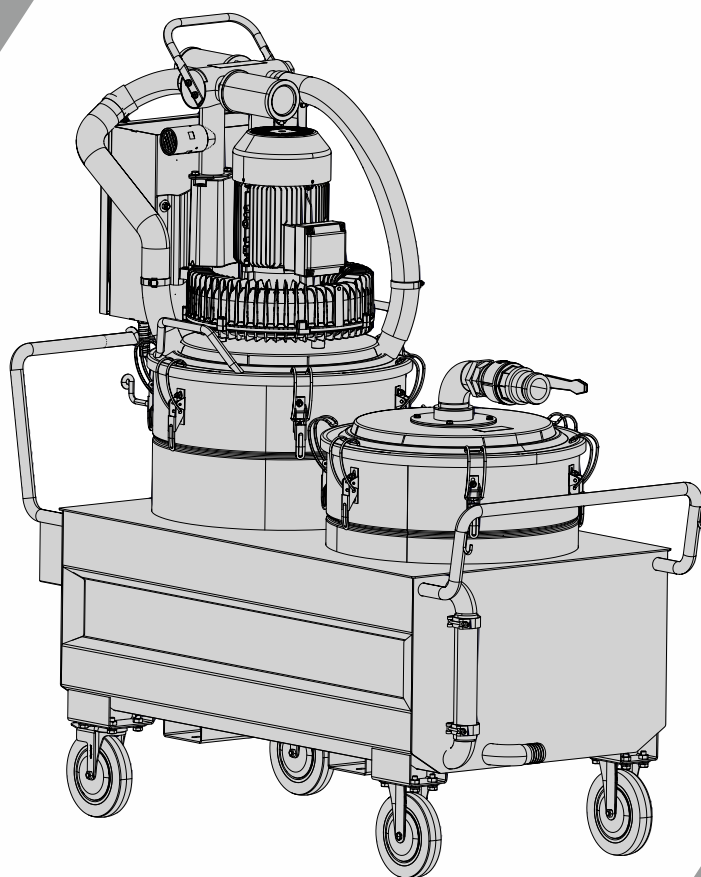


OIL 200

*Oil Recycling Unit
Electric*



400V/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
	Intended Use	5
	Technical Specifications	6
	Safety Instructions	7
	Know Your Machine	12
	Machine Operation	14
	Maintenance	19
	Troubleshooting	23
	Do & Don'ts	24

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. - _____

Blower 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: 557412012-00, Rev: A, Date: 08/2021

Prepared by: KM-NPM TD Dept.



PREFACE

Dear Customer,

We are pleased with your having chosen the **OIL 200** 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 machine is intended for industrial use, for example in machining centres. It is designed to clean and collect liquids like oil/coolants with swarf, non-flammable materials in an indoor environment.

Use only recommended filters/accessories.

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



Technical Specifications

Description	Unit	Value
Voltage	V/Hz	400/50
Phase		3
Power (Output), Max	KW	3
Protection	IP	55
Insulation	CLASS	F
Vacuum Pressure (Full Close)	mm of H ² O	2957
Vacuum Pressure (Operating Condition)	mm of H ² O	2652
Air Flow	m ³ /hr	305
Delivery Flow Rate	lpm	150
Container Capacity (Float cut-off)	Liters	235
Chip Basket Capacity (Theoretical)	Liters	50
Suction Inlet	mm	50
Filter Type		OIL MIST
Sound Level	dB (A)	83
Weight	Kg	220
Dimensions - L x B x H	mm	1460 x 660 x 1590

SAFETY INSTRUCTIONS



SAFETY & WARNING SYMBOLS

All paragraphs in this manual referring to you personal safety, the safety of your machine and the environmental protection are attributed 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

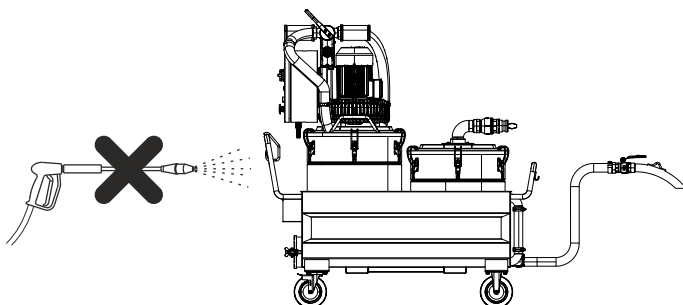


Prior to first operation, read the manual carefully and strictly comply with the instructions contained.



WARNING

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



General Guidelines

- In addition to the information contained in this manual, generally applicable legal provisions for Safety and Prevention of accidents must be adhered to.
- Please go through the manual and the instructions contained herein carefully, even if you possess prior experience in operating similar vacuum cleaning equipment.
- Schedule some time for the careful and thorough perusal of the manual contents.
- The responsibility of all persons in the working area fall upon the operator of the machine.
- No persons, children included, should be allowed within the zone of danger.
- The warning and instruction plates attached to the machine carry important advice on safe operation of the machine.
- Lost or illegible stickers must be replaced at the earliest.
- Prior to operation of the machine, the operator must ensure that the machine and its working implements are in proper and safe operating condition.
- Machines with identified and known defects must not be used.
- It is important that operators and all persons likely to use the machine familiarize themselves with all accessories and controls, as well as their functions, before commencing operation.
- Adherence to the above general instructions will help avoid the operator from having to read the manual while operating the machine.

