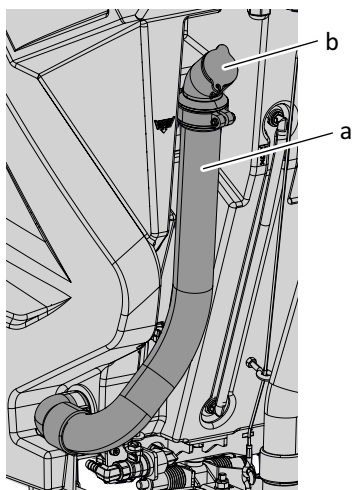
- Raise brush head (e).
- Close water flow completely (c).
- Switch Off brush motor (a).
- Switch Off suction turbine (b).
- Raise squeegee completely (d).
- Switch Off mains.
- Unplug power cord.
- Drain dirty water tank completely in an approved waste water disposal area.



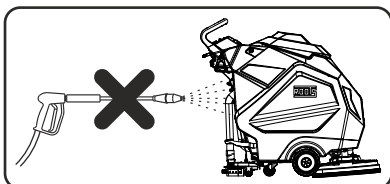
WARNING:

DO NOT drain the dirty water into the environment.
There is a risk of contaminating the environment.

DRAINING DIRTY WATER TANK:



- Move machine to waste water disposal area.
- Lower the dirty water tank drain hose (a) to the floor drain.
- Slowly open the drain hose cap (b) to let the dirty water flow out.
- Wait till the dirty water tank is completely empty.
- Clean the dirty water tank with clean fresh water.
- Close the drain hose cap and secure the drain hose to the machine.



WARNING:

- **Do not clean the machine by means of a vapor jet or a high pressure cleaning equipment. Clean the brush head with a water hose (pressure: 3 to 4 bar max.) and from the bottom only.**
- **Do not direct the water jet into any opening, slots, on electronic modules, control panels or sealing.**
- **Do not use harsh chemicals to clean the machine.**

POST-SCRUBBING CHECKPOINTS:

- Check the tank lid seals for damage or wear and tear.
- Clean the float.
- Check the condition of the brushes. Remove any string, rope or other debris wrapped around them.
- Check the vacuum hose for block/damage.
- Check if both the tanks are completely clean.
- Check the machine exteriors for any damages or dirt.
- Check if the squeegee knobs are tight.



MAINTENANCE WORK

Compliance with our recommendations concerning maintenance work will give you the certitude of always having a machine at your disposal, which is ready to work and in good operating condition.

Please contact your local Roots Multiclean Ltd. dealer. The people there will be glad to perform that work for you. Their well trained personnel and genuine Roots spare parts are at your disposal.

- In case of any inquiry or order for spare parts, please always quote the machine's serial number mentioned on the nameplate.
- The name plate is fixed in the rear side of the machine.
- When cleaning or servicing the machine, and when replacing any part, shut off the machine and on principle disconnect the power plug from the power supply.
- For reasons of safety during cleaning and/or maintenance work in or on the tank, the tank lid - when lifted - must be secured so as to prevent accidental closing or tilting down.
- The machine may be taken into operation only if all guarding devices are fitted and in protective position. As far as possible, cleaning should not be done by hand, but using appropriate tools or equipment.
- Maintenance and repair work may be carried out only by means of suitable tools and by the people trained in the factory. For reasons of safety, only genuine Roots spare parts may be used.



WARNING

- ➔ *Maintenance and/or repair operations must be done by skilled and authorized personnel; all operations on electrical devices are to be performed by specialized personnel only.*
- ➔ *Read this manual thoroughly before performing any repair or maintenance operations.*
- ➔ *For repair and/or maintenance of high reach areas of the machine, use a suitable work lift or working platforms.*
- ➔ *Use genuine Roots spare parts ONLY which are specifically designed for the machine.*
- ➔ *USE suitable PPE at all times when working or servicing the machine.*



IMPORTANT!

