



USER MANUAL

V. BRØNDUM A/S
Item No.: A0800109



RONDA 350

Heavy Duty Wet Cleaner with Pump

RONDA® 350

Heavy Duty Wet Cleaner with Pump



RONDA® 350 is a compact and very robust cleaner with built-in pump, and the cleaner is developed for simultaneous suction and disposal of liquids. The machine is suitable for suction and carrying of large quantities of both clean and dirty water. The machine is ideal for disaster services, in the construction trade, and for removal of cooling water in connection with diamond drilling/cutting etc.

- Heavy Duty submersible pump with overload circuit breaker
- Continuous carrying of liquids (>130 l/min)
- Washable polyester filter class C
- Handy, compact and easy to transport
- Strong trolley frame
- Powerful suction motor
- Low noise level
- Retains even fine particles
- Integrated tube holding device
- Foam reduction possible (optional extras)
- Vacuum monitoring possible (optional extras)

Technical Data

Suction motor by-pass	1200 Watt
Suction motor voltage	230 Volt
Suction capacity	2400 mmWc
Air volume, max.	60 l/sec
	216 m ³ /h
Suction power, max.	353 W
Noise level, 1 m	72 dB(A)
Noise level, 4 m	62 dB(A)
Collection capacity	35 l
Height	1000 mm
Length	520 mm
Width	420 mm
Weight without accessories	35 kg

Pump Data:

Voltage	230 V
Power	650 W
Max. lifting height	9 m
Flow at lifting height:	
6 m	120 l/min
3 m	225 l/min
0 m	290 l/min
Liquid temperature	35 °C
Liquid temp. max. briefly	60 °C
pH-value	6-8

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Standard Accessories



40 mm Professional's set	80.33.4016
Plastic hose with coupling, 4 m	84.54.3809
Round brush.....	80.34.4001
Crevice tool	80.34.4000
Adapter for upholstery nozzle.....	80.34.4002
Upholstery nozzle.....	80.34.3604
Floor nozzle V-370	84.38.3621
Tube	80.52.2160

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Construction

RONDA® 350 has been constructed as a compact wet cleaner for suction and carrying of large quantities of clean and dirty liquid. Below the construction and the mode of operation of the machine will be described.

Motor Top with Suction Motor and Washable Filter



The powerful suction motor of RONDA® 350 is placed in the motor top.

The motor top is provided with a washable filter of the fine dust class "C". The filter retains the fine, dried up particles, which will not leave the machine together with the liquid sucked up. At the same time the filter will protect the suction motor and retain the particles, which may otherwise damage the turbine blades of the suction motor.

Adapter Ring with Float Valve



The motor top is mounted on an adapter ring and is attached with two container clips.

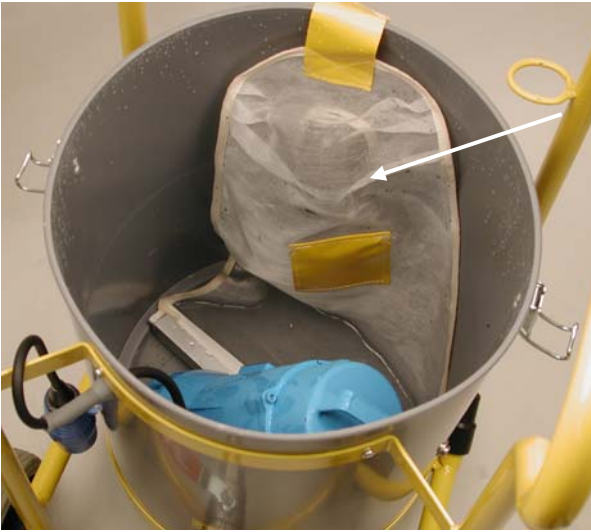
The float valve is placed under the adaptor ring and consists of a semi-closed holder and the valve itself. The float will place itself on the surface of the liquid sucked up.

If the liquid will rise to a critical level, the float will cut off the airflow to the motor. In this way the suction motor is protected against penetration of water.

When the float has cut off the airflow, the motor must be switched off immediately.

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Filter Sack



The filter sack retains the large particles, if any, in the liquid sucked up. The filter sack is attached to the container coupling and is supported by the yellow strip placed between the collection container and the adapter ring.

The filter sack is provided with a small pocket for anti-foaming agent. (Optional extras).

Always use the filter sack during suction, as the sack retains the large particles, which might damage the blade wheel of the pump.