Safety During Machine Operation

- The machine is applicable for WET vacuuming .
- The machine may be used only by the authorized personal.
- The machine may be used for cleaning such surfaces approved by the owner or this authorized representatives.
- When transporting machine, shut down the motor. The operator must use the machine in accordance to its intended fields of application.
- During operation, the operator must take account of local conditions (stairs, obstacles) and of other persons, particularly children.
- Turn off the machine before any passage over dormers.
- The following indications are, by themselves, not enough to fully protect against all the hazards that could arise during machine operation. These will have to be integrated with common sense and the experience of the operator, both of which are crucial factors for preventing accidents.
- Maintenance jobs must always be performed with the power plug detached from the power point.
- The employer must inform and train the user according to the provisions of applicable laws.

SAFETY INSTRUCTIONS



- Before using the machine, prepare and train yourself by reading this manual carefully. Use of the machine by untrained and unauthorized persons is forbidden.
- Using the machine to vacuum toxic substances is forbidden unless this has been equipped with special filters required for the specific type of material.
- Do not vacuum flammable materials or substances or which could cause explosions (fuels, solvents, etc.)
- Do not vacuum corrosive substances unless the machine is equipped with containers suitable for this purpose.
- Use of the machine without the supplied filters is not recommended. If the filters are correctly fitted, the machine will not eject any objects.
- The machine casing containing moving parts must not be removed by the user.
- Use the machine cautiously on slopes and ramps. Do not change direction on gradients.
- Make sure the parked machine remains stable by operating the brake wheel.
- During cleaning operations, maintenance jobs or when changing parts, the starter switch must be off and the machine must be disconnected from the power mains by removing the cable from the socket.
- Only skilled persons should carry out repairs.
- Periodically check the main power cable to ensure this is not damaged.
- In the event of the cable being damaged, the machine must not be used.
- In the event of the cable, plugs or couplings being replaced, make sure these are protected against water spray and check mechanical strength.
- Motor and burnt-out fuses must be replaced by Roots or authorized dealers. Always use original spare parts.
- The user is responsible for disposing of vacuumed substances in accordance with applicable laws.
- The machine must not be operated in a corrosive or explosive environment.
- Always make sure the machine is free of all foreign materials such as debris, oil, equipment and other objects that could affect operation and cause injury to persons.
- Avoid using flammable or toxic solvents such as petrol, benzene, ether and alcohol for cleaning.
- Avoid prolonged contact with solvents and inhaling their vapors. Avoid close to open flames or sources of heat.
- Never use the machine without the filters.
- Make sure all the guards and protection devices are in place and that all the safety devices are in place and working properly.
- Do not wear loose or hanging clothing such as ties, scarves or torn garments that could become trapped and be sucked up by the machine.
- The manual should always be kept handy for reference so the operating cycle can be checked every time there are doubts. In the event of this manual being lost or damaged ask Roots for a new copy.
- Structural damage and improper alterations or repairs could change the protection capacity of the vacuum cleaner and therefore cancel this certification.
- During maintenance jobs, affix a notice to the appliance indicating **"MACHINE BEING SERVICED, DO NOT START"**.
- Climbing on the machine is forbidden.
- Never touch electric wires, switches, button etc with wet hands. Before connecting to the power mains, make sure the power voltage and frequency match to those shown on the machine plate.
- Make power connections to a main supply with efficient earth system. In the event of an extension being used, make sure this is in perfect condition, marked CE and that the cross section of the cable is suitable for the vacuum cleaner power input.
- When restoring original working conditions, the appointed personnel should make sure that at the end of the operating procedure, proper machine operation safety conditions are restored, especially the safety devices and the protective guards.
- Only adult persons should use the machine.
- During vacuuming operations, always brake the machine using the special revolving wheel lock.
- To ensure the correct operation of the machine, this must be positioned, protected against atmospheric agents (rain, hail, snow, fog, dusts in suspension etc.) With an environmental running temperature between 5°C to 45°C and relative humidity not above 70%.
- Using the machine to vacuum toxic substances is forbidden unless this has been equipped with special filters required for the specific type of dusts. Such filters must be explicitly requested by you.
- Do not open the vacuum container with the machine running.



- The blower motor is splash-water proof.
- Use of the machine in areas prone to explosion hazards is strictly forbidden.

SAFETY INSTRUCTIONS



Turn the motors off to protect the machine against unintended movements, before leaving it unattended.

Never collect explosive fluids, undiluted acids and solvents. This includes e.g. gasoline paint thinners or fuel oil, which-when combined with air, may form explosive vapors or mixtures. Acetone, undiluted acids and solvents can be aggressive to the material used for the machine components.

- Do not clean the machine by means of vapour jet or high pressure cleaning equipment. Do not allow water to penetrate the electrical parts.
- Do not USE the machine on steps or slopes.

Safety Plate and Symbols

- Decals are affixed to the machine showing safety symbols and/or messages.



Make sure all the safety decals are legible. Clean these with a cloth. Do not use solvents, diesel fuel or petrol. Replace the damaged decals with new ones supplied by Roots.

- Read the operator's manual carefully before using the machine or doing any maintenance jobs.



- Removing the safety decals on the machine is strictly forbidden.
- The manufacturer declines all liability in relation to machine safety in the event of failure to comply with the above indications.

Handling of Power Cords

- Make sure that the power cord is not damaged by running over, squeezing, dragging, etc.
- The power cord must be checked regularly with regard to damage and aging.
- The machine must not be used unless the power cord is in proper condition.
- Use only original extension cables, with maximum admissible length of 25 m.
- When using or replacing power cord, it is necessary to adhere to as specified by the manufacturer.
- When replacing coupler plugs of power cord or connecting leads, splash-proof protection and mechanical strength must be guaranteed.
- During use, mind the power cord, avoid crushing or pulling these.
- Never pull the machine by means of power cord or the vacuum pipe.
- When replacing with a new power cord ensure the motor rotation direction. If air is blown out of the exhaust port, the wiring is correct. *(Ensure that this is checked during the commissioning of the machine)*

Crush Hazard



- Risk of crushing hands while fitting and locking the chip basket on the machine.
- Never place hands between the chip basket and top cover while locking.
- Perform the chip basket top cover locking operation by means of latches located on the sides using both hands.

