User Manual

V. BRØNDUM A/S
Item No.: A0800103

RONDA® 2600H

The Vacuum Cleaner for Factories and Warehouses with Detachable Container

07-2023

IMPORTANT!
Please read the manual before you use the vacuum cleaner.

USER MANUAL

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USER MANUAL

RONDA® 2600H

The Vacuum Cleaner for Factories and Warehouses

RONDA® 2600H is a Danish developed high efficiency vacuum cleaner for the collection of dry dust in large areas such as warehouses, factories, offices etc. with hard floors. RONDA® 2600H is equipped with a very flexible and wide high-capacity front nozzle, which is suspended in such a way that there is close contact to the floor all the time. Two (or three) powerful 1100 W suction motors ensure a high suction capacity, and the derivation of static electricity guarantees a good working environment.

- Large collection capacity
- Emptying from the bottom
- Teflon-coated multi-tube filter
- Continuous filter cleaning during operation
- Robust lightweight trolley frame
- Smooth-running wheels
- Low noise level
- Derivation of static electricity
- High-capacity front nozzle
- Special suspended front nozzle with close contact to the floor for optimized collection
- External filter cleaning valve
- HEPA-filtering

Technical Data

	2200 W		3300 W	
Suction motor, blow through	2x1100	Watt	3x1100	Watt
Suction motor, voltage	230	Volt	230	Volt
Suction capacity, max. (per motor)	2550	mmWc	2550	mmWc
Air flow, max. (per motor)	54	l/sec.	54	l/sec.
	194	m³/h	194	m³/h
Air flow, max. (measured, machine)	230	m³/h	270	m³/h
Noise level	<70	dB(A)	<70	dB(A)
Collection capacity (bag/container)	25/35	l	25/35	l
Filter area, multi-tube filter	0,8	m²	0,8	m²
Filter area, HEPA	2,2	m²	2,2	m²
Height	1120	mm	1120	mm
Length	770	mm	770	mm
Width	670	mm	670	mm
Weight without accessories	39	kg	41	kg
Cable length	15	m	15	m

Standard Accessories

RONDA® 2600H is supplied with a complete set of accessories including tubes, hose and all necessary nozzles.

The accessories can be re-ordered when using the following article numbers:

40 mm professionals set (antistatic)..... 80.43.4025

1. Plastic hose, antistatic 4 m..... 84.74.3806
2. Tube, consisting of two straight pcs. and one bent 80.52.2160
3. Crevice nozzle..... 80.34.4000
4. Round brush..... 80.34.4001
5. Floor nozzle B-370 ..... 84.38.3620

Machine Design and Description

RONDA® 2600H consists of the following main parts:

1) Motor top
2) Adapter ring
3) Collection container
4) Intermediate ring with multi-tube filter
5) Trolley frame
6) Front nozzle

Motor Top

The two (or three) powerful suction motors of the motor top are individually switched on with the two switches of the motor top.

The motor top is equipped with an integrated handle. Do not use this handle for carrying the whole vacuum cleaner.

The motor top is equipped with a HEPA-filter (84.67.5037).

The HEPA-filter is attached to the underside of the motor top and filters out the very fine particles. The HEPA-filter holds back 99.997% of all particles larger than 0.3 µm.

Adapter Ring

The Motor top is mounted on an adapter ring holding the multi-tube filter in the intermediate ring.

The adapter ring is equipped with a vacuum indicator [1] and a filter cleaning valve [2].

The vacuum indicator indicates the negative pressure in the space above the multi-tube filter. This way, you can read on the vacuum indicator whether the multi-tube filter is blocked and needs a cleaning. The cleaning is carried out by means of the filter cleaning valve. Also see the section about filter cleaning during operation.

Collection Container

The collection container can easily be removed if you disengage the container with the handle (emptying from the bottom).

The total collection capacity is 35 l (volume).

Multi-Tube Filter

The fine dust is held back in the collection container where a large Teflon-coated multi-tube filter (84.67.1114) will clean the air.
The multi-tube filter is a “Dust Class M” filter and has been approved by the German test institute BIA.
The multi-tube filter has a filter surface of 10,000 cm^2 and is mounted on springs, which gives a self-cleaning effect during operation.