Submersible Pump



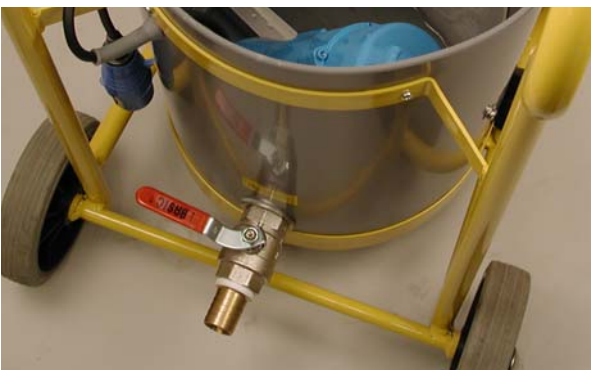
RONDA[®] 350 has a powerful build-in submersible pump for the carrying on of the liquid sucked up.

The submersible pump is firmly secured in the collection container.

The submersible pump is equipped with an electric overload circuit breaker, which will cut off the electricity supply to the pump if the pump is overloaded.

The circuit breaker is reset on the small button on the side of the power outlet for the pump on the back of the motor top.

Drain Cock



The liquid sucked up can be pumped out through the drain cock placed between the rear wheels of the trolley frame.

The drain cock is placed in such a way that the machine can lie on "its back" in connection with cleaning of the collection container. The slope has the effect that the water will run out of the container automatically.

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Application

RONDA[®] 350 is a wet cleaner according to DS/EN 60335-2-2 and CEI/IEC 60335-2-69 and may only be used as such. RONDA[®] 350 may be used for the suction of warm, clean and dirty liquids. RONDA[®] 350 must not be used for the suction of hot, acid or basic liquids and liquids with a high concentration of wearing particles. Suction of strongly wearing particles will shorten the lifetime of the machine.

RONDA[®] 350 is not approved for the suction of inflammable, explosive, poisonous or other kinds of dust, liquids or gases, which are hazardous to health. RONDA[®] 350 is not approved according to CEI/IEC 60335-2-69 Annex AA concerning suction of materials hazardous to health.

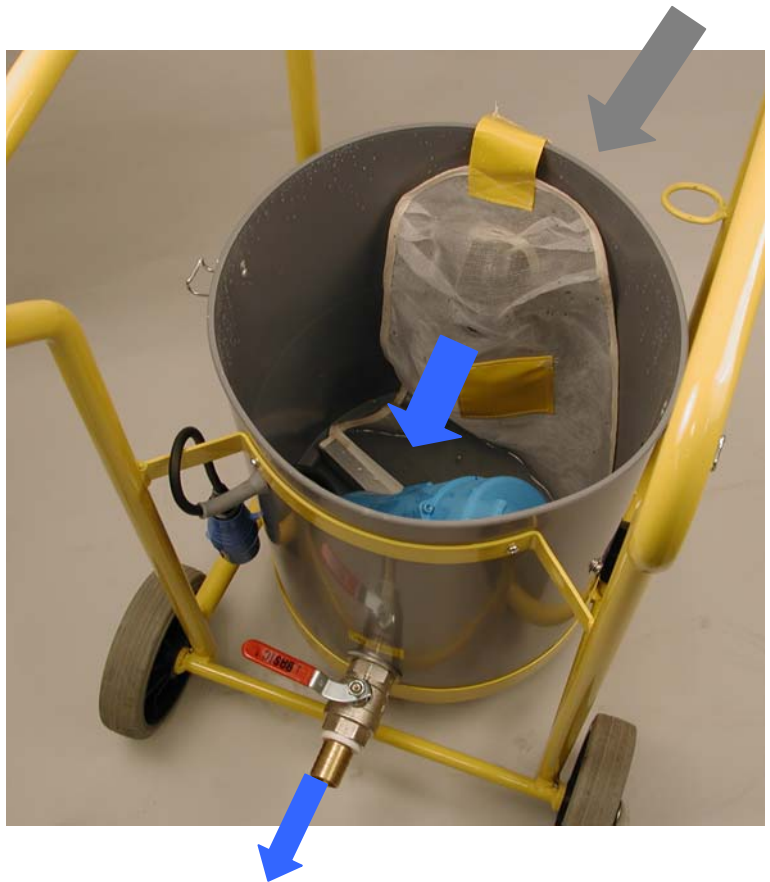
Mode of Operation

When the liquid is sucked into the machine, the liquid is roughly filtered through the filter sack. Particles larger than the mesh of the filter sack (approx. 1,5 * 1,5 mm) will stay in the filter sack, and the liquid will run on into the collection container. The washable filter under the motor top of the machine will hold back the small particles, which are not bound in the liquid.

