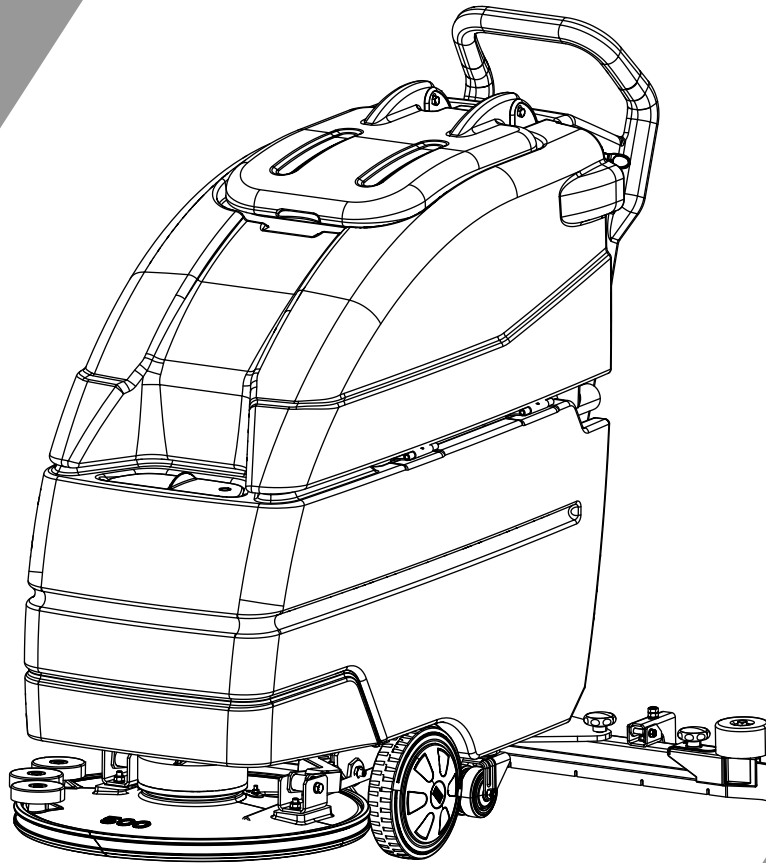


RootsScrub E Series

*Walk Behind Floor 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



	Table Of Contents & Important Note	3
	Introduction	4
	Technical Specifications	5
	Know Your Machine	6
	Safety Instructions	7
	Machine Operation	10
	Maintenance	16
	Troubleshooting	19
	Brush & Pad	20
	Do & Don'ts	21
	Operator Notes	22

OPERATOR'S 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/

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. - _____

Accessories - _____

Installation Date - _____

NOTE:

- ILLUSTRATIONS SHOWN IN THIS MANUAL ARE FOR REPRESENTATIVE PURPOSE ONLY.
- ROOTS reserves the right to change the product or contents of this manual without prior information.
- For Engine, Battery, Motors, Blowers or other OEM components related information kindly refer to their manufacturers manual supplied along with the machine for instructions regarding usage, maintenance and service.



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

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

P/N: 557350195-00, Rev: F, Date: 06/2022

Prepared by: KM-NPM TD Dept.



PREFACE

Dear Customer,

We are pleased with your having chosen the **RootsScrub E Series** 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.

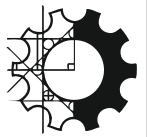
RMCL reserves the right to change the product or contents of this manual without prior information.

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.

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.