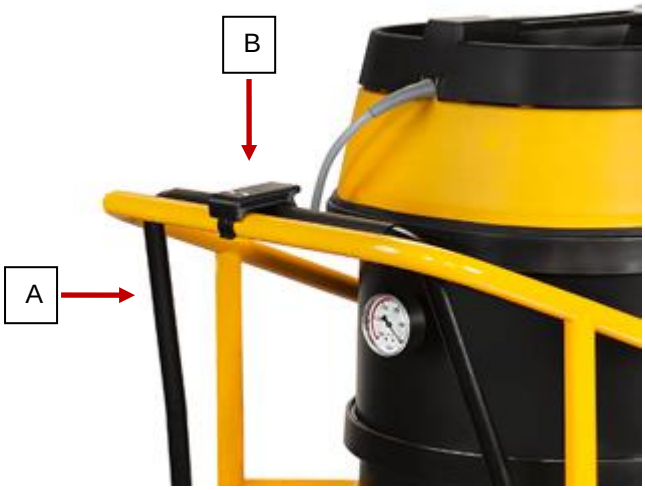
Trolley Frame

The collection container and intermediate ring are placed in a solid trolley frame with revolving front wheels and large rear wheels. The machine is moved by means of the big push handle.

Front Nozzle

The wide front nozzle is suspended so that it can be adjusted. The precise distance above the surface of the floor is adjusted by means of the adjusting screws on top of the wheels of the front nozzle.

Function of the Front Nozzle



It is possible to lift the front nozzle from the floor by pulling the black handle [A] near the steering grip.

This is practical, especially when passing over door steps or vacuuming larger pieces of dirt, which would otherwise be pushed in front of the nozzle.

By means of the clip holder [B], the handle can be fastened to the steering grip in order to keep the front nozzle in lifted position.

You can re-order the front nozzle on item number 80.31.0008. Replacement brush strips: 85.46.2003 (2 pcs. = 1 pair).

Scope of Application

RONDA® 2600H is a vacuum cleaner according to DS/EN 60335-2-2 and CEI/IEC 60335-2-69 and may only be used as such.

RONDA® 2600H must not be used for collecting fluids or moist dust.

RONDA® 2600H is not approved and must not be used to collect flammable, explosive, poisonous or other dust, fluids or gasses hazardous to health.

RONDA® 2600H may be used in dry environments only and must not be used or stored under moist or wet conditions outside or inside.

NOTE: Machines equipped with a vacuum indicator may not be used for suction from tools, but only for suction of deposited dust (cf. EN60335-2-69 Annex AA 22.AA.205).
The indicator must show when the air velocity falls below 20 m/s, corresponding to the requirement for an extractor. But extractors must have an acoustic (ISO 7731) or a visual (ISO 11428) alarm function.
If the machine is used for extraction, it must be done in combination with a risk assessment (Risk Analysis) - as well as clear, documentable instructions from the working environment/safety organisation.

USER MANUAL

NB:

The user manual is to ensure a secure operation of the vacuum cleaner, and to ensure that the user is in no way uncertain as to the use. The manual must be stored near the vacuum cleaner.

Does any uncertainty arise as to the use of the vacuum cleaner or the material collected, the work should be stopped until all questions have been cleared.

Pictures and drawings are for illustrative purpose and will make the understanding of the manual easier. The pictures shown may therefore be different from the actual product.

Safety Precautions

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
Children should be supervised to ensure that they do not play with the appliance.

- The machine is **NOT** approved for collection of flammable, explosive, poisonous or extremely health hazardous dust, fluids or gasses.
- DO NOT USE THE VACUUM CLEANER WITHOUT A PROPER GROUND CONNECTION.
- This vacuum cleaner is designed to be used with a ground connection, in an installation with HFI or HPFI relay. The user is responsible for ensuring that the wall outlet is grounded. The ground connection of the plug must NOT be removed.
- The appliance must be emptied after use.
- The user must ensure that the appliance is adjusted to the task and that regulatory requirements are met.
- When collecting dust hazardous to health you must use a filter bag, and disposal must comply with the legal requirements for material (closed container, plastic bag etc.).
- Avoid damaging the supply cord. When replacing the supply cord, only use an original supply cord (see the spare parts list). V. BRØNDUM A/S, an authorized V. BRØNDUM A/S dealer or an equally qualified person must carry out the replacement in order to avoid danger. Regularly check the mains connection for damage, such as fissures or ageing, and if damage is found, the supply cord must be replaced before further use.
- Before any repair or maintenance operations on the appliance – also cleaning – the plug must be removed from the power supply.
- The mains socket of the appliance is to be used only for the purposes specified in the user manual.
- This appliance is intended for commercial use, e.g. in hotels, schools, hospitals, factories, shops, offices and rental businesses.
- **Before use**, operators should be provided with information, instruction and training for the use of the appliance and the substances for which it is to be used, including the safe method of removal and disposal of the material collected.
- For user servicing, the appliance must be dismantled, cleaned and serviced, as far as is reasonably practicable, without causing risk to the maintenance staff and others. Suitable precautions include decontamination before dismantling, provision for local filtered exhaust ventilation where the appliance is dismantled, cleaning of the maintenance area and suitable personal protection.