- ➔ **ALWAYS SWITCH OFF AND REMOVE KEY BEFORE PERFORMING ANY MAINTENANCE OR REPAIR WORK.**
- ➔ **ALWAYS ATTACH A 'DO NOT START' OR SIMILAR WARNING SIGN TO THE KEY SWITCH OR A CONTROL BEFORE CLEANING OR SERVICING THE MACHINE.**



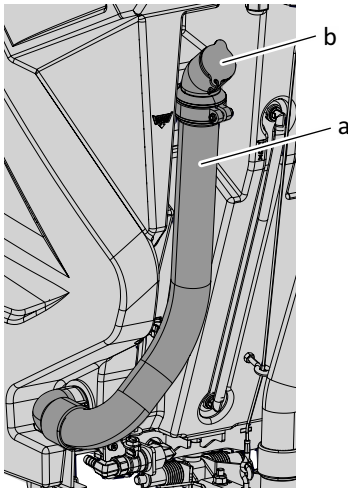
MAINTENANCE TOPICS

This section describes the maintenance of the machine under the following topics:

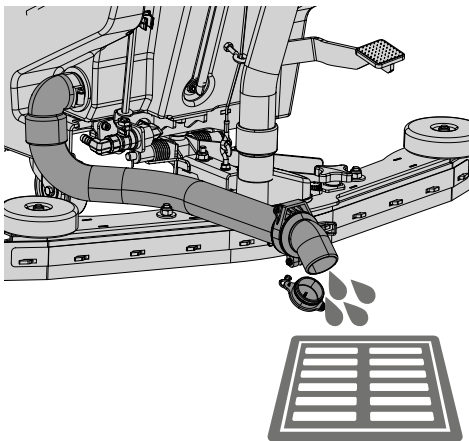
- ➔ DRAINING THE DIRTY WATER TANK
- ➔ DRAINING THE FRESH WATER TANK
- ➔ CLEANING THE DIRTY WATER TANK
- ➔ CLEANING THE FLOAT
- ➔ CLEANING THE FRESH WATER TANK
- ➔ CLEANING THE FRESH WATER FILL PORT FILTER
- ➔ CLEANING THE SQUEEGEE
- ➔ CLEANING THE SQUEEGEE LIPS
- ➔ CLEANING THE DISC BRUSHES
- ➔ CLEANING THE CATCH HOLDER
- ➔ CLEANING THE MACHINE
- ➔ SEALS
- ➔ PUSHING & TRANSPORTING THE MACHINE
- ➔ ELECTRICAL MAINTENANCE
- ➔ STORING THE MACHINE
- ➔ FREEZE PROTECTION
- ➔ MAINTENANCE SCHEDULE CHART



DRAINING THE DIRTY WATER TANK



- Move machine to waste water disposal area.
- Lower the dirty water tank drain hose (a) to the floor drain.
- Slowly open the drain hose cap (b) to let the dirty water flow out.
- Wait till the dirty water tank is completely empty.
- Close the drain hose cap and secure the drain hose to the machine.



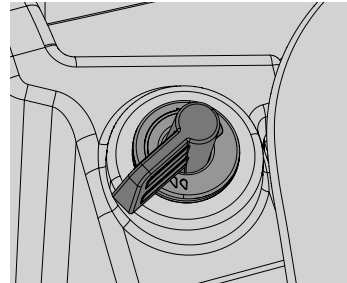
Open cap to drain

WARNING



DO NOT DRAIN THE DIRTY WATER INTO THE ENVIRONMENT. THERE IS A RISK OF CONTAMINATING THE ENVIRONMENT.

DRAINING THE FRESH WATER TANK

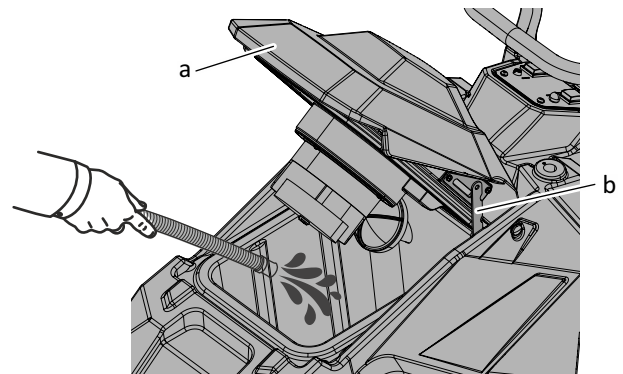


- Move machine to waste water disposal area.
- Open the fresh water flow control knob to the maximum. wait till the water is completely drained.
- Close the flow control knob.