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.

DANGER - Do Not Vacuum:

**Corrosive/Battery Fluids/Explosive/Flammable/
Magnetic/Radio-active/Biohazard Materials.**



PERSONAL PROTECTIVE EQUIPMENT (PPE):

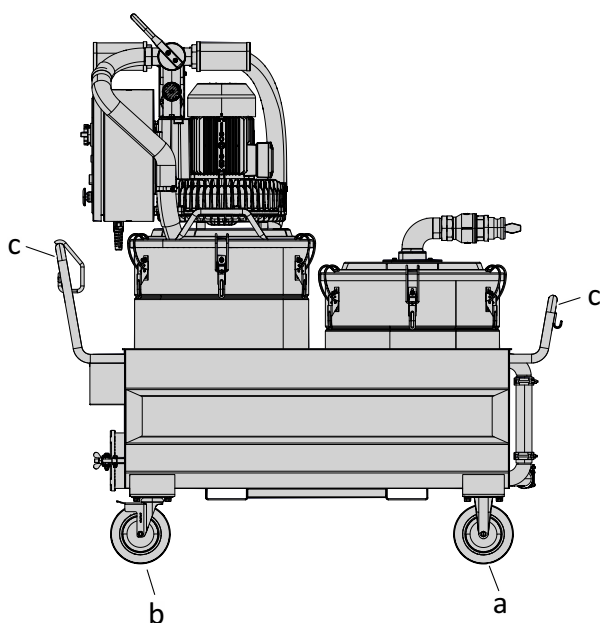
As necessary:



SAFETY INSTRUCTIONS



TRANSPORT



- For easy transportation, the machine is equipped with fixed (a) and swivel (b) castor wheels.
- Use the large handles (c) in the front and rear to move the machine.
- The machine can be moved only on flat ground!
- If the machine is moved on inclined grounds, you can risk to lose the control, because of the weight and to damage persons or things.



The machine must never be moved using a fork-lift or other equipment that lifts it off the floor.

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.






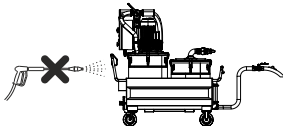







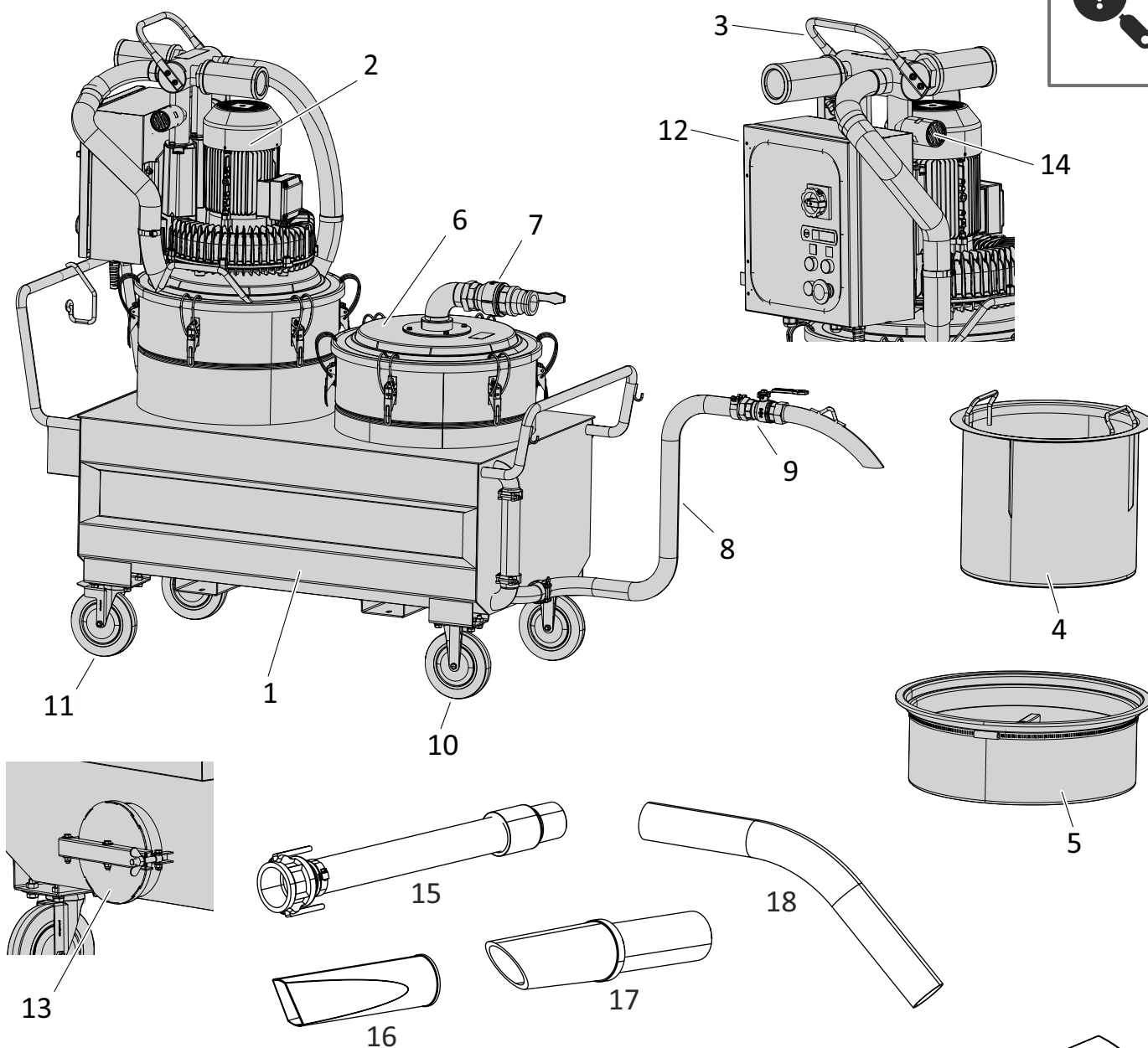
Old machines contain materials that can be recycled. Please arrange for the proper recycling of old machines. Batteries, electrical & electronic components contain substances that must not enter the environment. Please dispose off your old machine, batteries, electrical & electronic components using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