- The manufacturer, or an instructed person, shall perform a technical inspection at least annually, consisting of, for example, inspection of filters for damage, air tightness of the appliance and proper function of the control mechanism. On class H appliances the appliance filtration efficiency should be tested at least annually, or more often, according to national requirements. The test method that may be used for the verification of the appliance filtration efficiency is given in AA.22.201.2. If the test will not be passed, it must be repeated with a new main filter.
- When carrying out service or repair operations, all contaminated items, which cannot be satisfactorily cleaned, are to be disposed of. Such items shall be disposed of in impervious bags in accordance with any current regulation of the disposal of such waste.
- The upper part of the motor top is a non-dust proof compartment, and when cleaning, the covers of this compartment are removed by loosening the screws fixing the covers.
- **IMPORTANT! The vacuum cleaner must not be started when the covers are removed.**
- **IMPORTANT! The motor top must not be covered when the appliance is in use.**

Does the safe use or maintenance of the appliance raise any questions; do not hesitate to contact either your dealer or V. BRØNDUM A/S.

General Safety Instructions

When using electrical equipment the necessary safety precautions must be taken in order to avoid the risk of fire, electrical shock and damage to persons. The below safety instructions are to be read and followed when the vacuum cleaner is being used.

1. Keep the working area clean. Slippery and greasy surfaces increase the risk of accidents.

2. Be aware of the surroundings. Do not expose the vacuum cleaner to rain. Do not use the vacuum cleaner in moist or wet surroundings. Do not use the vacuum cleaner near flammable gasses or liquids.

3. Protect against electrical shock.
   Avoid bodily contact with earthed building parts, such as radiator, water pipes and the like and also electrical appliances with their own earth connection.

4. Keep children and unauthorized persons away from the work place.
   Do not let unauthorized persons touch the vacuum cleaner or the supply cord. All unauthorized persons should be kept at a distance.

5. Put the vacuum cleaner away, or make it ready for transport after use.
   Keep the vacuum cleaner in a dry place and inaccessible to children.

6. Do not use force.
   Do not use force when operating the vacuum cleaner. Do not step on the hose, or the electrical cord.

7. Choose the correct tool, accessories for the task.
   Do not use badly proportioned or light tools for heavy tasks. Do not use tools for anything they are not intended for.
8. Choose suitable working clothes.

9. Personal protective equipment.
   Put on eye and/or ear protection, if necessary. Put on respirator in dusty environments.

10. Protect the electrical cord.
    Never carry the vacuum cleaner by the electrical cord. Do not remove the plug from the socket by pulling the electrical cord. Keep the electrical cord away from heating sources, oil and sharp edges.

11. Choose a safe working position so that there will be no risk of falling in the hose and cord.

12. Keep the machine and equipment in good repair.
    Keep the vacuum cleaner clean and dry and follow the instructions of the chapter about maintenance.

13. Cut off the electricity supply when the vacuum cleaner is not in use.
    Remove the plug from the socket before maintenance, repair and when the NPU is not in use.

14. If extension cords are used out of doors, they must be approved for this.
    If extension cords are used, the following guidelines must be observed.

Length of cord in metres	Cross section	
	<16A	<25A
Up to 20 m	Ø1.5mm²	Ø2.5mm²
20-50 m	Ø2.5mm²	Ø4.0mm²

15. Show attention and be rested.
    The vacuum cleaner must not be used, if the user is tired, sleepy or sick or under the influence of alcohol or drugs / medicine.