CLEANING THE DIRTY WATER TANK



- Move the machine to the designated cleaning area.
- Open the lid of the dirty water tank (a).
- Secure the lid by engaging the stopper (b).
- Lower the dirty water tank drain hose near the drain, open the cap of the drain hose.
- Use fresh water at normal pressure and clean the inside of the dirty water tank completely. Use mild detergent if required.
- Clean the dirty water tank until it is free from any debris or foreign matter.
- Keep the lid open for a few minutes for the tank to dry.



Caution:

Ensure that water does not enter the suction turbine.

WARNING



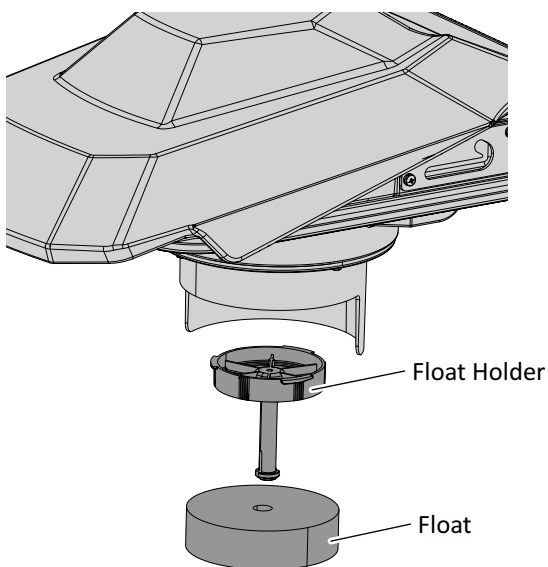
DO NOT DRAIN THE DIRTY WATER INTO THE ENVIRONMENT. THERE IS A RISK OF CONTAMINATING THE ENVIRONMENT.



CLEANING THE FLOAT



- Move the machine to the designated cleaning area.
- Open the lid of the dirty water tank, secure it with the stopper.
- Lower the dirty water drain hose near the drain, open the cap of the dirty water tank drain hose.
- Remove the float from the yellow colour float holder.
- Clean the float with clean running water.
- Twist to unlock and remove the float holder. Remove any debris from the float holder, clean the float holder with clean water. Use mild detergent if required. Use a brush to remove any salt or dirt deposit on the mesh of the float holder.
- Drain all water from the dirty water tank.
- Clean the dirty water tank.
- Close the dirty water tank drain hose cap and secure it in its holder.
- Disengage the safety stopper by pulling the lid upwards and sliding the stopper forward. Close the lid.



WARNING

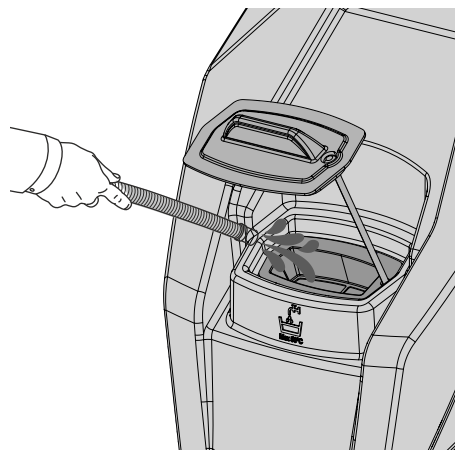


DO NOT DRAIN THE DIRTY WATER INTO THE ENVIRONMENT. THERE IS A RISK OF CONTAMINATING THE ENVIRONMENT.

CLEANING THE FRESH WATER TANK



- Move the machine to the designated cleaning area.
- Drain any remaining water.
- Open the fresh water fill port cap.
- Use fresh water at normal pressure and clean the inside of the fresh water tank completely. Use mild detergent if required.
- Drain all water.