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>Toxic Hazard</p>	 <p>Do Not Use High Pressure Jets</p>	 <p>Electrical Hazard</p>	 <p>No Smoking</p>
 <p>Do not let powercord come in contact with water or other fluids.</p>	 <p>Disconnect Powercord</p>	 <div data-bbox="1005 814 1152 951"> <p>⚠ DANGER</p> <p>Electrical Shock or Burn Hazard.</p> <p>Turn off power supplying this equipment before working on it.</p> </div> <p>Electric Shock Hazard</p>	



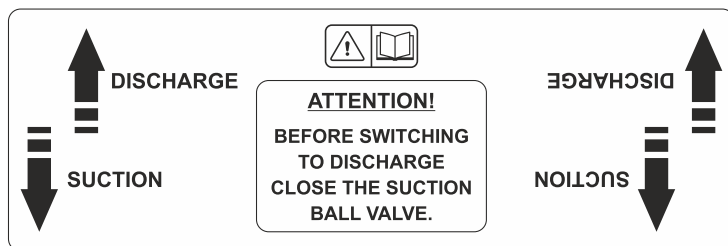
1. Liquid collection tank
2. Blower unit
3. Changeover valve
4. Chip basket
5. Oil mist filter
6. Chip basket top cover
7. Suction valve
8. Delivery tube assembly
9. Delivery valve
10. Fixed castor wheel

11. Swivel castor wheel with brake
12. Control panel
13. Manhole cover
14. Pressure relief valve (PRV)
15. Suction hose
16. Crevice nozzle
17. Rubber cone nozzle
18. Bend nozzle
19. Wet floor nozzle
20. Extension pipe

KNOW YOUR MACHINE



DECALS ON THE MACHINE

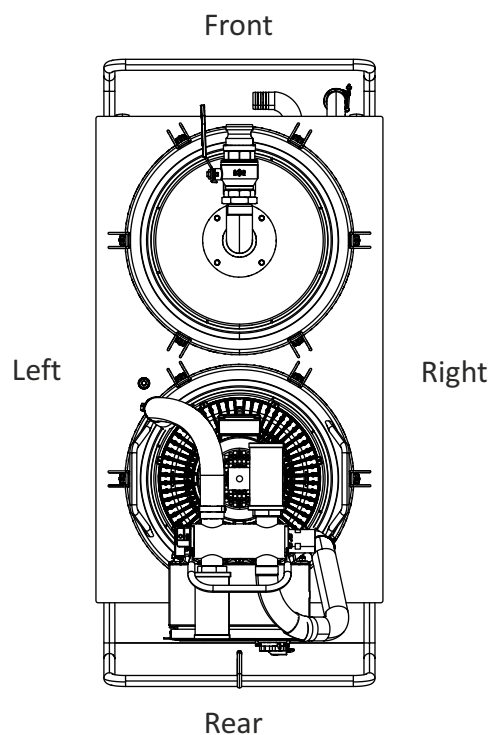


Suction/Discharge Changeover Sticker



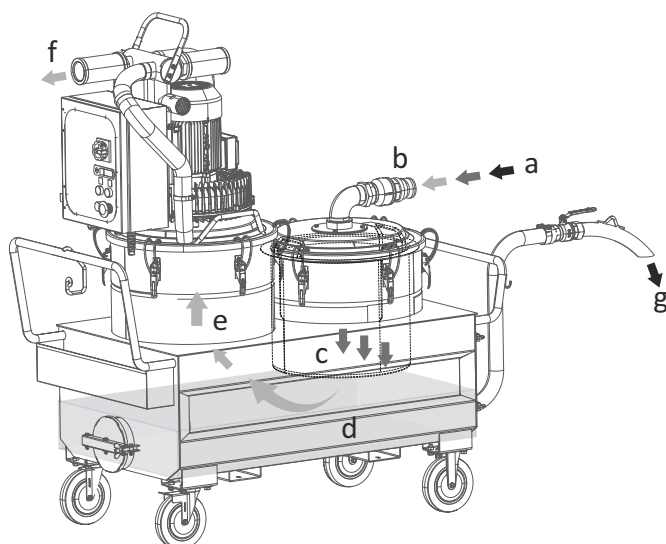
Top Cover Sticker

MACHINE ORIENTATION



MACHINE OPERATION

WORKING PRINCIPLE



-  Air
-  Swarf
-  Liquid

Liquid and swarf (a) will be sucked in through the suction inlet (b), the swarf will get accumulated in the chip basket (c) and the liquid will be collected in the collection tank (d). The oil vapour will be filtered through the oil mist filter (e) and the exhaust air (f) will be vented out. The liquid will be drained through the delivery tube (g).

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.

