Sololift2 WC-1, WC-3

Installation and operating instructions



Other languages



Sololift2 WC-1, WC-3 http://net.grundfos.com/qr/i/97771615



be think innovate

Original installation and operating instructions

These installation and operating instructions describe Grundfos Sololift WC-1 and WC-3.

Sections 1-3 give the information necessary to be able to unpack, install and start up the product in a safe way.

Sections 4-8 give important information about the product, as well as information on service, fault finding and disposal of the product.

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Read this document before installing the product. Installation and operation must comply with local regulations and accepted codes of good practice.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given



supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

1. General information

1.1 Symbols used in this document

1.1.1 Warnings against hazards involving risk of death or personal injury

DANGER



Daue

Indicates a hazardous situation which, if not avoided, will result in death or serious personal injury.

WARNING



Indicates a hazardous situation which, if not avoided, could result in death or serious personal injury.

CAUTION



Indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

1.1.2 Other important notes



If these instructions are not observed, it may result in malfunction or damage to the equipment.



A blue or grey circle with a white graphical symbol indicates that an action must be taken.



A red or grey circle with a diagonal bar, possibly with a black graphical symbol, indicates that an action must not be taken or must be stopped.



Tips and advice that make the work easier.

2. Receiving the product

2.1 Transporting the product

WARNING

Crushing hazard

 Death or serious personal injury
Stack maximum two pallets together under transportation.

3. Installing the product



Installation must be carried out by specially trained persons and according to local regulations.



Do not pull or lift the product by the power supply cable.

3.1 Mechanical installation

The product must be accessible for maintenance and repair.

The product must be placed in a frost-free room to prevent the pumped liquid from freezing.

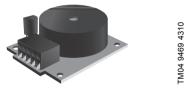
Make sure that all external pipes are adequately insulated.

The outlet pipe must be made of rigid material, such as copper, or of rigid PVC with solvent-welded joints.

To prevent the transmission of vibrations to buildings, make sure that the pipes are thoroughly fixed and that fittings cannot move and are not in contact with building parts.

An alarm device for acoustic alarm in case of malfunction or high level in the tank is available as an accessory (noise level 75 dB(A)).

Product number: 97772315.





Extension pipes between the toilet and lifting station must not be longer than 150 mm due to the increased risk of clogging.

3.2 Electrical connection

DANGER

Electric shock



 Death or serious personal injury
The protective earth (PE) of the power outlet must be connected to the protective earth of the product. The plug must have the same PE connection system as the power outlet.

DANGER Electric shock

4

Death or serious personal injury

 The installation must be fitted with a residual current device (RCD) with a tripping current less than 30 mA.

DANGER

poles.

Electric shock

Death or serious personal injury



The product must be connected to an external main switch with a minimum contact gap of 3 mm (0.12 inch) in all



Electrical connection must be carried out by an authorized electrician.

Make sure that the product is suitable for the supply voltage and frequency available at the installation site.

The thermal switch cuts out the motor in case of overheating and cuts it in again automatically after cooling.

4. Product introduction

4.1 Product description

The WC-1 and WC-3 are small, compact automatic lifting stations suitable for pumping domestic wastewater and sewage off places in private dwellings where wastewater cannot be led directly to the sewer by means of a natural downward slope.

If you are away for a long period (e.g. holidays) we recommend that you turn off the water supply to the toilet served by the unit.

This product is a domestic unit. Toilets connected to this unit can be used like any normal toilet, and require minimum maintenance. The unit will operate automatically as soon as the required level of water enters the tank.

Only the disposal of toilet paper, faecal matter and wastewater will be covered by warranty. Any damage due to foreign bodies such as cotton, condoms, sanitary towels, wet wipes, food, hair, metal, wood or plastic objects, will not be covered by warranty. Solvents, acids and other chemicals can also cause damage to the unit, and will invalidate the warranty.

4.2 Intented use

The product is only suitable for pumping wastewater from a cabinet shower, bidet and/or washbasin as well as sewage from a toilet.

The product is only suitable for domestic use.

Applications according to EN 12050-3.

Not for public and heavy commercial or industrial use, only a limited number of users.

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Installation with direct connection to a toilet and in the same room as sanitary appliances.

A second toilet must be available above the backflow level.

The product must be fastened to the floor to prevent uplift and turning.

4.3 Pumped liquids

Domestic wastewater and sewage containing toilet paper and faeces.

Ordinary liquids for cleaning of the appliances connected. pH value: 4-10.