WARNING

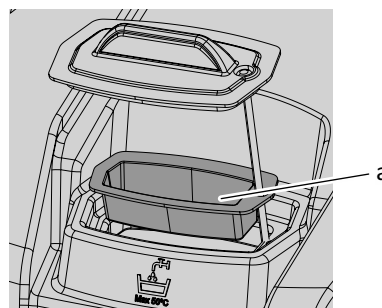


DO NOT DRAIN THE DIRTY WATER INTO THE ENVIRONMENT. THERE IS A RISK OF CONTAMINATING THE ENVIRONMENT.

CLEANING THE FRESH WATER FILL PORT FILTER



- Open the fresh water fill port cover.
- Remove the filter (a) by pulling it upwards.
- Remove any debris from the filter.
- Clean the filter under clean running water. Use a brush to clean any salt deposits. Use mild detergent if required.

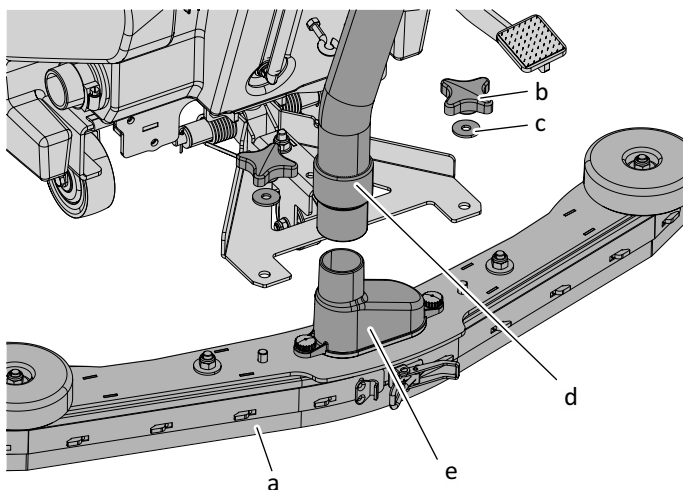




CLEANING THE SQUEEGEE



- Move the machine to the designated cleaning area.
- Remove the squeegee (a) from the machine by loosening the squeegee holder knobs (b) (2 nos) and washers (c) (2 nos).
- Detach the suction hose (d) from the squeegee.
- Remove any debris, thread, rope etc from the squeegee.
- Clean the squeegee under running water.
- Remove the squeegee suction port (e) by removing the suction port holder knobs (2 nos).
- Remove any debris, thread, rope etc from the suction port.
- Clean the suction port under running water. Use mild detergent if required.



The suction port is in a bright yellow colour for easy identification of maintenance components which have to be removed and cleaned.

WARNING

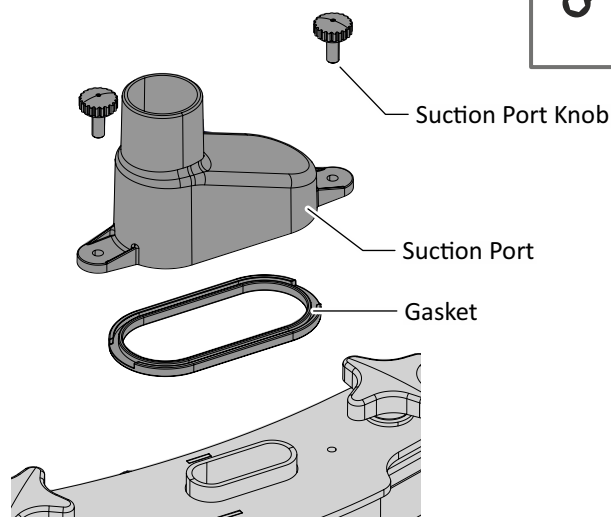


DO NOT CLEAN THE SQUEEGEE AND ITS COMPONENTS INTO THE ENVIRONMENT. THERE IS A RISK OF CONTAMINATING THE ENVIRONMENT.

WARNING



DO NOT USE HARSH CHEMICALS AND ACIDS TO CLEAN.