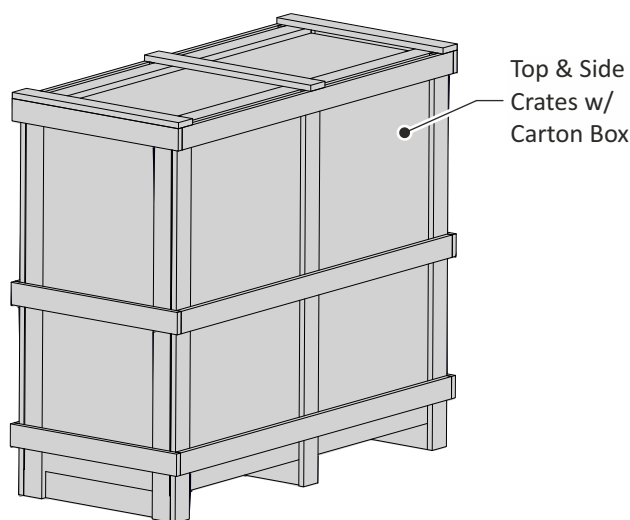


Read this manual completely and understand before operating this machine. Also ensure that the persons who are going to operate this machine have also read and understood the contents of this manual.

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 accessories.
- ➔ Remove J-Bolts from the chassis of the machine.
- ➔ Cut retaining straps at the front and rear.
- ➔ The main power cord is wound and tied to the machine.
- ➔ Carefully roll the machine from the pallet onto the floor.
- ➔ Check machine and accessories against the order invoice.
- ➔ Accessories will be placed inside the chip basket during packing.



(Packed 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 roll the machine.**
- ☞ **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.**

MACHINE OPERATION

Upon Unloading:

- Check the machine for any transit damage such as dents, paint damage, scratches, etc.
- Check power cord.
- Check the filter for any damage.
- Check the accessories for damage.

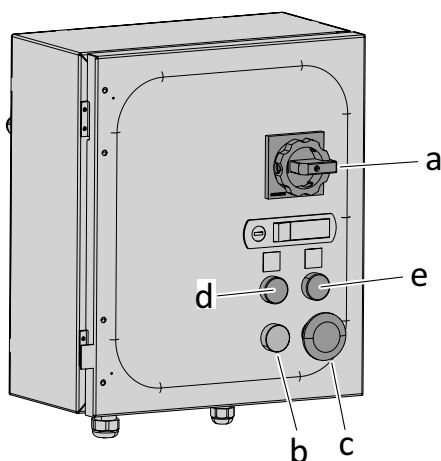


WARNING:

Do not throw the packaging material into the environment.

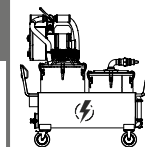
CONTROLS

1. CONTROL PANEL



- a - Rotary switch - Mains On/Off.
- b - Green switch - To start the motor.
- c - Red stop switch - To stop the motor / Emergency stop.
- d - Green indicator - Glows to indicate power is available in the machine.
- e - Red indicator - Float switch activation/changeover valve position error.

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:

- a. Train the employee to operate the machine in a safe way.
- b. Permit only qualified personnel to operate and service the machine.
- c. Instruct all operators to maintain the shields and guards in its proper working condition at all times.
- d. Ensure that the operators use approved Personal Protective Equipment (PPE) at all times or whenever required.
- e. Forbid the operators to carry additional people on the truck or the machine.
- f. 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.
- g. Ensure that children do not operate the machine.

MACHINE OPERATION

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.

Note: Also ensure the direction of rotation of the motor. (*Air should be sucked in through the suction inlet (b)*).

MACHINE OPERATION

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

- ➔ PRE-VACUUMING CHECKPOINTS
- ➔ TRANSPORTING THE MACHINE
- ➔ CONNECTING THE SUCTION HOSE
- ➔ VACUUMING PROCEDURE
- ➔ END OF VACUUMING
- ➔ EMPTYING THE COLLECTION TANK
- ➔ POST-VACUUMING CHECKPOINTS

PRE-VACUUMING CHECKPOINTS:

- Check for any exterior damage to the machine.
- Check the hoses for damage.
- Check the filter for damage.
- Check for leaks in the collecting tank.
- Check the position of the changeover valve lever.
- Check if the area to be cleaned is free from any hazardous chemical or other substance.
- Check if the collection tank is empty and clean.
- Check if the right accessories are equipped for vacuuming.
- Check if the top cover and latches are properly secured.
- Check if the power rating at the worksite matches with the specification on the machine's nameplate.

Worksite:

Ensure that there are no flammable materials in the vicinity of the machine during vacuuming.

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.

TRANSPORTING THE MACHINE:

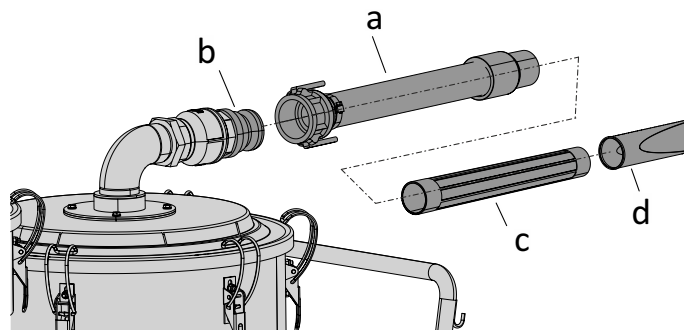
To move the machine, release the parking brake and push/pull the machine using the large handle.

Note: Ensure that the accessories are secured in the tray and the delivery hose is secured at the front of the machine.