E 45 Series

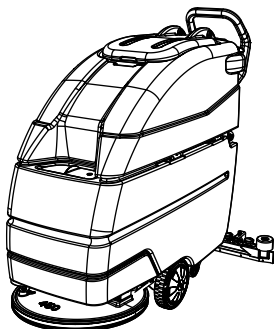
Description	Units	E4545	E4550
Scrubbing width	mm	450	500
Effective suction width	mm	750	850/750
Theoretical area coverage	m ² /h	1800	2000
Working speed, up to	km/h	4	4
Airflow rate	L/sec	28	28
Vacuum Pressure	mm of H ₂ O	1087	1087
Power supply	V/Hz	230/50	230/50
Total power	W	1400	1400
Brush motor	W	800	800
Vacuum motor power	W	400	400
No. of brushes	No.	1	1
Diameter of brush	mm	450	500
Brush speed	rpm	180	180
Brush load	kg	25	26
Fresh water tank	L	45	45
Dirty water tank	L	45	45
Through put, max	L/min	2.0 - 2.4	2.0 - 2.4
Dimensions (L x W x H)	mm	1320 x 500 x 1130	1360 x 545 x 1140
Total weight empty	kg	90	92
Total weight ready to operate	kg	135	138

E 60 Series

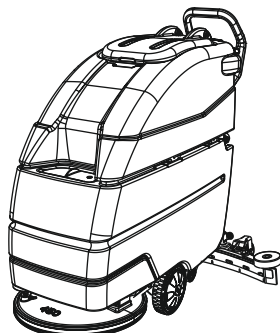
Description	Units	E6050	E6050C	E6060
Scrubbing width	mm	500	500	600
Effective suction width	mm	850/750	850/750	850/750
Theoretical area coverage	m ² /h	2000	2000	2400
Working speed, up to	km/h	4	4	4
Airflow rate	L/sec	28	28	28
Vacuum Pressure	mm of H ₂ O	1087	1087	1087
Power supply	V/Hz	230/50	230/50	230/50
Total power	W	1400	1000	1400
Brush motor	W	800	800	800
Vacuum motor power	W	400	400	400
No. of brushes	No.	1	2	2
Diameter of brush	mm	500	100	330
Brush speed	rpm	180	650	180
Brush load	kg	26	28	30
Fresh water tank	L	60	60	60
Dirty water tank	L	60	60	60
Through put, max	L/min	2.0 - 2.4	2.0 - 2.4	2.0 - 2.4
Dimensions (L x W x H)	mm	1350 x 550 x 1120	1325 x 620 x 1120	1400 x 725 x 1120
Total weight empty	kg	100	100	110
Total weight ready to operate	kg	160	160	170