After removal of the suction port, clean the retaining gasket under clean running water. Do not use harsh acids or chemicals.

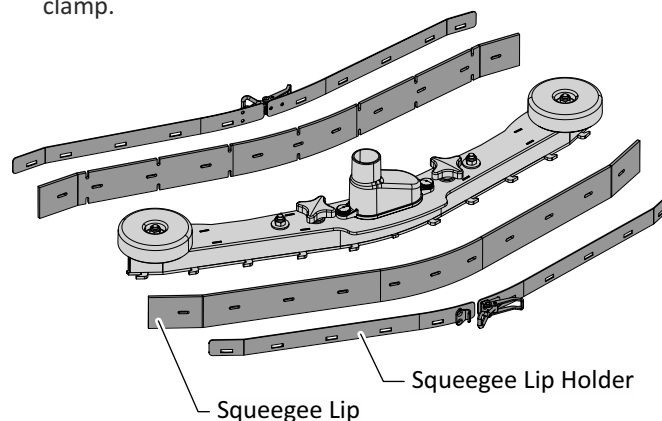


NOTE: ENSURE THAT THE SUCTION PORT GASKET IS PLACED PROPERLY TO PREVENT VACUUM LEAK.

CLEANING THE SQUEEGEE LIPS



- Remove the squeegee lip holder using the toggle clamp. Pull the toggle latch forward to loosen the clamp.
- Remove both front and back squeegee lip holders.
- Remove any debris, thread, etc.
- Remove the squeegee lips and clean them under clean running water. Use mild detergent.
- Assemble the lips back after cleaning.
- Secure the lips using the squeegee lip holder via the toggle clamp.

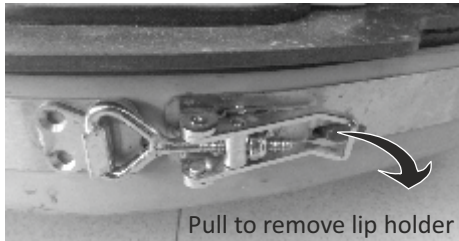


MAINTENANCE

WARNING



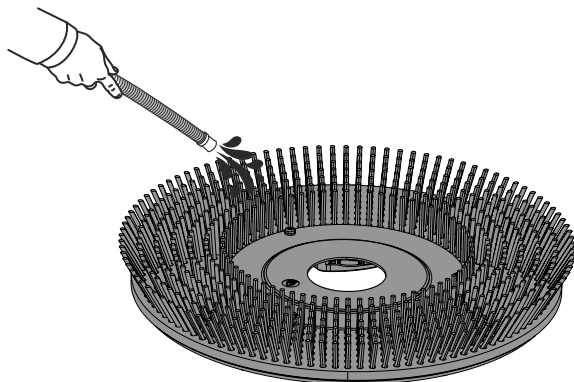
DO NOT USE HARSH CHEMICALS AND ACIDS TO CLEAN.



CLEANING THE DISC BRUSHES



- Remove the disc brush from the brush head by pressing the brush release switch once.
- Remove any thread, rope, twine and other debris from the brush.
- Clean the brush under clean running water.
- Clean the catch holder grooves using a small brush.



WARNING

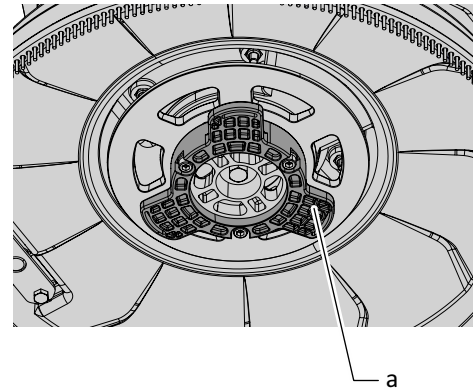


DO NOT USE HARSH CHEMICALS AND ACIDS TO CLEAN.
DO NOT USE HIGH PRESSURE JETS TO CLEAN THE BRUSH.

CLEANING THE CATCH HOLDER



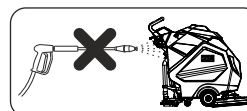
- Remove any thread, rope, twine and other debris from the catch holders.
- Clean the catch holder (a) using a damp cloth.