! WARNING

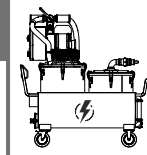
- **Do not push or pull the machine at a fast pace, risk of tipping and damaging the machine or risk of running away and causing damage to property or persons.**
- **Hold the handles tightly when going down or up a slope.**
- **Use industrial gloves for better grip (if required).**
- **Do not push or pull the machine when the castor wheel is locked.**

CONNECTING SUCTION HOSE & TOOLS



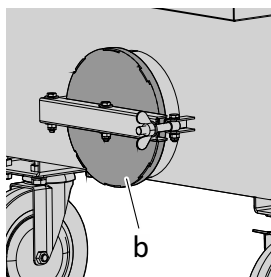
Connect the suction hose assembly (a) to the machine's suction inlet (b) and lock, connect the extension pipe (c - if required) to the other end of the flexible hose, connect the required tool (d). Follow the same procedure to connect other tools with the machine.

Note: Ensure that suction hose and tools are assembled tightly.

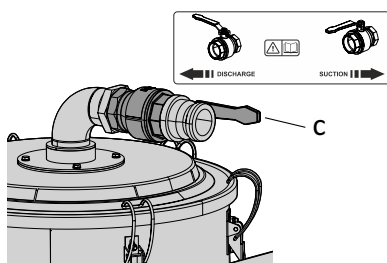


A technical diagram showing a grey cylindrical tank with a lid. A hose is connected to the top of the tank via a curved elbow fitting. The hose extends upwards and to the right. A separate, shorter hose is shown connected to the side of the tank near the bottom.

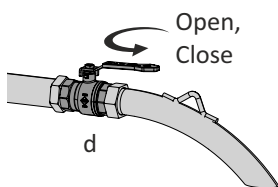
a



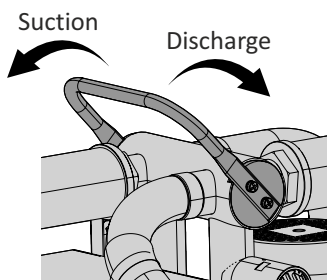
b



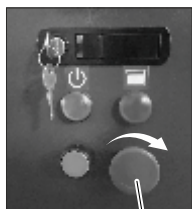
C



d



e



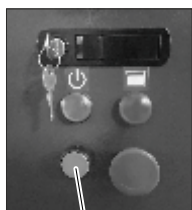
f



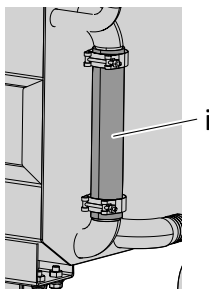
Off



On



h



i

- Connect machine power cord to wall socket.
- Position the machine near the workplace.
- Engage the brake of the swivel castor wheel.
- Connect the suction hose and tools (a) tightly to the suction inlet.
- Ensure that the collection tank manhole cover (b) is closed and is secured.
- Set the suction port ball valve (c) to “OPEN” position.
- Set the delivery tube ball valve (d) to “CLOSE” position.
- Set the changeover valve lever (e) to “SUCTION” position.
- Disengage the emergency switch (f) by turning it clockwise once.
- Switch on mains power.
- Turn the rotary switch (g) clockwise to power up the machine, a green lamp will illuminate to confirm that the machine is powered up.
- Press the green switch (h) to perform vacuuming operations.
- A level indicator tube (i) is located at the front of the collection tank to show the operator the amount of liquid filled.
- Once the collection tank is full, the float switch is activated and this will stop the machine, a red lamp will illuminate in the control panel. The motor will not restart until the collection tank is emptied.
- If the collected liquid is required to be emptied in the same place then set the suction port ball valve (c) to “CLOSE” position and also set the delivery tube ball valve (d) to “OPEN” position.
- Next position the delivery hose to the required position.
- Wait for 2 minutes for the blower to come to a complete stop before changing over function.
- Now set the changeover valve lever (e) to “DISCHARGE” position, the machine will automatically discharge the collected liquid.

Note: There is no need for the operator to turn On/Off any switches for this function.

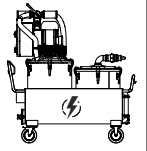
- Once the discharge operation has been completed, turn off the machine.

Warning: During vacuuming, avoid twisting or bending of the hose.

Note: Before vacuuming, ensure that the chip basket is not completely filled.

Caution: Red indicator lamp will glow if the changeover valve lever (e) is not set in “SUCTION” position during initial machine power.

In this event, change the lever position to “SUCTION” before starting the machine.



Vacuuming Operation (Continues):

Note: If the machine does not vacuum any material, the chip basket must be full. Empty the chip basket and resume vacuuming. Also check the hose/tool for any block.

- Suction performance will be reduced when the chip basket is full. Empty the chip basket to regain suction performance. Refer section “Emptying the Chip Basket”.
- To stop the machine press the Red Emergency Switch (f), wait for 2 minutes for the motor to completely stop.

End of Vacuuming:

- Turn off the machine by pressing the Red Emergency Stop Switch (f).
- Turn the rotary switch (g) anti-clockwise to Off position.
- Turn off mains and unplug power cord.

Draining the Collection Tank:

- Move machine to a designated liquid disposal area.
- Engage the brake of the swivel castor wheel.
- Set the suction port ball valve (c) to “CLOSE” position.
- Set the delivery tube ball valve (d) to “OPEN” position.
- Set the changeover valve lever (e) to “DISCHARGE” position.
- Disengage the emergency switch (f) by turning it clockwise once. (In this time red lamp will glow in control panel).
- Switch on mains power.
- Press the green switch (h) to discharge the liquid from the tank.

The machine is equipped with a Pressure Relief Valve (PRV) to vent out excess air during discharge, ensure that the PRV is not covered with any foreign object or tampered with.



WARNING

PRV setting is done at factory. Do not tamper or modify.



