



22.300

Vacuum Filtration Station

Manual

KC Denmark A/S

Research Equipment



Limnology • Oceanography • Hydrobiology

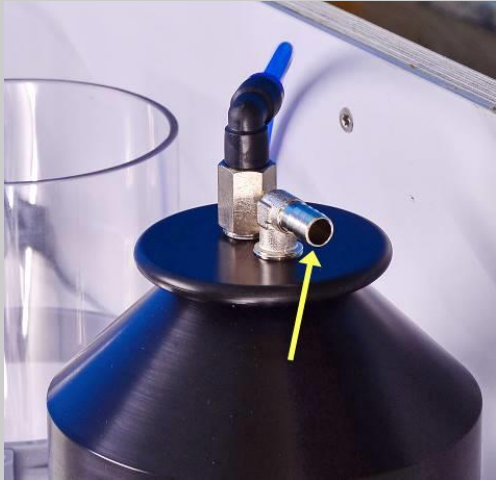


Vacuum Filtration Station, 7 x 3 L


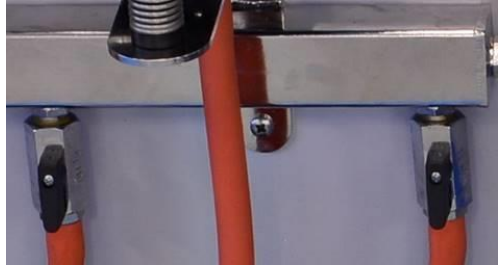


Caution

KC Denmark A/S is not, and cannot be held, responsible for any damage(s) made to equipment or to operators who ignore safety precautions or because of misuse or wrong operation.

Item	Preparation	
1	<p>It is important, that the filtration system is mounted in a solid position on a wall, a stable rack or similar.</p> <p><i>Consider that the max. weight can get close to 90 kg (the filtration system itself + 21 L of fluid + the contents of the excess fluid chamber).</i></p> <p>Removing the bottles from the plastic holders requires some force so a reliable mounting is mandatory. Use (expansion) bolts and washers having an appropriate size.</p>	
2	<p>Install the vacuum pump close to the system and ensure you have a proper ground connection for the pump's power supply. If preferable you may extend the tubing for the vacuum pump. Please refer to the pumps manual, pg. 5 and 6, for more details and maintenance of the pump itself.</p>	

<p>3</p>	<p>Connect the vacuum pump to the reservoir on the vacuum filtration.</p> <p>It is very important that the excess fluid chamber between the pump and the filtration is empty. If not, the pump is filled with liquid and is damaged. During use of the system, check regularly if the chamber must be emptied.</p>	
<p>4</p>	<p>Insert the upper tubes, one by one. Inserting the bottles demands some pressure; attach the small, horizontal clip to secure the tube in the holder.</p>	
<p>5</p>	<p>Insert the support screen and then add a piece of Ø47 mm filter paper.</p>	

6	While holding the unit against the upper bottle, insert the spring-loaded clamp fixing the units together.	
7	Using the valve beneath the square steel tube, you can reduce or turn off the vacuum individually for every sample tube. Leave the valves in horizontal (closed) position.	

How to use the vacuum system		
8	<p>Do not use alcohol, as it will damage the bottles.</p> <p>Pour the liquid to be filtrated into the upper bottles. Start the vacuum pump and open the required valves as per item 7.</p>	
9	Once the separation has finished, turn off the vacuum pump and close the valves.	
10	Remove the bottles and the filter paper for closer examination.	

Storing and maintenance		
11	<p>Do not use alcohol for cleaning, as it will damage the bottles.</p> <p>Wash the bottles with fresh water and mild soap and let dry before mounting on the rack.</p> <p>Disassemble the filter holders, clean and let dry.</p>	