16. Check for damage.
    Check the vacuum cleaner for damage. Check that the shields etc. have been properly fastened. Check the electrical switches, and have an authorized service mechanic replace them, if they are damaged. Do not use the vacuum cleaner, if it cannot be started and/or stopped at the switch.

Guidelines regarding Disposal of the Machine

The product you have purchased is subject to Directive 2002/96/EC of the European Parliament and the Council of the European Union on waste electrical and electronic equipment (WEEE) and should not be disposed of as unsorted municipal waste. Please utilize your local WEEE collection facilities in the disposition of this product and otherwise observe all applicable national requirements.

Mode of operation

When the suction motors are turned on, the air is drawn through the appliance collecting the dust particles near the front nozzle.

The dust particles are drawn through the front nozzle by means of the high airflow and are transported through the suction hose to the collection container.

In the collection container the air is led towards the bottom of the container where the heavy particles will settle.

The very light particles are led by the airflow towards the multi-tube filter mounted in the intermediate ring. The air is drawn through the filter, which will hold back the dust particles.

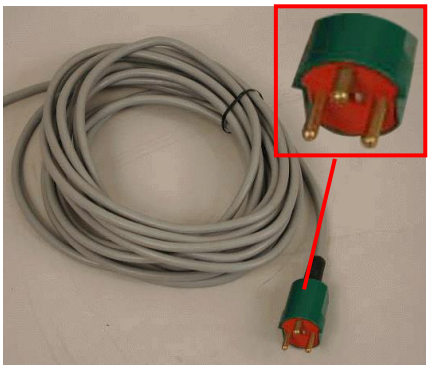
The airflow is drawn through the HEPA-filter, which will hold back the very fine dust particles.

Finally the exhaust air is filtered by the noise reduction foam of the motor top, after which the purified air will leave the machine through the crevice under the yellow motor top.

IMPORTANT: Do not cover the motor top, when the machine is operating.

Derivation of Static Electricity

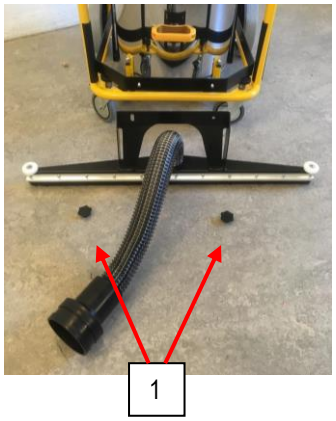
When collecting dry materials and dust, static electricity may be generated in for instance the suction hoses and tubes.

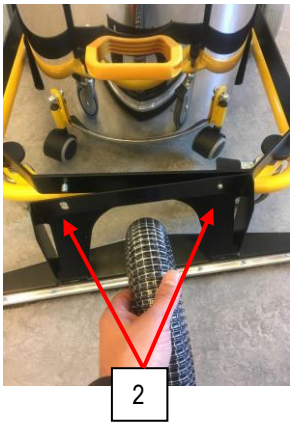


RONDA® 2600H is earthed through the earth connection of the cabling. Therefore, it is very important that the appliance is connected to a power supply with reliable connection to earth (Active protection against indirect touch).

Use and Mounting of the Front Nozzle

- Unpack the RONDA® 2600H and check that all the parts ordered are present.
- Mount the front nozzle onto the lifting handle:





- The front nozzle is mounted with the two enclosed screws [1]
- The fitting of the nozzle has two oblong holes for adjusting the angle and height of the nozzle [2]
- Tighten the screws when the correct angle and height is found [3].

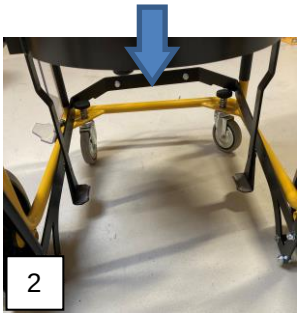
In order to ensure an optimum suction it is important that the brushes or the rubber lips of the front nozzle are adjusted so that they just touch the surface of the floor. The fine adjustment of the height of the front nozzle above the surface of the floor is made by means of the adjusting screws of the wheels of the front nozzle.

- Fasten the suction hose to the front nozzle.
- Place the hose coupling in the container coupling at the front of the machine.