If the machine is used as an actual carrier of liquid, the built-in submersible pump simultaneously pumps the liquid on. The liquid will leave the machine through the drain cock and the drain hose mounted (optional extras). The built-in submersible pump has been dimensioned so that it is able to pump away more liquid than the machine is able to suck up.

If the built-in submersible pump is not running during suction of liquids, the liquid level will rise until the float valve under the motor top will cut off the passage of air.

When the float valve cuts off this passage, the machine must be stopped as soon as possible, and the collection container has to be emptied or drained.



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Safety Precautions

- The machine is not approved for inflammable, explosive, poisonous or other kinds of dust, liquids or gases, which are hazardous to health.
- The user must make sure that the machine is adjusted to the task, and that the requirements of the authorities are met.
- Avoid damaging the electric cord. In case of replacement of the electric cord a thinner cord than the original cord must not be used. The replacement has to be done by a professional.
- Besides use in the household this machine may also be used commercially, e.g. in hotels, schools, hospitals, factories, shops, offices and rental businesses.
- **WARNING:** If foam or liquid comes out of the machine, switch off the current immediately.
- **Guidelines in Connection with 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.

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.

Before Taking into Use

- Check that plug and cord are undamaged before plugging into the socket. If the cord or the plug is damaged, a professional must replace the parts.
- Check that the power supply corresponds with the voltage and fuse given on the appliance's type label.
- Before any repair or maintenance of the machine – also cleaning – the plug must be removed from the power source.
- Before commencing vacuum cleaning, check that the appliance is fitted with the right filters for the task.
- If any doubt should arise as to the use, safety or construction of the appliance, please contact the dealer or V. BRØNDUM A/S.

Assembling

- Unpack the RONDA[®] 350 and check that all the parts ordered are present.
- The 3 parts of the tube are assembled, and the floor nozzle or another nozzle is mounted on the tube. Fasten the rubber coupling of the suction hose to the tube and put the other connection piece of the suction hose into the container coupling.
- Check that the collection container is empty, and check that the filter sack is placed correctly on the container coupling and also that it is supported by the yellow slip.

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- Connect the machine to 220 V mains voltage with a reliable earth connection (Active protection against indirect contact).

Start and Suction of Liquids

When the machine has been correctly assembled and connected, it can be started on the switch of the motor top. The suction motor of the machine is started on the one switch, and the pump is started on the other switch. When the suction motor or the submersible pump is switched on, the light of the switch will be put on. The switch of the pump is marked "PUMP".

Suction of Liquid from even Surfaces

Suction of liquids can be done with or without water nozzle. The water nozzle is suitable for suction of liquid from even surfaces. When the nozzle passes over the wet, even surface, the liquid is sucked up into the collection container by the strong air current, and the surface is left almost dry.

Suction of Large Quantities of Liquid or Liquid from Containers

Suction of large quantities of water can be done without water nozzle. In connection with this kind of suction you must be aware that the RONDA[®] 350 has a maximum effective suction height of approx. 2 m, when the suction hose is completely filled with liquid.

If liquids are to be sucked up at a greater suction height, the suction hose must not be full. This can be done if the tube or the suction hose is not submerged in the liquid, but only sucks up a mixture of air and liquid from the surface of the liquid. The mixture of air and liquid is adjusted – depending on the suction height – so that no liquid will run out of the tube or the hose. If the liquid runs back from the tube or the hose, a larger quantity of air must be added – and vice versa.

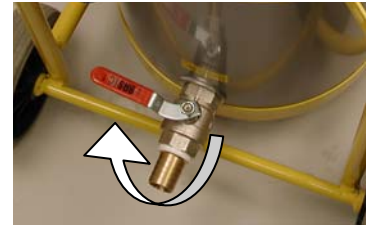
Suction in Collection Container or Simultaneous Carrying on

RONDA[®] 350 can be used for suction of liquids in two ways. The liquid can either be collected in the collection container, or the liquid sucked up can also simultaneously be carried on to drain or the like by means of the submersible pump built-in. Below the two methods are described more precisely.

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Suction into Collection Container:

- Check that the drain cock is closed. The handle of the cock must be across the longitudinal direction of the drain cock.
- Check that the switch of the submersible pump is in "OFF" position (no light in the switch).
- Start the suction motor by pressing the switch of the suction motor in "ON" position. The light in the switch is on.



Now the suction can begin.

When the collection container is full, the float valve will cut off the air current to the suction motor, and the suction will stop.

- Turn off the suction motor immediately in order not to load it unnecessarily.
- Empty the collection container. (See the following paragraph).