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 on the rear 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 PLUG 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:

- CHIP BASKET AND CLOTH BAG CLEANING
- CHANGING OIL MIST FILTER
- CLEANING COLLECTION TANK
- TIGHTNESS CHECK
- CLEANING THE MACHINE
- PUSHING & TRANSPORTING THE MACHINE
- ELECTRICAL MAINTENANCE
- STORING THE MACHINE
- FREEZE PROTECTION
- MAINTENANCE SCHEDULE CHART

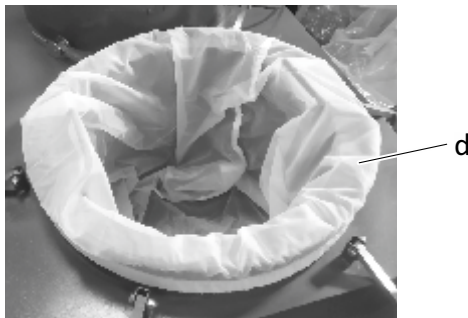
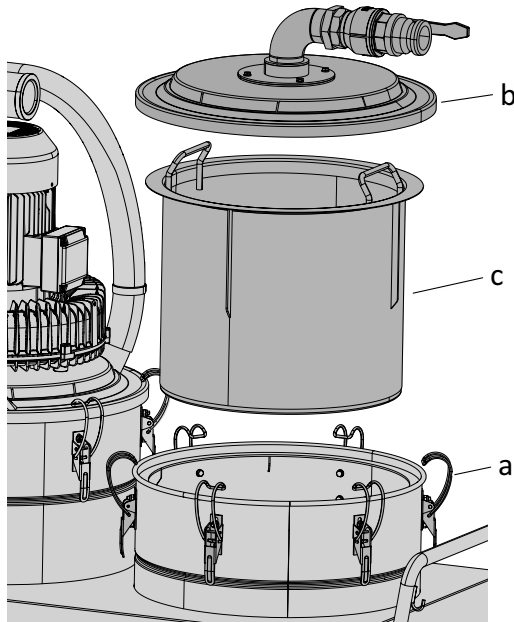


CHIP BASKET AND CLOTH FILTER CLEANING



WARNING

Before removing the chip basket filter from the machine, lock castor wheel and Unplug power cord from mains outlet.



- Park machine on a flat ground.
- Lock swivel castor wheel.
- Disconnect the suction hose from the machine.
- Open the latches (a) and remove the chip basket top cover (b).
- Remove the chip basket filter (d) from the machine.
- Remove the chip basket with swarf (c) from the machine.
- Empty the swarf from the chip basket in an appropriate way. Clean the chip basket with fresh water.
- Remove any swarf from the chip basket filter and dispose them in an appropriate way.
- Clean the chip basket filter with fresh water.
- Replace the chip basket top cover (b) and secure with latches (a).

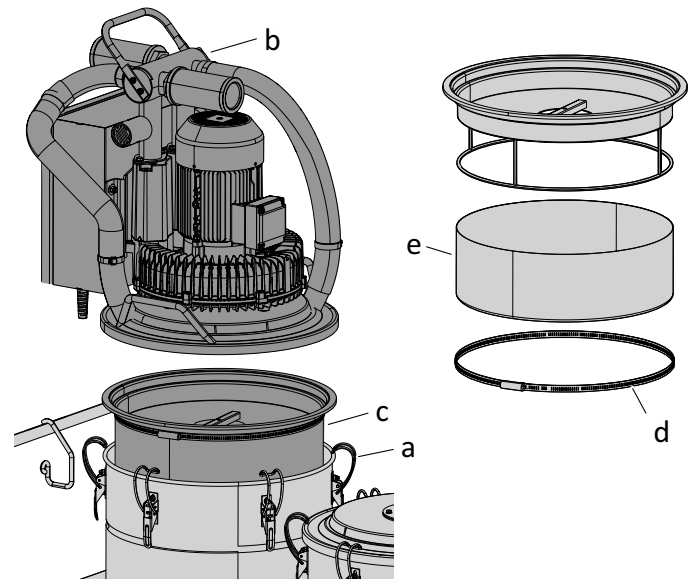
WARNING

All the swarf trapped by the chip basket and the cloth filter itself must be disposed of through authorized channels in the country where the machine is being used.

WARNING

DO NOT DISPOSE THE USED CLOTH FILTER INTO THE ENVIRONMENT. THERE IS A RISK OF CONTAMINATING THE ENVIRONMENT.

CHANGING OIL MIST FILTER



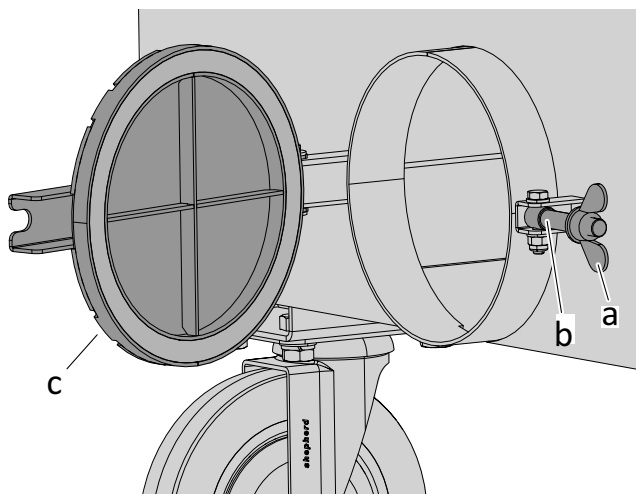
- Park machine on a flat ground.
- Lock swivel castor wheel.
- Disconnect power cord from mains.
- Open the latches (a).
- Lift the blower top cover assembly (b) and place it carefully on a safe surface.
- Remove the oil mist filter assembly (c) from the machine.
- Loosen the filter clamp (d) and remove the oil mist filter (e).
- Change the oil mist filter if necessary.
- Place the blower top cover assembly back and secure with latches.