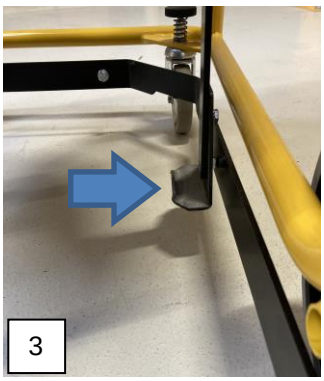
Mounting the Lifting Handle for the Front Nozzle (if not already mounted from the factory)


1

1) Remove the container
2) Push the lifting handle in place from the back of the machine [1]
3) The front of the lifting handle must be placed above the trolley frame [2].


2

NB:
Make sure that the front of the lifting handle is placed above the trolley frame [2] and on the outside of the container bearing [3].


3

Push the lifting handle forward.

The upper part of the lifting handle must be on the inside of the steering grip [4].
The front of the lifting handle, where the nozzle is to be mounted, must be placed at the top side of the trolley frame and the wheel assembly [2] [5].


5


4

Pull the lifting handel at the steering grip -

- and place the bushings into the tube of the wheel assembly.

IF NOT ALREADY MOUNTED

Screw, socket, disc, and compression spring are mounted on the thread of the front wheel.
This is used for adjusting the height of the brush above the floor.

Safety Check before Use

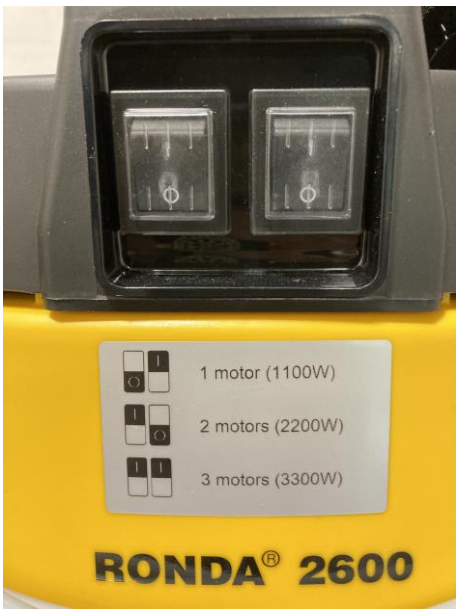
- Before connecting to the power supply it must be checked that the plug and the cord are undamaged. If the cord or the plug is damaged, a professional must make the replacement.
- Make sure that the voltage and current of the power supply correspond with the data on the data plate of the appliance.
- The plug must be removed from the power supply before any repair or maintenance operation – also cleaning.
- Before you start the vacuuming you must make sure that the machine is equipped with the right filters for the task in question. If any doubt, please contact the dealer.
- The machine is connected to the power supply with a reliable earth connection.
- If there are any questions as to the use, safety or construction of the appliance, do not hesitate to contact your dealer or V. BRØNDUM A/S.

REMEMBER: Always get information about the disposal of waste and about the rules in force for the materials in question.

RONDA® 2600H is now ready for operation.

The collection and the use are described in details on the following pages.

Start-up and Collection of Dry Dust



When the appliance has been correctly assembled and connected, you can start it by pressing the switches on the motor top. The two (or three) powerful suction motors have separate switches.

You can move the vacuum cleaner during operation on the large wheels. The revolving front wheels facilitate the manoeuvring of the machine. The accessory set with hose, tubes and nozzles can be used for cleaning the inaccessible places that the front nozzle cannot reach.

The hose is attached to the container coupling on the front of the appliance and assembled with the tubes and the nozzle chosen.

The floor nozzle is suitable for the collection of dust and materials from large even surfaces. The nozzle is equipped with brushes and wheels, which make sure that the nozzle is conveyed over the even surface in an optimal way.

Eventually, the brushes will be worn, which will consequently reduce the efficiency of the nozzle.

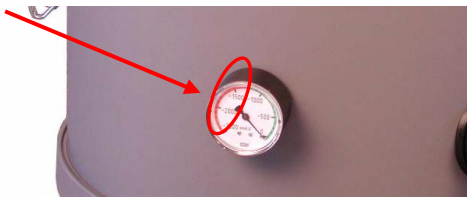
Adjust the wheel height by using the knob of the nozzle to ensure that the brushes only just touch the floor.

Vacuum Indicator and Filter Cleaning during Operation

The vacuum indicator placed on the adaptor ring of the motor top measures the air pressure inside the appliance during operation. The vacuum indicator is placed on the back of the appliance so that it is visible to the operator during operation.