CLEANING THE MACHINE



- Use a damp sponge with mild detergent to clean the exteriors of the machine.
- Ensure that water does not enter any electrical part.
- DO NOT use high pressure jet or steam cleaning equipments to clean the machine.



DO NOT CLEAN THE MACHINE BY MEANS OF VAPOUR JET OR HIGH PRESSURE CLEANING EQUIPMENT.



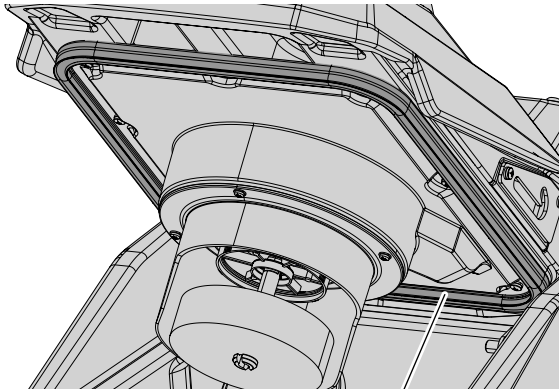
WARNING:
Disconnect power cord.



CLEANING THE SEAL



- Raise the lid and secure it with the stopper.
- Clean the seal with a soft cloth to remove dirty water or debris.
- Close the lid when the seal is dried.



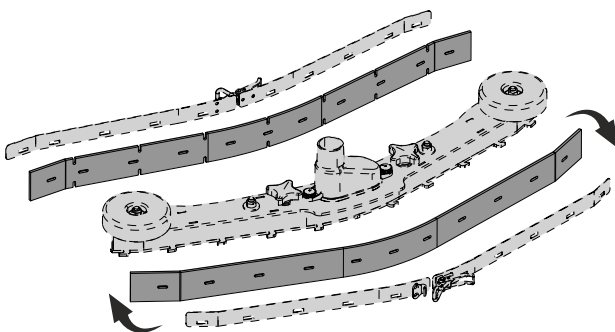
Seal



Do not use harsh chemicals and acids.

CHANGING THE SQUEEGEE LIPS

- Remove the squeegee lip holder using the toggle clamp. Pull the toggle latch forward to loosen the clamp.
- Remove both front and back squeegee lip holders.
- Remove the front and rear squeegee lips.
- If the squeegee lips are in good condition invert them to use the other side.
- If the squeegee lips are completely worn out, replace the same with new ones.
- Secure the lips using the squeegee lip holder via the toggle clamp.



TRANSPORTING THE MACHINE

When transporting the machine by use of a truck, carefully follow the loading and tie-down procedure:

- Raise the brush head and remove the squeegee assembly.
- Use a ramp that can support the machine weight and operator and carefully load the machine. Do not operate the machine on the ramp.
- Once loaded, position the front of the machine up against the front of the truck.
- Place a block behind each wheel.
- Use ti-down straps to secure the machine.

NOTE: When transporting the machine in an open truck, secure the dirty water tank lid.

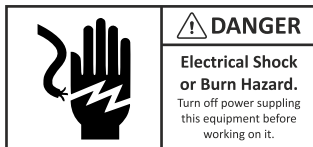
WARNING: Do not use the control handle area to tie-down the machine, damage may occur.



MAINTENANCE



ELECTRICAL MAINTENANCE

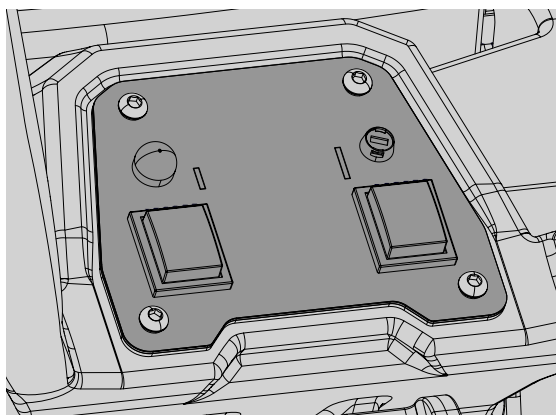


NOTE: Before leaving or servicing the machine, stop on a level surface, turn off mains and unplug power cord.



