

Operation Manual

3/1 Macerator Waste Pump

50741

wiltec



Illustration similar, may vary depending on model

Read and follow the operating instructions and safety information before using for the first time.

Technical changes reserved!

Due to further developments, illustrations, functioning steps, and technical data can differ insignificantly.

Updating the documentation

If you have suggestions for improvement or have found any irregularities, please contact us.



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Even though, the WilTec Wildanger Technik GmbH has undergone biggest possible efforts to ensure that the operating manual is complete, faultless, and up to date, mistakes cannot be entirely avoided.

If you should find a mistake or wish to make a suggestion for improvement, we look forward to hearing from you.

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The most recent version of this manual in various languages can be found in our online shop via:

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To return orders for exchange, repair, or other purposes, please use the following address. Attention! To allow for a smooth execution of your complaint or return, it is important to contact our customer service team before returning the goods.

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Introduction

Thank you for purchasing this quality product. **To minimise the risk of injury we urge that our clients take some basic safety precautions when using this device. Please read the operation instructions carefully and make sure you have understood its content.**

Keep these operation instructions safe.

Safety regulations



CAUTION:

This device is not intended to be used by persons (including children) with limited physical, sensory, or mental capabilities or with a lack of experience and/or knowledge, unless they are supervised by a person responsible for their safety or have received instructions on the correct use of the device. Children should be supervised to ensure that they do not play with the device.

The macerator waste pump consists of a housing, a motor, and a pump. The pump is suitable for domestic sewage water and sanitary facilities. The macerator automatically switches the pump on and off depending on the liquid level.

Conditions of use

- The medium transported must not be colder than +2 °C and not hotter than +90 °C.
- The maximum head is 10 m.
- The maximum horizontal transporting distance is 100 m.

Technical data

Energy supply	230 V ~ 50 Hz
Motor power (W)	600
Temperature range (°C)	2–90
Weight (kg)	8.1
Max. delivery head (m)	10
Max. delivery width (m)	60 (according to DIN EN 12056–4)
Cable length (m)	100
Size (cm)	40 × 28 × 22
Acoustic level (dB (A))	45–60

Safety instructions



CAUTION:

- Perform a regular visual inspection of the device before use. Do not use the device if safety devices are damaged or worn. Never override safety devices.
- Only use the device in accordance with the intended use specified in these operating instructions.
- You are responsible for the safety in the work area.
- If the cable or the plug is damaged due to external influences, the cable must not be repaired! It must be exchanged for a new one. This work may only be carried out by a qualified electrician.



- The voltage of 230 V (50 Hz) AC stated on the nameplate of the device must correspond to the existing mains voltage.
- Never lift, transport, or fasten the device by the power cord.
- Make sure that the electrical plug connections are protected from flood and moisture. Pull out the power plug before working on the device.
- Avoid exposing the device to direct water jets.
- The operator is responsible for compliance with location-specific safety and installation regulations. If necessary, ask an electrician.
- The user must take appropriate measures to prevent consequential damage from flooding of rooms in the event of malfunctions on the device (e.g., installation of an alarm system, reserve pump, etc.).
- If the device fails, repairs may only be carried out by a qualified electrician.
- The device must never run dry or be operated with the suction line fully closed. The manufacturer's guarantee is void for damage to the device caused by running dry.
- The device must not be used to operate swimming pools.
- The device must not be installed in the drinking water circuit.
- The transport of aggressive liquids as well as of abrasive substances (e.g., sand) must be avoided in any case.
- The pump must be protected from frost.
- The pump must be protected against dry running.
- The device is not to be installed in absorbing wells or pump shafts.

 **WARNING:**

Read carefully all the safety guidelines and instructions. Non-compliance with the safety rules and regulations can lead to an electric shock, fire, and/or serious injury. Keep the instructions and the safety guidelines in a safe place in case you need them in the future.