If the multi-tube filter is blocked by fine particles, the air pressure inside the appliance will drop. This can be read on the vacuum indicator.

If the pointer of the vacuum indicator goes into the red section, it is an indication of a too low air velocity in the hose and the tube, and the multi-tube filter should therefore be cleaned. The multi-tube filter can be cleaned during operation, see next page.



NOTICE:
The vacuum indicator of the RONDA® 2600H is calibrated for correct indication, when the appliance is used with its standard accessories (40 mm). Using hoses or other accessories with a smaller dimension, the vacuum indicator will indicate too high a value. If you want guarantee for sufficient air velocity in the tubes and hoses, it is recommended to clean the filter, and if necessary to empty the appliance, if the pointer of the vacuum indicator enters the red section.

The multi-tube filter can be cleaned during operation by means of the cleaning valve, which creates a “chock effect”. The cleaning process is described below:

- Remove the hose from the front nozzle or the equipment connected.
- Block the suction by means of the plug.

Vacuum will now be formed inside the appliance.
By this, the springs of the multi-tube filter will contract a little.

- Pull the ”lid” of the cleaning valve. (A regular pull; not a tug).
- When the spring power overcomes the vacuum, the valve will open with a ”puff”.

In order to equalize the pressure difference in the vacuum cleaner and the pressure outside the vacuum cleaner, air will flush backwards through the multi-tube filter and reject possible accumulations (“back flush”).

In this way the multi-tube filter will be efficiently cleaned and the air flow re-established. The effect of the cleaning can be seen on the vacuum indicator – if not, the HEPA-filter may be blocked.

Repeat the process if necessary. (2-3 times should remove even the most stubborn dirt.)

NB:
The vacuum indicator on 3-motor machines will indicate too high, when the machine is operated with all three motors and Ø38 mm hose and accessories. The reason is that the hose diameter is too small to handle the air flow from three motors. The machine will “suffocate” because of the inner resistance of the hose.

Emptying

RONDA® 2600H collects the material directly in the collection container.

It is advisable to clean the filters before emptying the container (see the section about filter cleaning).

If the appliance has been used immediately before, it is recommended to wait a few minutes with the emptying, so that the fine dust can fall to the bottom of the collection container.

Lift up the black handle at the bottom of the appliance in order to remove the container.

The collection container is released from the packing and will be lowered to the floor.

Now the container can be rolled out.

To mount the container it is rolled under the machine until it is caught by the edge at the front of the appliance.

The handle is pressed down, and the grippers will catch the container and lift it up to the correct position.

RONDA® 2600H comes with a fiberboard container insert which is used if you want to collect into a plastic bag.

Item numbers for re-ordering:

Container insert incl. 2 pcs. plastic bags	84.64.9987
Plastic bag 600x1000x0,1 mm (25 pcs.)	84.64.9990

Cleaning and Maintenance

The appliance must not be connected to the power supply during cleaning or maintenance. The appliance must always be emptied and cleaned after use and must never be left with dust in the container. (Risk of self-ignition).

IMPORTANT!
The appliance must not be connected to the power supply during cleaning or maintenance.

The easiest way to clean the appliance is as follows:

- The multi-tube filter is cleaned as required. See the description under “Filter Cleaning during Operation”.
- Wipe the outside of the appliance with a dry or slightly wet cloth.

Maintenance of the Motor Top

The motor top is made of maintenance-free parts and needs no daily maintenance, apart from external cleaning and inspection of electrical cords and plugs to ensure that these are not damaged.

The easiest way to clean the motor top is with a damp cloth. Never aim jets of water directly at the motor top.

In order to avoid unscheduled stops, it is recommended that the electrical parts are inspected annually by an authorized technician.

It is recommended to have an authorized service center inspect the brushes of the suction motor after approx. 800 working hours, and if necessary, replace them. In this way the life of the suction motor is prolonged.

Replacing the Filters

In General

When replacing the filter, the necessary precautions to protect the environment and the respiratory passages of the operator must be taken. This protection must be carried out with due regard to the nature of the use to which the vacuum cleaner has been put and to whatever hazard is posed by the dust on the surface of the filter.