IMPORTANT: All electrical repairs should be done by authorized Roots Multiclean Ltd. service engineer *ONLY*.

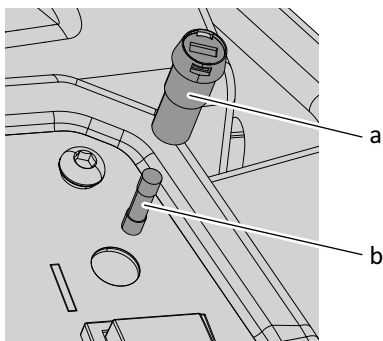
The electrical module is located below the control panel. To access the components remove the control panel.



Fuse:

A fuse is used to protect the suction turbine in case of a failure. To change the fuse:

- Switch off machine, unplug power cord.
- Unscrew the fuse holder cap (a) with a screwdriver.
- Remove the blown fuse (b) from the fuse holder.
- Insert a new fuse of the same rating into the fuse holder.
- Place the fuse holder cap back and tighten it.
- Activate the suction turbine to check its function.



IMPORTANT:

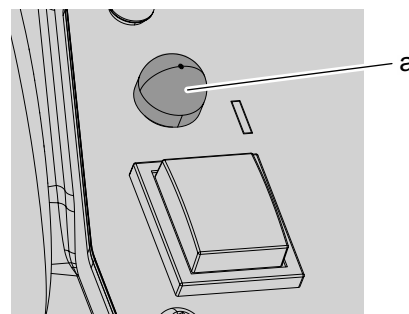
If there should be repeated cases of failure, look for reason.

Fuse Details:

Fuse - F1
Rating - 4.0A
Used for - Suction Turbine

Circuit Breaker:

The circuit breaker is used to protect the brush motor in case of an overload. To reset the circuit breaker, press the red button (a) on the control panel of the machine. Wait for 30 seconds before a reset.

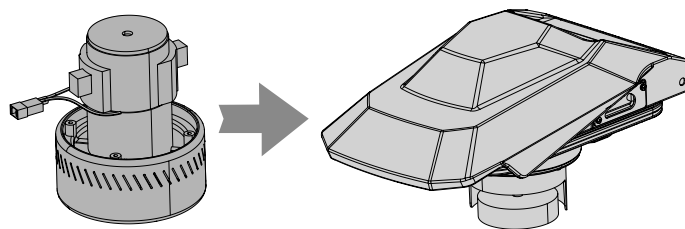


NOTE

If there should be repeated cases of failure, look for reason.

Suction Turbine:

The suction turbine is located within the lid assembly. In case of any fault in the suction turbine call authorized Roots Multiclean Ltd personnel to perform maintenance tasks.



WARNING

Only RMCL authorized and RMCL skilled technicians are allowed to perform electrical maintenance tasks on the suction turbine.



STORING THE MACHINE

The following steps should be taken when storing the machine for an extended period of time.

- Disconnect power cord from mains.
- Brush head and squeegee should be raised and secured.
- Thoroughly drain fresh water tank, dirty water tank and all hoses.
- Store the machine in a dry area.
- Open the dirty water tank lid to promote air circulation.
- If storing the machine in freezing temperatures refer “FREEZE PROTECTION” section.

NOTE: Do not expose the machine to rain. Store indoors only.



NOTE: To prevent potential damage to the machine store the machine in a insect and rodent free environment.



FREEZE PROTECTION

Storing machine in freezing temperatures.

- Completely drain fresh water tank and dirty water tank.
- Pour 3 liters of propylene glycol based antifreeze into the fresh water tank.
- Open the flow control knob to start the flow of antifreeze through the tubes and nozzle.
- Close the flow control knob when the antifreeze is visible on the floor.
- After storing the machine in freezing temperatures, drain any remaining antifreeze from the tank.