Stability

- To ensure the stability of the macerator, the user should make sure that only organic toilet sewage water, water, and toilet paper are removed with the waste pump. The temperature of the pumped liquids should not exceed +90 °C in permanent operation.
- This pump must not transport flammable, gas-emitting or explosive liquids. It cannot be used for other fluids like fuels, cleaning agents and other chemical products!

 **Important:** Only toilet paper, urine and faecal matter may be thrown or left in the toilet. All other substances are to be thrown into the rubbish bin!

Please note that the waste water must only enter the lifting system WITHOUT PRESSURE!

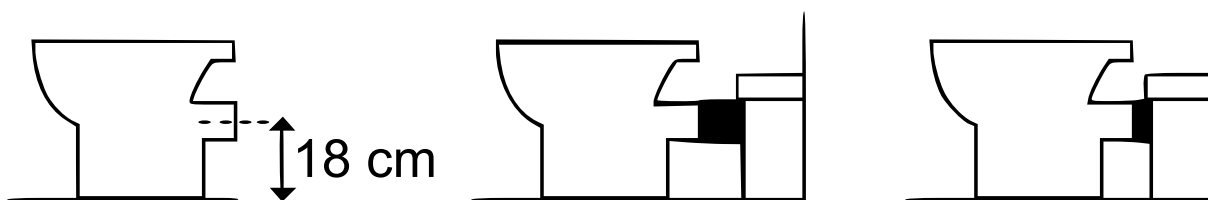
Note: Some of the accessories included are located inside the macerator unit upon delivery. Please remove the accessory bag before installation.

Installation

- The macerator is installed according to the EN-12056-4 directive.
- The unit can be operated on every standard toilet with a horizontal outflow. The midpoint of the horizontal drainage must comply with EU standard: 18 cm above the floor (Pipework: 18 cm above the ground according to FFB).

Important:

- **PRESSURELESS:** If a washing machine is connected to the macerator, the drainage pipe/hose must not be directly connected to the macerator but it must be led/coupled via a vented pipe system. If connected directly to the macerator, the collecting tank may crack, and this does **not** fall under warranty.
- We recommend that the installation and the leak test be carried out by qualified personnel. Please note the legal requirements!