Operating Instructions

Vacuum Pump Set-Up

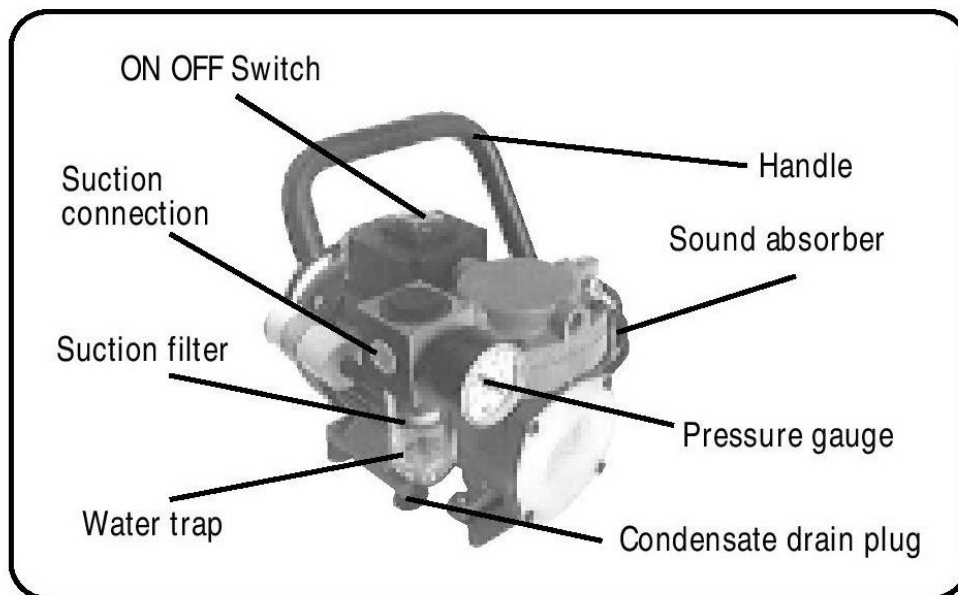
Read safety information leaflet before using the vacuum pump. If you are uncertain about any aspect of using this equipment contact your RIDGID Distributor. This pump is designed for use with Ridgid core drilling machines. We strongly recommend that it NOT be modified and/or used for any application other than for which it was intended

Technical data

Operating voltage	230V, AC, 50Hz
Maximum Vacuum	85 % (- 850 mbar)
Current	0,6 A
Protection rating	IP 54
Power	125 Watt
Weight ca.	4,5 Kg
Free Air Flow capacity	24,6 l/min.
Dimensions (LxBxH) ca.	230x195x220mm

Before use

The vacuum pump may only be operated using a properly grounded socket. Check the line cord and any extension leads for damage.
Check hosepipe for damage! Check voltage corresponds to voltage marked on nameplate.



Use

Connect suction hose. Connect power and switch on.
Set up the vacuum pump in such a way that the inlet and exhaust can circulate well.
Keep the ventilation slots on the case free and clean.

Caution: Suction of inflammable, fluid and/or explosive medias or other dangerous materials is strictly prohibited.

After use

- switch off the main switch
- pull out the power plug
- let the pressure out by disassembling the suction hose at the device . As a result any condensation can leak out. (Hold the pump diagonally)

Cleaning and care

- remove plug from socket before attempting any maintenance.
- check connecting lead regularly for damage.
- keep the cooling air openings clean.
- check the suction hose for damage.
- allow no oil or other product into the airway of the vacuum pump .

The preliminary filter which is in the condensate vessel has to be cleaned regularly and blown out with compressed air. If it is very dirty the filter cartridge must be changed.

Damages that result through inappropriate treatment, overload or normal wear are not covered by warranty.

Maintenance and repair

Please note all repairs, maintenance and testing should only be carried out by qualified electrical specialists.

Maintenance and repair works are only to be carried out by an approved Ridgid service station.

Troubleshooting

Defect	Cause	Remedy
Not working	<ul style="list-style-type: none">- Mains plug not connected- Power cable is defective- Power source failure	<ul style="list-style-type: none">- Connect to mains- Replace power cable- Correct mistake in power source
Pump switches off after a time	<ul style="list-style-type: none">- Pump becomes too hot- Suction filter clogged up- Piston damaged	<ul style="list-style-type: none">- Check suction and exhaust filters- Clean filter- Repair the pump
Not sufficient suction	<ul style="list-style-type: none">- Suction filter dirty- Suction hose kinked- Piston damaged or blocked	<ul style="list-style-type: none">- Clean or replace filters- Check hose- Repair the pump
Engine does not turn or makes unusual noise	<ul style="list-style-type: none">- Engine defective- Piston damaged	<ul style="list-style-type: none">- Repair the pump- Repair the pump

Safety Regulations

KC Denmark A/S is not, and cannot be held, responsible for any damage(s) made to equipment or to operators who ignore safety precautions or because of misuse or wrong operation.

An expert maintenance technician fully familiar with the attendant hazards must only do all maintenance, inspection and repairs.

When working with the unit in areas, which are difficult to access or hazardous, ensure to take adequate safety precautions for the operator and others in compliance with the provisions of law on health and safety at work.

Replace worn component with original spare parts.

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