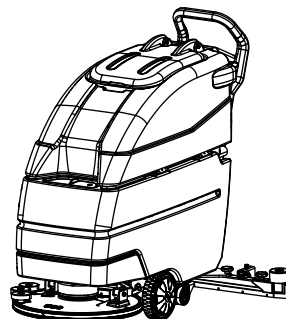
E 45 Series



E 4545
Disc Type with
Straight Squeegee



E 4545
Disc Type with
Parabolic Squeegee &
Solenoid Valve

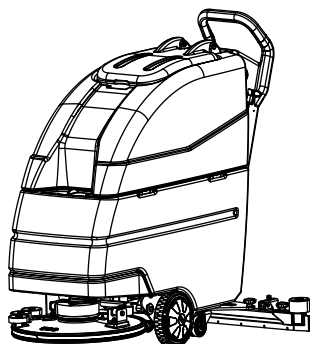


E 4550
Disc Type with
Straight Squeegee

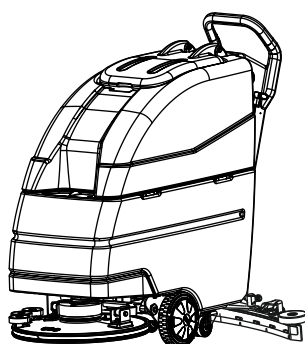


E 4550
Disc Type with
Parabolic Squeegee &
Solenoid Valve

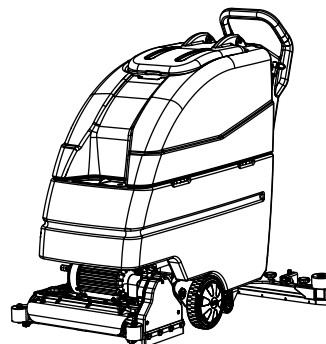
E 6050 Series



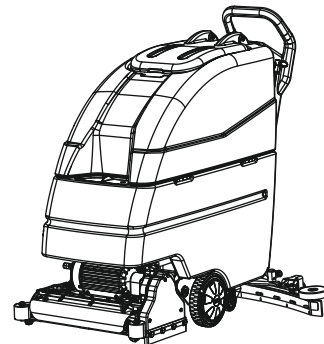
E 6050
Disc Type with
Straight Squeegee



E 6050
Disc Type with
Parabolic Squeegee &
Solenoid Valve

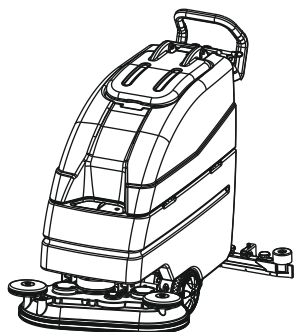


E 6050 C
Cylindrical Type with
Straight Squeegee



E 6050 C
Cylindrical Type with
Parabolic Squeegee &
Solenoid Valve

E 6060 Series

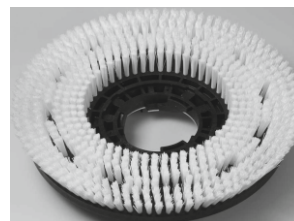


E 6060
Twin Disc Type with
Straight Squeegee

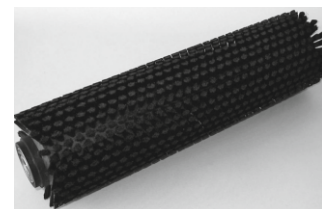


E 6060
Twin Disc Type with
Parabolic Squeegee &
Solenoid Valve

Type of Brush



Disc type



Cylindrical type

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 or 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:



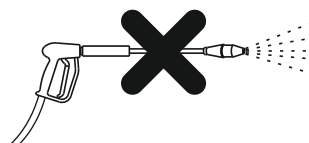
DANGER

- 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.

MACHINE 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 manuals for himself or does not completely understand the operation of the equipment, it is the responsibility of the supervisor to read and explain the manuals, 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 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 sweeping operations by checking the Pre-operative checklist and testing the machine functions.

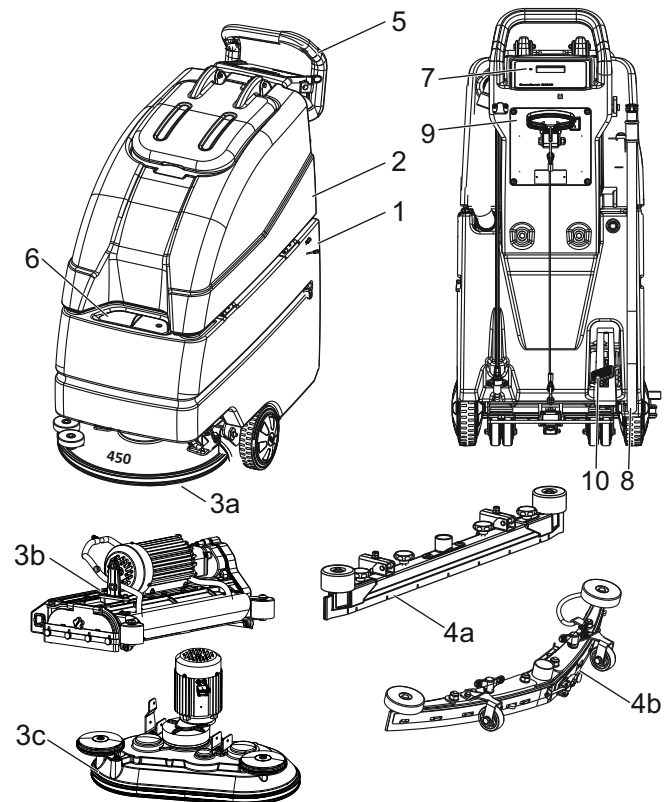
After Unpacking

Verify the machine and accessories with the invoice copy. Check the machine for any transit damage, if found contact the branch/dealer immediately.