WARNING

Blower top cover is heavy, additional manpower is necessary.



CLEANING COLLECTION TANK



- Park machine on a flat ground.
- Lock swivel castor wheel.
- Ensure that the collection tank is drained completely.
- Remove the chip basket.
- Loosen the wing nut (a) and turn the bolt (b).
- Open the manhole cover (c) up to 90° only.
- Remove the swarf from the tank using proper tools.
- Clean the inside of the tank with fresh water.

TIGHTNESS CHECK

Hoses:

Ensure that the connecting hoses are in good operating condition.

If the hoses are damaged, cracked or broken, they must be replaced.

Check inlet hoses for clogging.

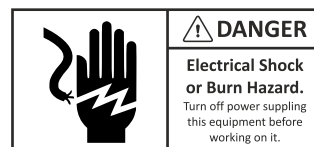
To clean the hoses, scrape the inlet from the outside to remove any deposits.

Gasket:

Check the condition of the chip basket top cover gasket for wear or damage, replace if required.

Check the condition of the blower top cover gasket for wear or damage, replace if required.

ELECTRICAL MAINTENANCE



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

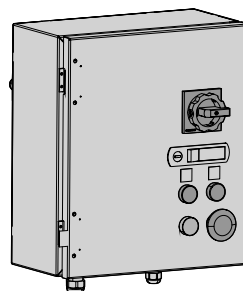


The control panel is located on the rear side of the machine. In an event of the machine getting tripped, the control panel has to be opened and checked.

Wait for 30 seconds before restarting the machine.

NOTE

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



Control Panel

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

STORING THE MACHINE

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

- Disconnect power cord from mains outlet.
- All hoses and tools have to be removed from the machine and stored in a safe dry place.
- Empty the chip basket and collection tank.
- Store the machine in a dry indoor area.
- Close the suction port with a cap.
- Lock the castor wheel.

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.





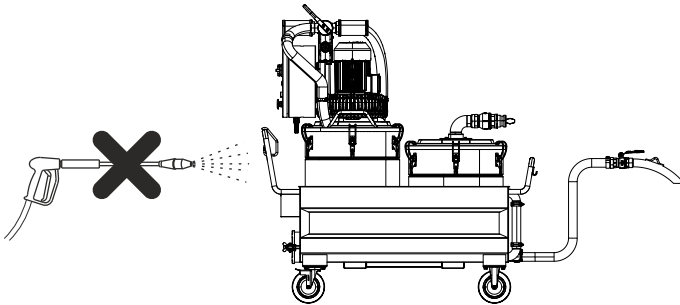
CLEANING THE MACHINE



- Unplug power cord from wall socket.
- Lock castor wheel.
- Empty collection tank and clean.
- Clean chip basket.
- Use a damp sponge with mild detergent to clean the exteriors of the machine.
- Ensure that water does not enter any electrical part.

WARNING

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



WARNING: Disconnect power cord.



MAINTENANCE CHART

The below table indicates the Person Responsible for each procedure:

O = Operator

T = Trained Personnel

Interval	Person Resp.	Procedure
Daily	O	Check connections - extension cables and plugs for good condition, discard defective cables immediately.
	O	Clean chip basket.
	O	Drain and clean collection tank.
	O	Check power supply voltage.
	O	Check hoses for damage.
Weekly	O	Remove chip basket cloth filter and clean with fresh water.
	O	Check collection tank seals/gasket for good condition.
Monthly	T	Check electrical systems like motors, starters for proper function.

TROUBLESHOOTING



Fault	Cause	Remedy
Machine fails to start.	No power.	Check mains supply. Check the integrity of the plug and power cord.
	Thermal magnetic switch tripped.	Reset the switch after 30 seconds.
	Float switch activated.	Empty collection tank.
	Blown fuse	Check and replace motor protection fuse.
Liquid leaks from the machine.	Damaged suctionhose.	Replace hose.
	Chip basket is full.	Empty chip basket.
	Manhole cover is open	Close manhole cover properly.
	Delivery tube ball valve is open.	Close delivery tube ball valve.
	Changeover valve position improper.	Check changeover valve position according to the operation performed.
Machine performance has decreased	Filter is clogged.	Clean/Replace it.
	Chip basket is full.	Empty chip basket.
	Leak in hoses.	Replace hoses.
	Worn gasket/seals.	Replace gasket/seals.

DO'S & DON'TS

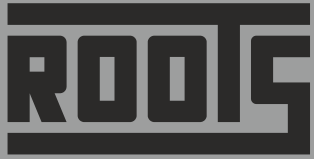


DO'S

- ✓ Power cord to be checked, if damaged, it should be replaced.
- ✓ Check the gasket for its proper seating in the filter assembly.
- ✓ Wheels should be cleaned & lubricated for free movement.
- ✓ Ensure the machine & wall socket have good earth connection.
- ✓ If the chip basket gets clogged, empty it.
- ✓ If motor gets tripped, check the reason and reset the same.
- ✓ Check the impeller exhaust pipe to prevent any blockage.
- ✓ Use appropriate valve setting for suction/discharge.
- ✓ Keep suction hose clean after use.
- ✓ Drain collection tank thoroughly after end of each shift.

DON'TS

- ✗ Do not use the machine, when the collection tank gets filled.
- ✗ Do not use the machine for vacuuming explosive, hot material and flammable liquids.
- ✗ Do not operate the machine with bare foot.
- ✗ Do not do any kind of service, except Roots authorized representative.
- ✗ Do not use the machine, if any abnormal sound is noticed in the suction turbine.
- ✗ Do not use the machine, if the filter is damaged.



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**