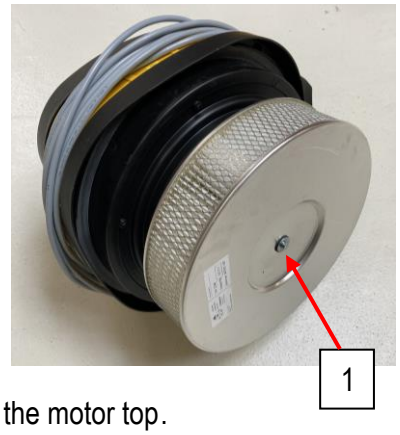
Check and Replacement of the Multi-Tube Filter (84.67.1114)

The multi-tube filter is made of a very robust filter material and has a very long life span. However, the surface of the filter will gradually be worn by all the large and small particles, which are held back. Consequently, the filter must be checked for holes and fissures on a regular basis. Even small holes in the filter material will allow particles to penetrate the filter and continue through the filter and the motor, unless the appliance is equipped with a HEPA filter.

- Loosen the container clips of the motor top and remove the motor top.
- Place the motor top on a dry, clean and flat surface.
- Check the top surface of the multi-tube filter for dust particles. If you can see dust particles there, it is a sign of a damaged and worn multi-tube filter.

If the multi-tube filter is damaged, or if there are holes in surface of the filter, the multi-tube filter must be replaced. If the multi-tube filter is replaced, the HEPA-filter should be replaced at the same time. See the following page.

Replacement of the HEPA-Filter (84.67.5037)



- Dismount the motor top of the suction unit and place it upside down with the HEPA filter upwards.
- Loosen the bolt [1] holding the HEPA-filter. The filter can now be removed and disposed of.
- Mount the new HEPA filter on the motor top and make sure that the contact face of the filter is undamaged and clean.
- Tighten the bolt gently so that the filter fits tightly to the contact face in the motor top.

Disposal of Filters

When you dispose of the used filters you must make sure that this is done according to the national regulations.

If the appliance has been used for the collection of material demanding safety equipment, you must also use safety equipment when replacing the filters.

It is recommended always to put on gloves and mask, when the appliance is emptied and maintained.

Trouble Shooting

If the appliance does not collect the material in a satisfactory way:

- The suction hose, tube or nozzle may be blocked.
  Stop the appliance and remove the blocking.

- The collection container may be filled to overflowing.
  Stop the appliance and empty the container. See the section: "Emptying".

- There might have been a leak during the assembly of the motor top.
  Start the appliance, and block the suction hose. You will normally be able to hear a possible leak. Loosen the container clips of the motor top, remount the motor top, and lock the container clips again.

- The multi-tube filter may be blocked.
  Clean the multi-tube filter as described in the section: "Filter Cleaning during Operation".

- The HEPA-filter may be blocked.
  Replace the filter as described in the section: "Replacing the Filters".

V. BRØNDUM A/S

DECLARATION OF CONFORMITY

CE

V. BRØNDUM A/S
Sadolinsvej 14
DK – 8600 Silkeborg

hereby declares that the following product:

Electrically operated industrial vacuum cleaner,

Model:
RONDA® 2600H
(-S, og variants)

has been designed and produced in accordance with the basic requirements and other relevant conditions of the following directives:

Machinery Directive (Directive 2006/42/EF)
Low Voltage Directive (Directive 2014/35/EU)
EMC Directive (Directive 2014/30/EU).

The compatibility has been achieved by use of the following standards:

EN 60335-1
EN 60 335-2-69
EN 60 312
EN 61000-3-2

EN 61000-3-3

EN 55014-1
EN 55014-2
EN 62233:2008

Silkeborg, June 2022

Kennet Vallø
Product Manager

Service and Repair

Service and repair are free of charge within the warranty period (invoice must be presented) under the following conditions:

- The defect is caused due to defects in materials or defective design. (Defects due to normal wear, misuse or insufficient maintenance are not covered by the warranty.)

- No repair attempts have been made by parties other than V. BRØNDUM A/S or authorized service centres approved by V. BRØNDUM A/S.

Service and repair free of charge include spare parts and the cost for related working hours.

The appliance must be delivered to the factory through a dealer of the V. BRØNDUM A/S organization, or sent carriage paid to:

V. BRØNDUM A/S
Sadolinsvej 14
DK - 8600 Silkeborg

Tel. (+45) 8682 4366
Fax (+45) 8680 3363

E-mail: v@broendum.com
www.broendum.com

Subject to changes.