Owner's personnel are not allowed to unpack the machine.

Identification of Main Parts

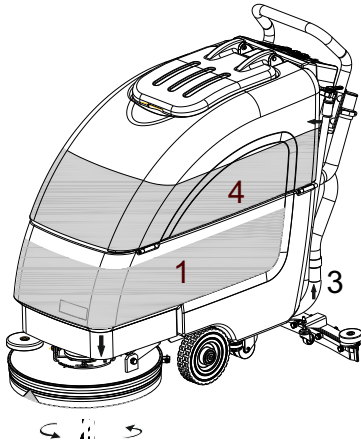


- | | |
|---------------------|--------------------------------------|
| 1. Fresh water tank | 6. Fresh water fill port |
| 2. Dirty water tank | 7. Control panel |
| 3. Brush head | 8. Fresh water level indicator |
| a) Disc type | 9. Squeegee control handle |
| b) Cylindrical type | 10. Pedal for raise/lower brush head |
| c) Twin Disc type | |
| 4. Squeegee | |
| a) Straight | |
| b) Parabolic | |
| 5. Handle | |

MACHINE OPERATION

Principle of Operation

A squeegee and suitable brushes or pads are required for wet cleaning of hard floorings. The rotating brush scrubs the floor thoroughly, removing dirt through suds, thereby cleaning the floor. The dirty water is drawn during the same cycle through the squeegee. Thus, the floor can be walked on immediately after it is dry and clean.



Useful Tips:

- Prior to wet cleaning, it is necessary to sweep the floor.
- This way, not only is the cleaning efficiency improved, but wear 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 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.



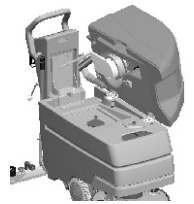
Comply with instructions for correct dosage of detergent. Correct dosage will help optimize costs and also minimize impact on the environment. Too much foam can affect the performance of the machine.

Before Operation:

1. Tilt the body of the machine to gain access to the inside of the fresh tank, the tank will stay in its position with a help of a rope assy.



- Care should be taken while closing the tank.
- Do not drop hardly, which might cause possible damage to equipment and cause personal injury.

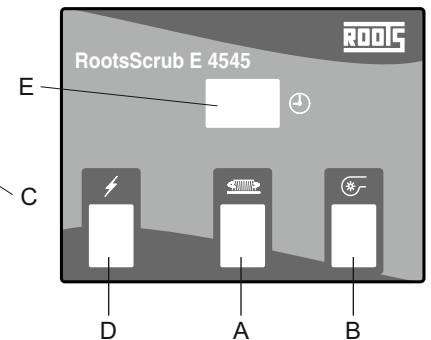


2. The brush motor is fastened to the connecting arm for upward and downward movement of brush head and this can be controlled by the pedal. In order to prevent unwanted swinging movement during transport, stopper pin in the connecting arm hits the bolt of the brush head to retain its stability.

Operating & Indicator Elements:

Controls - E4545, E4550 & E6050

Brush Motor, Suction Turbine, Brush Release Switch and Indicator Lamp.



A. ON/OFF Switch for Brush Motor

- Is on when "A" is at position "I"
- Is off when "A" is at position "O"



B. ON/OFF Switch for Suction Turbine

- Is on when "B" is at position "I"
- Is off when "B" is at position "O"

C. Switch for Brush Release



Will release the brush when pressed.
Ensure the switch A is at position "O"

D. Indicator Lamp

- Glows when power is on.