Emptying the Collection Container:

- Move RONDA[®] 350 to the place where the liquid sucked up can be drained off.
- Open the drain cock, and let the liquid sucked up run out of the collection container. In order to ensure an efficient emptying the RONDA[®] 350 can be leaned backwards on the rear wheels so that the last quantity of liquid is drained off.

If you want a quicker emptying, the built-in submersible pump can be used. Check that the drain cock is open, and that the pumping out can be done safely, before the pump is started.

See the more precisely description in the following paragraph concerning "Suction and Simultaneous Carrying".

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Suction and Simultaneous Carrying:

! Note:

Open the drain cock before the pump is started.

Stop the pump before the drain cock is closed.

- Check that the drain hose (optional extras) is solidly secured to the connection piece of the drain cock, and that the drain hose is properly led to an approved drain. The drain system of RONDA[®] 350 is dimensioned to a 5/4" drain hose. In a stiff drain hose there is the least resistance, and the flow of liquid consequently the largest. If you use a coiled drain hose, the pump must "use its strength to open the hose", which reduces the flow of liquid.
- Check that the drain cock is open. The handle of the cock must point in the longitudinal direction of the drain cock.
- Turn on the suction motor on the switch at the motor top of the machine and suck up a certain quantity of liquid, before the pump is started. In this way you can be sure that the pump will not work without liquid. This will spare the blade wheel of the submersible pump.

Now the suction of liquid and the simultaneous carrying on can begin.

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After having finished the suction the following must be done:



1. Switch off the pump



2. Close the drain cock



3. Switch off the suction motor

Note: The machine must be cleaned every time it has been used! See the paragraph: Cleaning and Maintenance.

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Emptying the Filter Sack:

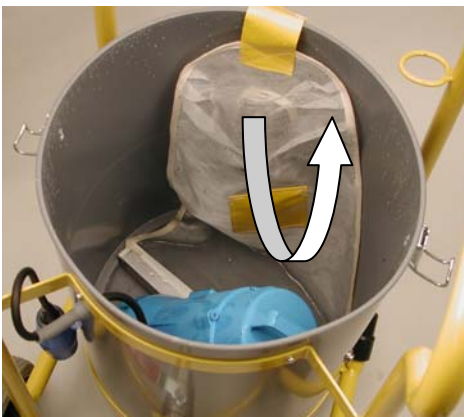
Empty the filter sack, which retains sludge and large particles, as needed.

Loosen the two container clips on the sides of the collection container and dismount the motor top with adapter.

Now the motor top with adapter ring can be removed from the trolley frame.



Taking out the Filter Sack:



Detach the filter sack from the connection piece of the container and lift the sack out of the collection container.

Empty the filter sack by pulling the bottom rail to the side. Now the particles and sludge collected can be shaken out of the filter sack.

Clean the filter sack after having emptied it. The easiest way to do this is to rinse it with plenty of water.

Before remounting the filter sack over the connection piece of the container, the bottom rail is pushed back again.

In connection with the emptying of the filter sack it should be checked, whether there are holes in the filter sack. If there is a hole, the large particles will not be retained and might damage the impeller of the pump.

Suction of Dry Dust

RONDA® 350 has not been developed for suction of dry dust and can only be used for suction of small quantities of dry dust if plenty of liquid is sucked up at the same time.

Dry dust can damage the submersible pump, if the pump is started without sufficient liquid in the collection container. If, however, a small quantity of fine, dry dust has been suspended in a large quantity of liquid, the dust can be pumped away together with the liquid without damaging the pump.

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If RONDA® 350 is to be used for suction of dry dust, perhaps together with a small quantity of liquid, a 10-layered collection and filtration bag (Item No. 82.64.0050) must be used. The filtration bag will retain the particles, and the small quantity of liquid sucked up, if any, will be sucked through the bag.

Vacuum Monitoring with "VACUMATIC" (Optional extras)

RONDA® 350 can be offered with a built-in "VACUMATIC" – vacuum monitoring". VACUMATIC will constantly monitor the low-pressure, with which the motor works. If the air current to the motor is blocked through a long time, the current to the motor will be cut off, in order not to overload the motor. The motor can be switched on again, if it is switched off and then on again.

If RONDA® 350 is equipped with VACUMATIC, a LED will be placed above the switches of the motor and the pump. The LED will flash during normal operation, when the low-pressure will occasionally exceed the low-pressure set.



If the suction hose is blocked through a long time, or if the float valve has blocked the air current because of a full collection container, VACUMATIC will cut off the current to the motor after some seconds, and the LED will give out light constantly.

Remove the blocking in the hose / empty the collection container and turn off the machine on the switch. Now VACUMATIC has been reset, and the machine can be restarted on the switch for the motor.