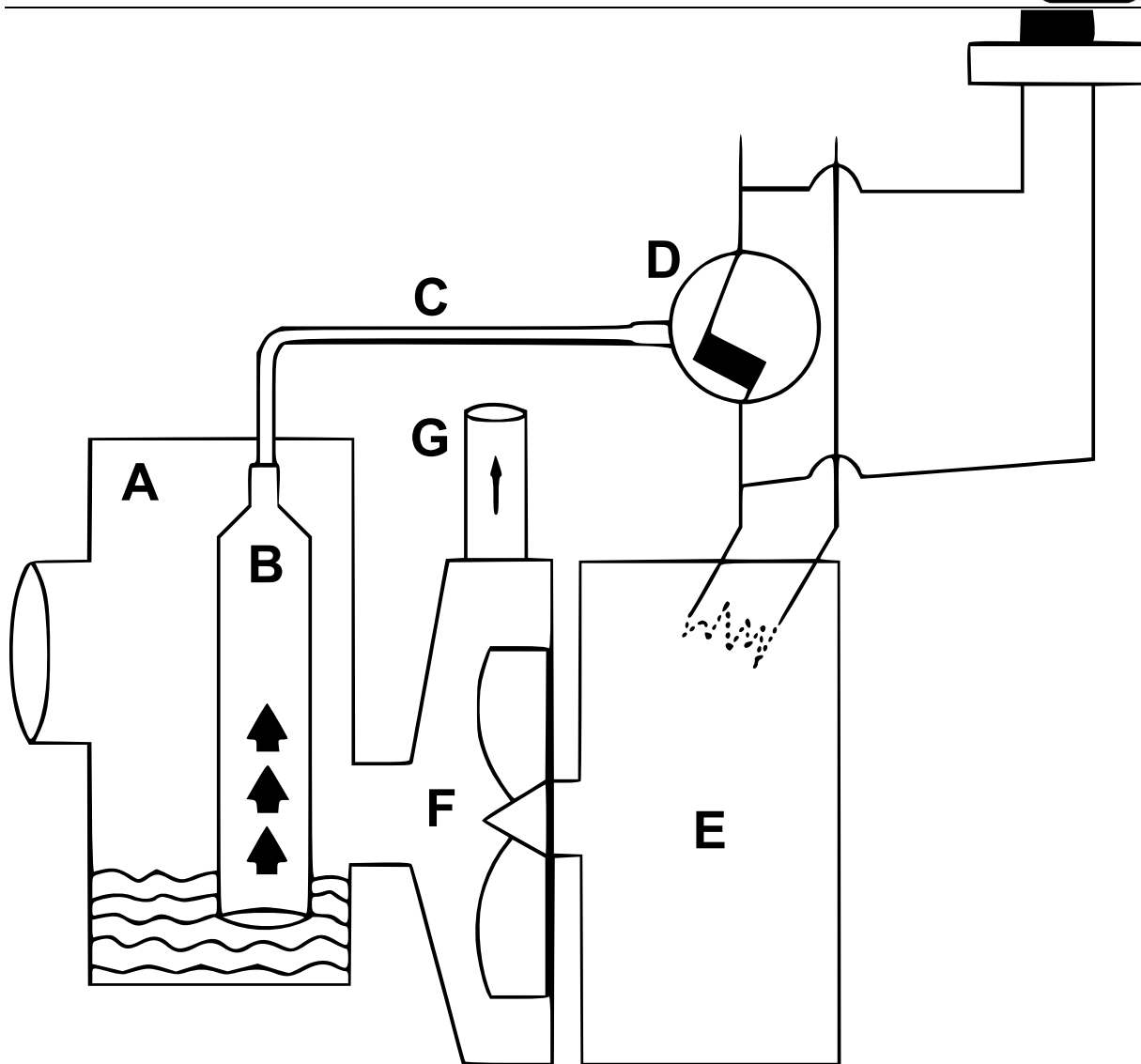
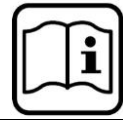


CAUTION:

Pay attention when installing the unit, the pump must not be mounted freely suspended from the pressure pipe or the power cable.

Functional principle

- The macerator comprises a tank that stores the waste water and an electrical pump which is automatically controlled and operated via a pressure switch **(D)**.
- The transporting function is activated when the flushing is operated, just like in the case of a normal toilet.
- The substances to be removed by pumping are collected in the tank **(A)**. The air chamber **(B)** measures the air pressure that flows through the pipe **(C)** in order to activate/operate the pressure switch **(D)**. The pressure switch starts the engine **(E)** that activates the turbine **(F)**. The sewage water is transported and removed through the outlet **(G)**.
- This mechanism is easy and the unit is made of high-quality materials. The operating principle is based on a proven concept.



Controlling components:

1 pressure switch

Mechanical elements:

- 1 electric motor
- 1 turbine

Controlling components and safety devices:

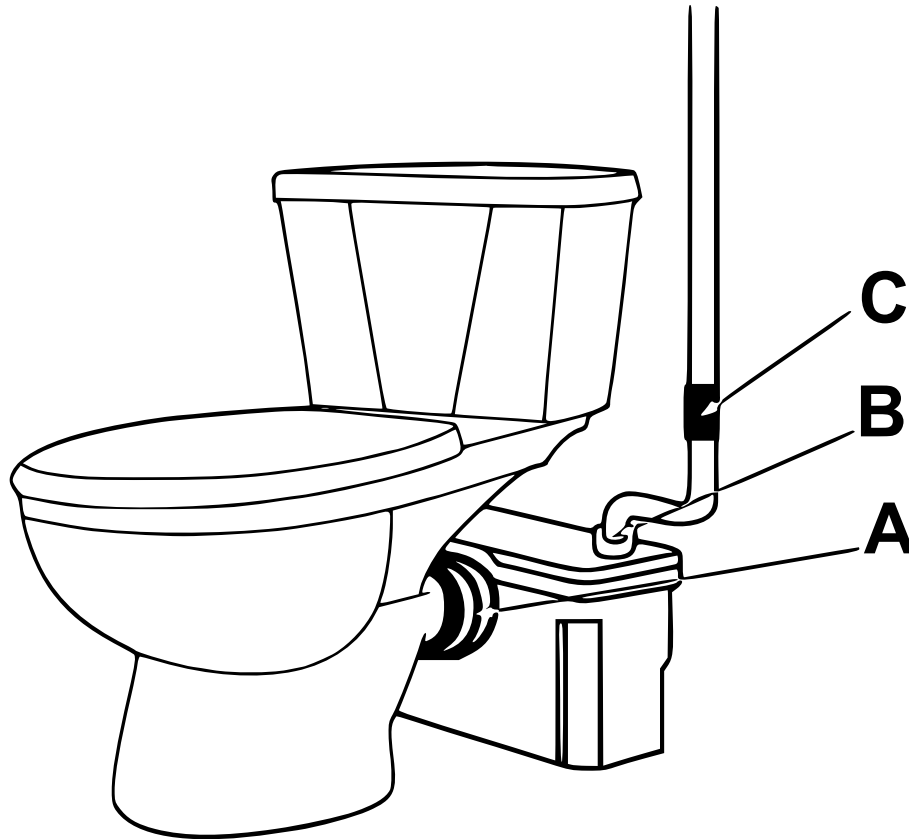
- 1 manual override switch
- 1 check valve

Evacuating toilets

- Connect the horizontal toilet bowl outlet with the pump system rubber cuff and stretch the connection with the enclosed clamp. Take care that you use a lubricant, if necessary, so that the rubber connection does not tear.
- Join the drain pipe with the rubber connection piece, the pipe should have a diameter of 40 or 32 mm. Seal the connection with the clamping piece.

Installation check of check valve

If the sewage water should be transported/pumped upwards, install the check valve as close as possible to the macerator.



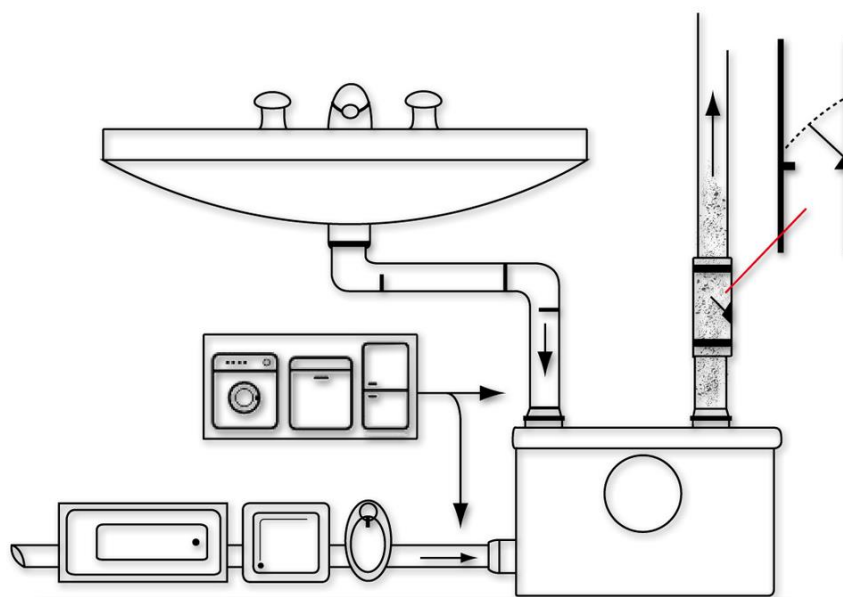
Evacuating toilets and other sanitary units

- Connect the discharge pipes of the other appliances to the rubber connectors provided and clamp with the pipe. For bath or shower waste water, check that the slope from the siphon has a gradient of at least 1 % (1 cm/m) so that the waste flows towards the macerator by gravity.
- If other appliances are connected along the discharge line near to the macerator, install check valves on their discharge pipes to prevent waste return. The slope of the horizontal parts of the discharge line must have a gradient of 1 %.