E. Hour Meter

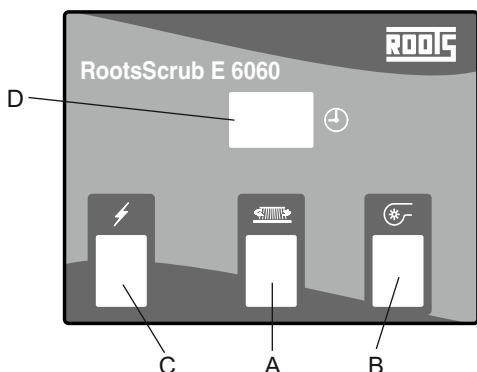
- To show the total working of the machine in hours.

MACHINE OPERATION



Controls - E6050C & E6060

Brush Motor, Suction Turbine, and Indicator Lamp.



A. ON/OFF Switch for Brush Motor

- Is on when "A" is at position "I"
- Is off when "A" is at position "O"



B. ON/OFF Switch for Suction Turbine

- Is on when "B" is at position "I"
- Is off when "B" is at position "O"

C. Indicator Lamp

- Glows when power is on.

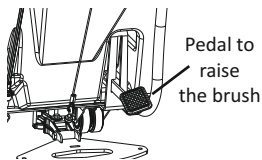
D. Hour Meter

- To show the total working of the machine in hours.

OPERATION BRUSH

Brush Lifting

- Pedal is used to lift and lower the brush.
- For lowering, first press the pedal a little to outside (unlock) and then allow it to move slowly upwards.
- For lifting, press the pedal slowly downwards and make it lock.



Brushes / Pads

The machine must be equipped with brushes from the accessories kit, as required by the degree of dirtiness and kind of ground.

Disc Type Brush

Installation of brush

- The tank should be empty.
- Lift the squeegee.
- Place the brush in front of the machine.
- Raise the brush head.
- Move the brush to center of the brush head.
- Lower the brush head so that the catch is centered in the brush.
- Turn on switch "A" for a short time in order to allow locking.



When lowering the machine pay attention to prevent the pedal for lifting of the brush head from being pressed down.



The brush must snap in immediately. A rattling noise indicates that the brush head is not correctly centered. Turn off switch "A", correct position of brush head and turn on switch "C" for locking. Now the brush is locked. Repeat locking operation.

Removal of brush

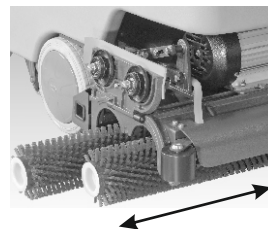
- Empty the tanks.
- Lift the squeegee and the brush head.
- Turn on switch "C" for unlocking of brush.
- Raise the brush head and move machine backwards.
- Brush is now lying in front of the machine.



Cylindrical Type Brush

Installation of brush

- Remove screw of the brush cover.
- Fasten supplied brushes at the drive rollers at the inside of the opposite cover.
- Close brush cover such that the guiding rollers and the brushes catch safely.



When mounting, check the safe catching of rollers and brushes.

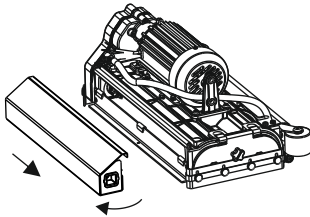


Before cleaning or maintaining the machine as well as before replacing parts of it, turn the machine off and disconnect the plug.



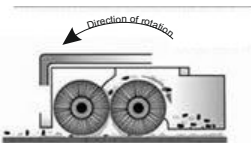
Debris Cleaning

- Tilt the debris tray towards machine side and pull it out.
- Now empty the tray by inverting it and shaking.
- Clean the tray and place it back for further cleaning.



Removal of brush

- Raise the brush head and set to its parking position. Remove the screw at the idler end, open the cover and pull the brushes towards the user.
- Close the cover and retighten the screw.



When inserting the brushes for the next operation, make sure to change position of the brush such that one-sided brush wearing is precluded.

Twin Disc Type Brush

Installation of brush

- The tank should be empty.
- Raise the brush head.
- Hold the brush in hand - press while rotating the brush onto the catch till a click sound.

Removal of brush

- Empty the tanks.
- Lift the squeegee and the brush head.
- Rotate the brush with a sudden jerk to remove them.