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Cleaning and Maintenance

The machine must not be connected to the mains supply during maintenance and cleaning.

The machine must be cleaned very time it has been used. If the machine is left with dirty water, there is a risk of formation of germs in the rotten water. Dried up sludge in the blade wheel of the submersible pump might furthermore damage the pump when it is subsequently started.

The easiest way to clean the machine is as follows:

- Let the machine suck up and pump on some clean water for a few minutes so that any sludge and impurities in the blade wheel of the submersible pump and in the collection container will be rinsed away.
- Loosen the two clips of the liquid container and remove the motor top and adapter ring.
- Take out the filter sack and rinse away the sticking particles and other impurities with clean water.
- Lay down the machine with the container coupling turning upwards and rinse the liquid container with plenty of clean water. The trolley frame is constructed in such a way that the water will automatically run out of the liquid container.

Maintenance of the Motor Top

The motor top is made of maintenance-free parts, and the daily maintenance is therefore limited to external cleaning and inspection of electric cords, switches, plugs and sockets for damages.

The easiest way to clean the motor top is with a moist cloth. Do not aim any jets of water direct at the motor top.

To avoid stop in operation it is recommended that an authorized technician inspects the electric parts once a year.

It is recommended that an authorized service centre checks the brushes of the suction motor after approx. 800 hours of operation and changes them if necessary. This will prolong the life of the suction motor.

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Change of Filters

Generally

When changing the filters you must take the necessary precautions in order to protect the environment and the respiratory passages of the operator. This protection depends on the tasks, for which the vacuum cleaner has been used, and the dangerousness of the dust and sludge on the surface of the filters.

Change of Filter Sack (Item No. 84.67.4025)

The filter sack is made of a robust filter material and the seams have been strengthened with a strong band. The filter sack has a very long life, but will be worn in the course of time. It must regularly be checked whether the filter sack and filter material are undamaged and without holes. If there are holes in the filter material, the filter sack will not be able to hold back any large particles, which may damage the pump.

Change of Washable Filter (Item No. 84.67.5011)

1. Loosen the two container clips holding the motor top, dismount the motor top and place it so that there is access to the filter.
2. Loosen the bolt holding the filter. Now the filter can be removed and disposed of.
3. Make sure that the contact face of the filter is undamaged and clean before attaching the new filter to the motor top.
4. Fasten the bolt so that the filter fits closely to the contact face of the motor top. Don't fasten the bolt too much.



Disposal of Filter Sack and Washable Polyester Filter

When disposing of the worn-out filter sack or the used polyester filter you must make sure that this is done in accordance with the requirements of the Authorities of the Environment.

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Troubleshooting

If the Machine does not Suck Satisfactorily:

- The suction hose, tube or nozzle may be blocked.
Stop the machine and remove the blocking.
- The collection container may be filled to overflowing. The float valve is designed to protect the suction motor by blocking the air supply to the motor when the collection container is filled with liquid.
Stop the machine and empty the container of liquid.
- The filter may be blocked.
Take out the filter sack and rinse it with lots of clean water, so that any sticking particles will be removed.

Dismount the washable filter (See the paragraph about change of washable filter). Rinse the filter with large quantities of clean water by conducting the water into the filter in the opposite direction of the normal flow direction of the air.

If the Submersible Pump does not Empty the Machine:

- Clean the pump casing, discharge connection and drain cock.
- Check the hose connections, including whether the drain hose has been bent, which will reduce the flow of liquid.
- Check that the cord of the submersible pump is connected to the outlet at the motor top.
- Check whether the drain hose is blocked.
- The built-in overload circuit breaker may be activated. This may be due to a stone or the like having blocked the pump. The filter sack, which is to be used during suction, normally retains stones and large impurities. During normal operation the overload circuit breaker is not activated. Remove the blocking from the blade wheel of the pump and push the small button of the circuit breaker in again. The button is placed on the side of the outlet for the pump.



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Service and Repair

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

- The defect is caused by a design fault or defective material. (Normal wear and tear, misuse and insufficient maintenance are not covered by the guarantee).
- No repair attempts have been made by parties other than V. BRØNDUM A/S, or authorized service centres approved by V. BRØNDUM A/S for guarantee repairs.

Service and repair free of charge includes the replacement of defective parts and also the related costs.

The machine is handed in through the dealers of V. BRØNDUM A/S or sent direct carriage paid to:

V. BRØNDUM A/S
Sadolinsvej 14-16
DK-8600 Silkeborg

Tlf. 8682 4366
Fax 8680 3363
E-Mail: v@broendum.com
www.broendum.com

V. BRØNDUM A/S reserves the right to introduce changes without further notice.