MAINTENANCE



MAINTENANCE CHART

The below table indicates the Person Responsible for each procedure:

O = Operator

T = Trained Personnel

Interval	Person Resp.	Description	Procedure
Daily	O	Pad(s)	Check, flip or replace
	O	Brush	Check, clean
	O	Dirty water tank	Drain, rinse, clean float, float-holder filter
	O	Squeegee	Clean, check for damage and wear
	O	Brush head skirt	Check for damage and wear
	O	Fresh water fill port filter	Check for debris, clean
Weekly	O	Flow divertor	Check for debris, clean
	O	Squeegee assembly	Check, clean
50 Hours	O	Dirty water tank seal	Check for wear
	O	Squeegee lips	Check for deflection
	O	Squeegee lips	Check for wear, turn or replace
100 Hours	O	Power cord	Check for damage
	O	Hoses	Check for damage and wear
	O	Squeegee lips	Check for wear, turn or replace
	O	Brush	Check for tight fit
	O	Dirty water tank seal	Check for wear
200 Hours	O	Nozzle	Check nozzle for block, clean if required
	T	Squeegee	Check squeegee holder and castor roller, re-adjust if required
	O	Brush head skirt	Check for damage and wear
	O	Hoses	Check for damage and wear
	O	Squeegee lips	Check for wear, turn or replace
200 Hours	T	Suction turbine	Check carbon brushes, replace if required



TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
No power - nothing works	Faulty power switch	Contact Roots service
	Fuse blown	Rectify the cause & replace fuse
Brush motor does not work	Brush motor does not work	Reset circuit breaker
	Faulty brush motor or loose cable	Contact Roots service
Suction turbine does not work	Faulty suction turbine switch	Replace switch
	Suction turbine fuse blown	Replace the fuse
	Faulty suction turbine	Contact Roots service
	Carbon brushes worn	Contact Roots service
Insufficient water flow	Water level in tank low	Refill fresh water
	Flow setting level at stop	Set flow level to On
	Water line clogged	Remove and blow with compressed air
	Water valve clogged	Remove and clean
Poor water recovery	Dirty water tank is full	Empty dirty water tank
	Suction hose is clogged	Remove debris
	Squeegee is clogged	Remove debris
	Squeegee lip is worn	Rotate or replace lips
	Faulty vacuum hose	Contact Roots service
	Flow diverter is clogged	Clean flow diverter
	Tank gasket faulty	Contact Roots service
	Drain hose leak	Hook up drain hose and close
	Suction turbine faulty	Contact Roots service
Poor traction	Worn tyre	Replace tyre
	Heavy soap concentration	Clean tyres



DO'S

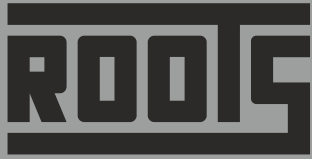
- ✓ Use only clean water to fill the fresh tank.
- ✓ Fill fresh water till the marked level only.
- ✓ Clean the fresh water filter after each cleaning cycle.
- ✓ Empty the dirty water at a specified draining area.
- ✓ Clean the dirty water tank and float filter after each cleaning cycle.
- ✓ Clean the suction float assembly if any dirt is noticed.
- ✓ Clean the squeegee after every cleaning cycle.
- ✓ Use only recommend cleaning solutions.
- ✓ Wipe the machine at the end of the day.
- ✓ Use only recommended brushes for the specified floors.
- ✓ Store machine in a covered dry place.

DON'TS

- × Do not modify the machine.
- × Do not fill water beyond 50°C.
- × Do not use harsh or acidic solutions.
- × Do not empty the dirty water in a habitable area.
- × Do not drive with the fresh water tank open.
- × Do not stand on the brush head and squeegee.
- × Do not park the machine on ramps or slopes.
- × DO NOT TAMPER WITH THE ELECTRICAL CIRCUITS.
- × Do not open the electrical module cover.
- × Do not clean the machine with a high pressure cleaning system.
- × Do not abuse the machine beyond its operable limit.
- × Do not mix brushes and use.
- × Do not store the machine by exposing it to the natural elements.
- × Do not use the machine to tow or push other equipments.

OPERATOR NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.



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