OPERATION SQUEEGEE

The squeegee bracket group fixed to the machine, allowing swiveling and the oscillating movements.

The squeegee, protruding at the side, evades obstacles in the machines path and is made swivel backwards.

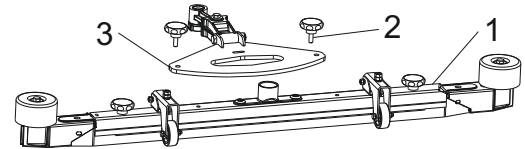


Before starting to work, check the squeegee for possible collection of foreign matter and for proper condition.

Straight Squeegee

Mounting of Squeegee (first time)

- Lift squeegee bracket group (3)
- Mount squeegee (1) to squeegee bracket group (3) and screw the knobs (2) as shown in figure.
- Attach suction hose to the tubular socket of the squeegee.



1. Squeegee
2. Squeegee Knob
3. Squeegee Bracket group



The supporting wheel under the squeegee bracket group has been adjusted by the factory.

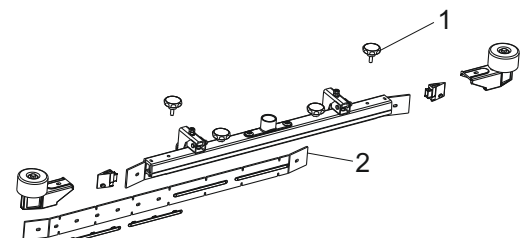
Removal of Squeegee

- Lift squeegee.
- Unscrew the squeegee nut (1).
- Remove the squeegee towards the bottom side.
- Detach suction hose from the tubular socket of the squeegee.

Replacement of Sealing Strips

The sealing strips can be removed without any need of tools, as follows:

- Remove the squeegee.
- Remove the knob at the deflector area.(1)
- Pull the sealing strips (2).
- Mount the new sealing strips by inverse sequence of operation.

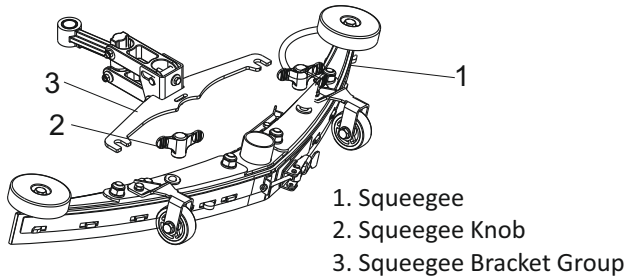




Parabolic Squeegee

Mounting of Squeegee (first time)

- Lift squeegee bracket group (3)
- Mount squeegee (1) to squeegee bracket group (3) and screw the knobs (2) as shown in figure.
- Attach suction hose to the tubular socket of the squeegee.



The supporting wheel under the squeegee bracket group has been adjusted by the factory.

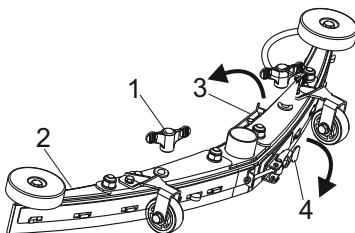
Removal of Squeegee

- Lift squeegee.
- Unscrew the squeegee knob (2).
- Remove the squeegee towards the bottom side.
- Detach suction hose from the tubular socket of the squeegee.

Replacement of Sealing Strips

The sealing strips can be removed without any need of tools, as follows:

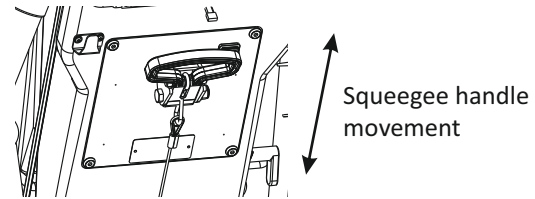
- Remove the squeegee.
- Remove the squeegee knobs.(1)
- Release the Inner(3) and Outer clamps(4).
- Pull the sealing strips (2).
- Mount the new sealing strips by inverse sequence of operation.