The product is designed for flush volumes of 4, 6 and 9 litres. A 4-litre flush is permissible only if the amount of solids in the pumped liquid is small.



The product must not pump harsh chemicals or solvents. See the quick guide.

5. Servicing the product

Always use original accessories from Grundfos to ensure safe and reliable operation.

WARNING

Electric shock

Death or serious personal injury

Before starting any work on the product, make sure that the power supply has been switched off and that it cannot be accidentally switched on.



Maintenance and service must be carried out by specially trained persons and according to local regulations.



If the power supply cable is damaged, it must be replaced by the manufacturer, the manufacturer's service partner or similarly qualified person.

For service kits, see www.product-selection.grundfos.com.



The product must be thoroughly cleaned before it is returned for service. Otherwise, the warranty will be void.

5.1 Service documentation

Service documentation is available at www.product-selection.grundfos.com.

If you have any questions, please contact the nearest Grundfos company or service workshop.

5.2 Maintenance

The lifting station does not require any special maintenance, but we recommend that you check operation and pipe connections at least once a year.

Change the carbon filter once a year. See section *5.4 Service instructions*.

5.3 Adjustment of run time

The default setting ensures proper operation in most pipes. If the pipes are particularly long or short, it may be necessary to adjust the run time.

For a guide to adjusting the run time, see www.product-selection.grundfos.com.

English (GB)

5.4 Service instructions

Thanks to the product design, service is easy in case of malfunction or a blocked pump.

Impeller or grinder stuck

- 1. Disconnect the power supply.
- 2. Unscrew the plug in the cover.
- Insert a screwdriver (min. 110 mm) through the plug hole and into the slot of the shaft end. Turn the shaft right and left to free the impeller or grinder from dirt.
- Fit the plug and switch on the power supply to check if the impeller or grinder can rotate freely.

Operation by means of a power drill

If the product cannot be operated by electrical power, disconnect the power supply and empty the toilet and tank by means of a power drill.

Pressure switch pipe blocked

The pressure switch unit can be removed separately.

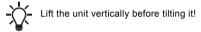
- If the water level in the tank is above the motor flange, disconnect the power supply and drain the tank by means of the drain hose (accessory).
- 2. Unscrew the cover.
- 3. Pull out the complete pressure switch.
- 4. Check and clean the pressure switch pipe. Make sure that the little tube in the top of the pipe has not become blocked while you have cleaned the pipe!
- 5. Lubricate the sealing area of the pressure switch for easier fitting.

Foreign body in the tank

CAUTION

Sharp element Minor or moderate personal injury - Beware of the sharp edges on the grinder. Wear protective gloves.

- 1. If the water level in the tank is above the motor flange, disconnect the power supply and drain the tank by means of the drain hose (accessory). See image 3.1 in the appendix.
- 2. Unscrew the cover.
- 3. Remove the four screws of the motor flange.
- Lift the motor flange to reduce the compression of the O-ring. Insert a screwdriver into the notch underneath the power supply cable and press it down.
- 5. Lift out the complete motor-pump unit by the handles.



6. Check and clean the tank and impeller or grinder.

Carbon filter

Replace the carbon filter once a year to ensure sufficient filter function.



Instead of using a carbon filter, Sololift can also be vented through a venting pipe. In this case a venting valve is needed. Product number: 98059587.

6. Fault finding the product

WARNING

Electric shock



Death or serious personal injury

 Before starting any work on the product, make sure that the power supply has been switched off and that it cannot be accidentally switched on.

See also section 5.4 Service instructions.

Fault		Ca	use	Remedy
1.	The motor does not start when the level in the tank reaches the start level.	a)	Supply failure.	Reestablish the power supply.
		b)	A fuse is blown. If a new fuse blows at once, either the cable or motor is faulty.	Replace the fuse. Measure the cable and motor. If the cable or motor is defective, replace the defective parts.
		c)	The impeller or grinder is stuck. The thermal switch has tripped.	Free the impeller or grinder, and wait until the motor is cooled down and the thermal switch has reset.
		d)	The pressure switch pipe is blocked.	Remove the pressure switch and clean the pipe.
2.	The motor hums but does not operate.	a)	The impeller or grinder is stuck.	Free the impeller or grinder and check that it can rotate freely.
		b)	The motor or capacitor is defective.	Replace the motor or capacitor.
		c)	The control board is defective.	Replace the control board.
3.	The motor runs continuously or at irregular intervals.	a)	Water is leaking from the inlet into the tank.	Check for leaking appliances.
		b)	Water is leaking back into the tank from the outlet pipe.	Check the non-return flap.
		c)	The pressure switch is defective.	Replace the pressure switch unit.
4.	The pump runs but does not deliver the rated flow rate.	a)	The pump or tank is blocked.	Remove the blockage.
		b)	There is an air pocket in the pump or the vent hole in the pump housing is blocked.	Check operation of the vent valve in the tank. Check that the carbon filter is not wet. Check that the vent hole in the pump housing is not blocked.
		c)	The outlet port or pipe is blocked.	Remove the blockage. Check the non-return flap.
5.	The lifting station evacuates slowly.	a)	The outlet pipe is too long or has an excessive number of bends.	Increase the outlet pipe size. Change pipes to reduce the number of bends. Change bends to soft bends.
		b)	The pump housing is leaky.	Replace the pump housing (service part).
		c)	The hydraulics or grinder is blocked.	Check and clean the hydraulics and grinder.
6.	Rattling noise from the lifting station, but water is evacuated.	a)	A foreign body is hitting the impeller or grinder.	Remove the foreign body.
7.	Odour from the tank.	a)	The carbon filter is contaminated.	Replace the carbon filter.