- If worn, the rear sealing strip can be turned at the front side edge.
- The supporting strip may modify the sealing strip effect, hard-soft, and thus be adapted to different floor conditions.

Raising / Lowering the Squeegee

- To lower the squeegee pull the handle up from the slot and lower squeegee.
- To raise the squeegee pull the handle up and place in slot provided.



PROCEDURE FOR SCRUBBING

Dirty and Fresh Water Tanks

The machine has a Dirty Water Tank and a Fresh Water Tank. The filling capacity is 45/60 liters. Please do not fill beyond that mark; water temperature must not exceed 50°C. Dirty water is fed via the suction hose into the dirty water tank.



- Do not collect any external water.
- When work is finished both the dirty and the fresh water tanks on principle must be drained and rinsed in order to preclude formation of residues.



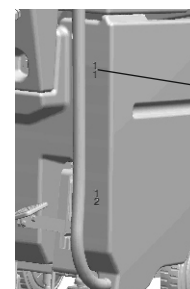
For disposal of dirty water and lye, the legal provisions have to be compiled with.

Check the in-feed filter in the tank regularly and clean it if required.

Filling of Water



- Fill fresh water and detergent as described below before start of operation.
- Fill the fresh water tank with water (50° max) as required by the work to be done through the filter which is present in front of the machine and add detergent as specified by the manufacturer.
- Filling amount : 45 (45 series)/60 (60 series) liters Max.



Max water level

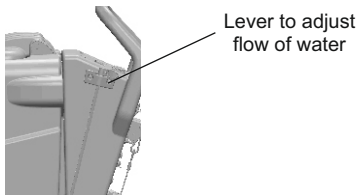


Use detergents suitable for automatic machines (low foaming) in order to preclude damages at the suction turbine. We recommend our agents for cleaning and care, which are perfectly adopted to the machine. These products fulfil the requirements of the Detergents Act.



How to operate the machine:

- Turn on Switch "A" the brush is rotating.
- To discharge the detergent, position the lever suitably to achieve the desired flow of detergent.
- Lower the brush head.
- Lower the squeegee.
- Turn on switch "B" the suction turbine is running.
- As soon as the suction turbine is switched on operate the lever to start water flow.
- The water flow can be adjusted to suite the floor.
- The water flow is maximum when the lever is in top position.
- The water flow is minimum or to stop when the lever is in bottom position.
- For E4545, E4550, E6050, E6050C & E6060 models water flow is controlled by mechanical stopper.
- For E4545 Exp, E4550 Exp, E6050 Exp, E6050C Exp & E6060 Exp models water flow is controlled by solenoid valve.



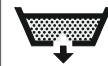
After lowering the brush move the machine immediately; otherwise the brush might leave traces on the floor. Lift the squeegee during reverse travel. When passing over dormers with a height of more than 0.7° in =10 mm, the brush drive must be turned off and the brush must be lifted up.



- 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.

Procedure for draining tanks

- Unclamp the drain hose from the hose clamp.
- Lower the tip of the drain hose to the floor level
- After draining the water completely, clamp the hose in the hose clamp as shown in fig.



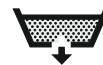
Draining of Dirty water tank

- The hose used to drain the dirty water.



When work is completed, the dirty water tank has to be drained and rinsed.

Remove the hose from this clamp to drain the water.



Draining of Fresh water tank

- The water level hose is used to drain the fresh water.



The tank requires rinsing at regular intervals.

At the end of cleaning

- Stop the machine and lift the brush head.
- Lift the squeegee.
- Drain and rinse the dirty water tank (refer to section "Dirty and Fresh Water Tanks")
- Clean the sealing strips at the squeegee.
- Check the strainer upstream of the intake opening in the fresh water tank; clean if required, as otherwise the suction efficiency will be affected.



The machine must not be cleaned by water jet or high pressure cleaning equipment, as this will endanger its proper working function.



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.**



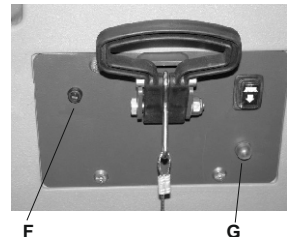
Electrical System

The electrical equipment of the machine uses a mains voltage of 230 V/50 Hz AC. Easy access to brush motor and suction turbine is possible after the upper part of the unit has been tilted to upside.

The suction turbine has been provided with a fuse (F) having a rating of T4A. It must be replaced by a fuse of same rating (T stands for Time-lag).

The brush motor is protected by a circuit breaker (G) which requires to be manually reset in case of tripping. When brush motor trips identify the cause and correct it before trying to run the machine.

The protector can be reset by pressing transparent dome on the electrical box cover. Please allow approximately 30 seconds before resetting.



- If there should be repeated cases of failure, look for the reason.
- Any work at the electrical system has to be carried out by specialized electricians only.

Maintenance Work

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

Please contact your local Roots Multiclean distributor; 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.

- Well trained personnel and genuine Roots spare parts are at your disposal.
- In case of any inquiries or orders 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 parts, 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.



Storing the Machine

The below procedure explains the proper method to store the machine:

- Ensure that the fresh and dirty water tanks are drained and dry.
- Ensure that the brush head is lifted up and secured.
- Ensure that the brushes are clean and free from any debris.
- Ensure that the machine is always stored indoors only and not exposed to the environmental elements.
- Ensure that the machine is parked on a flat level surface and secured.



WARNING:
Disconnect power cord.



WARNING: PROTECT FROM



LIQUIDS



COLD



FIRE



WIND



HEAT



CHILDREN

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.



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
	O	Flow divertor	Check for debris, clean
Weekly	O	Squeegee assembly	Check, clean
	O	Dirty water tank seal	Check for wear
50 Hours	O	Squeegee lips	Check for deflection
	O	Squeegee lips	Check for wear, turn or replace
	O	Power cord	Check for damage
100 Hours	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
	O	Nozzle	Check nozzle for block, clean if required
200 Hours	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
	T	Suction turbine	Check carbon brushes, replace if required



TROUBLESHOOTING CHART

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

BRUSH & PAD

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								

DO'S & DON'TS



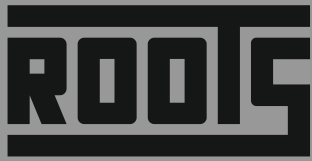
Do's

- ✓ Prior to cleaning, sweep the floor before using the machine.
- ✓ Use the machine in even surface.
- ✓ Use only Non foaming chemical for cleaning.
- ✓ Always check the condition of mains cable.
- ✓ Inspect the condition of float filter for any deposit of dirt.
- ✓ Readjust the squeegee wheel for proper suction.
- ✓ Dirty water to be drained if it reaches the cut-off stage.
- ✓ After use, fresh & dirty water tanks have to be drained.
- ✓ After using the machine, squeegee lips, float assembly and dirty water tank have to be cleaned with fresh water.
- ✓ During transport brush head & squeegee assembly should be in lifted position.

Don'ts

- ✗ Do not use inflammable liquids (thinner / kerosene) in fresh water tank for cleaning operation.
- ✗ During cleaning Do not run the machine over the mains cable.
- ✗ After use, during cleaning the machine do not allow water on the panel board.
- ✗ Do not clean the machine with high water pressure jet equipments.
- ✗ Do not use the machine unless the main cable is in proper condition.
- ✗ Do not use the machine on soft ground, slushy areas, artificial turf, soil.





Roots Multiclean Ltd.

R.K.G. Industrial Estate, Ganapathy, Coimbatore - 641 006, India.

Phone: +91 (422) 4330 330, *E-mail:* rmclsales@rootsemail.com

Web: rootsmulticlean.com

Toll Free: **1800 41 99 77 9**