Fa	Fault		use	Remedy	
8.	Water from the shower or another appliance connected to the lower inlets drains off slowly. Backflow from the lifting station.	a)	The non-return flap in the inlet is stuck, it does not open or close sufficiently.	Check the non-return flap.	
		b)	The hydraulics or grinder is blocked.	Check and clean the hydraulics and grinder.	
		c)	The start level has changed.	Check and clean the pressure switch pipe.	
		d)	The inlet pipe diameter is too small.	Use a pipe with a larger diameter.	

7. Technical data

Supply voltage

1 x 220-240 V - 10 %/+ 6 %, 50 Hz.

Power consumption

Maximum 620 W.

Power factor

Cos φ 0.87 / 0.92.

Speed 2800 min⁻¹

Rated current

3.0 A.

Insulation class

Noise level < 70 dB(A) to 12050-2.

Flow rate Maximum 149 I/min.

System pressure

Maximum pump head: 8.0 m. Maximum system head: 6.0 m.



The system pressure must not exceed 6 m head to guarantee a sufficient drain of the connected sanitary appliances.

Supply cable

1.5 m, 0.75 mm² (H05VV-F-3G).

Net weight

7.3 kg.

Start and stop levels

Start level: 72 mm above bottom. Stop level: 52 mm above bottom.

Liquid temperature

Maximum 50 °C.

Ambient temperature

+5 °C to +35 °C.

Duty

S3 - 50 % - 1 min. (30 seconds on; 30 seconds off).

Marking



Approvals



8. Disposal of the product

This product or parts of it must be disposed of in an environmentally sound way:

- 1. Use the public or private waste collection service.
- 2. If this is not possible, contact the nearest Grundfos company or service workshop.



The crossed-out wheelie bin symbol on a product means that it must be disposed of separately from household waste. When a product marked with this symbol reaches its end of life, take it to a collection point designated by the local

waste disposal authorities. The separate collection and recycling of such products will help protect the environment and human health.



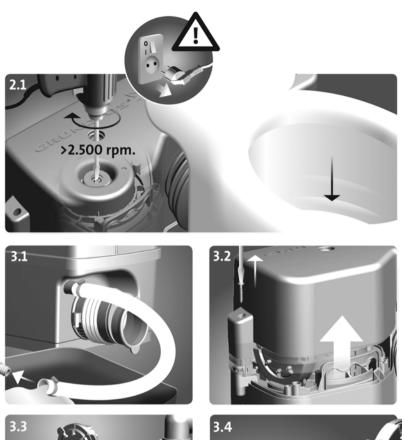


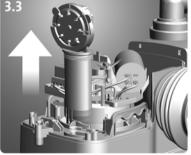




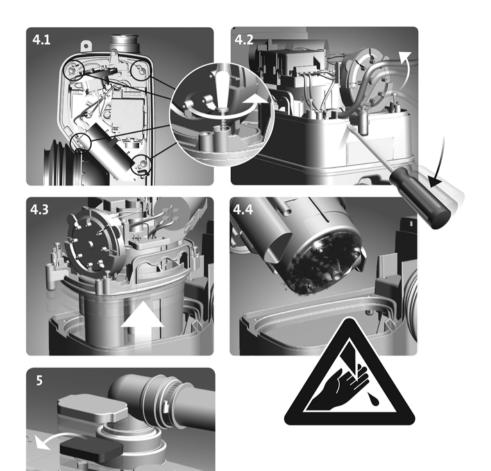












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