Inspecting the pressure switch

- Plug the pressure tap chamber located in the rubber tank, press it down to create pressure and listen if a click is heard which indicates that the motor has switched on. If there is no click, check if the air chamber of the pressure switch pipe nozzle does not leak. You can also trigger the pressure switch by blowing lightly into the transparent hose that leads to the pressure switch. When a click is heard, the switch switches and the motor must start. There must be **NO** water in the transparent hose and the pressure switch! Otherwise, dry the pressure switch or replace it.
- If the appliance is switched on, the motor should start running.
- Before performing this operation, check that the opening or inside of the pressure tap chamber are not blocked.

Installation options



For the lifting system to switch on when the sewage water is evacuated, the incoming sewage water line should have a gradient of at least 2–3 % and a height difference of at least 20 cm from the siphon to the entrance to the macerator.

Both are necessary so that the pressure switch in the macerator is actuated, the lifting system switches on and the water is pumped out.

Possible errors if this is not considered:

- The lifting unit does not pump out the water;
- there is always residual water in the pipes;
- there may be residual water in the shower tray.

Troubleshooting

This device is only suitable for removing faecal matter and toilet paper. Perhaps, other small constituents can be pumped; bigger constituents can clog the pump. This is the main reason for malfunctions that is encountered by our customer service.

The device works, but ...	Causes	Remedies
... is not powerful enough or too slow to discharge the waste.	Discharge pipes too long or fixed at a too high position	Recalibrate the pipes.
	Discharge pipe diameter too small	Recalibrate the pipes.
	Partial blockage	Actuate the pump with manual override switch. If the problem persists, the pump must be blocked; check the pump.
... emits a humming noise but does not discharge the waste.	Pump blocked	Check the pump.
	Check valve installed the wrong way	Reinstall it the right way round.



... starts running and discharging accidentally.	Check valve defect	Check the valve.
	Leak in the flushing tank that causes water to flow into the macerator and sets it running intermittently	Repair the leak.
... operates continually.	Vertical discharge without check valve	Install the check valve.
	Check valve defect	Check the valve.
	Pressure switch defect	Check the pressure switch.
... there is no humming noise.	Electrical connection defect	Check the connection.
	Pressure switch or motor defect or blocked	Press the manual override switch several times. If the device starts running, check the electrical connection of the pressure switch line. Pressing the manual override switch has no effect. Check the motor.

Detailed error descriptions and solutions

Residual water in the shower

For the lifting system to switch on when the sewage water is evacuated, the incoming sewage water line should have a gradient of at least 2–3 % and a height difference of at least 20 cm from the siphon to the entrance to the macerator.

Both are necessary so that the pressure switch in the macerator is actuated, the lifting system switches on and the water is pumped out.

Possible errors if this is not considered:

- The lifting unit does not pump out the water;
- there is always residual water in the pipes;
- there may be residual water in the shower tray.

Loud noises, engine not running or running hardly, water not evacuated

- These are the symptoms of a macerator blockage.
- If the system is clogged with toilet paper and faecal matter, it is sufficient in most cases to carefully rinse the system backwards with water. To do so, execute little water pressure on the macerator outlet, e.g., with a garden hose, so that the residues are flushed out of the pump body back to the macerator. Please make sure that no water pressure comes on the macerator collecting tank. Otherwise, the macerator pressure switch is damaged and the automatic activation / deactivation does not work properly any more
- With more severe obstructions / blockages by solid bodies that have jammed inside the pump body, it may be necessary to open the pump so that the solid bodies can be removed.
- In the event of strong impacts from the solid objects in the macerator, the motor bearings can even be damaged. In this case, the macerator motor must be opened and the bearing replaced. This error usually occurs after large solid bodies have been removed or rinsed out. The



macerator can then still be turned freely by hand, but as soon as you try to start the motor, it blocks and only hums.

- Rinsing the macerator does not require any technical knowledge.

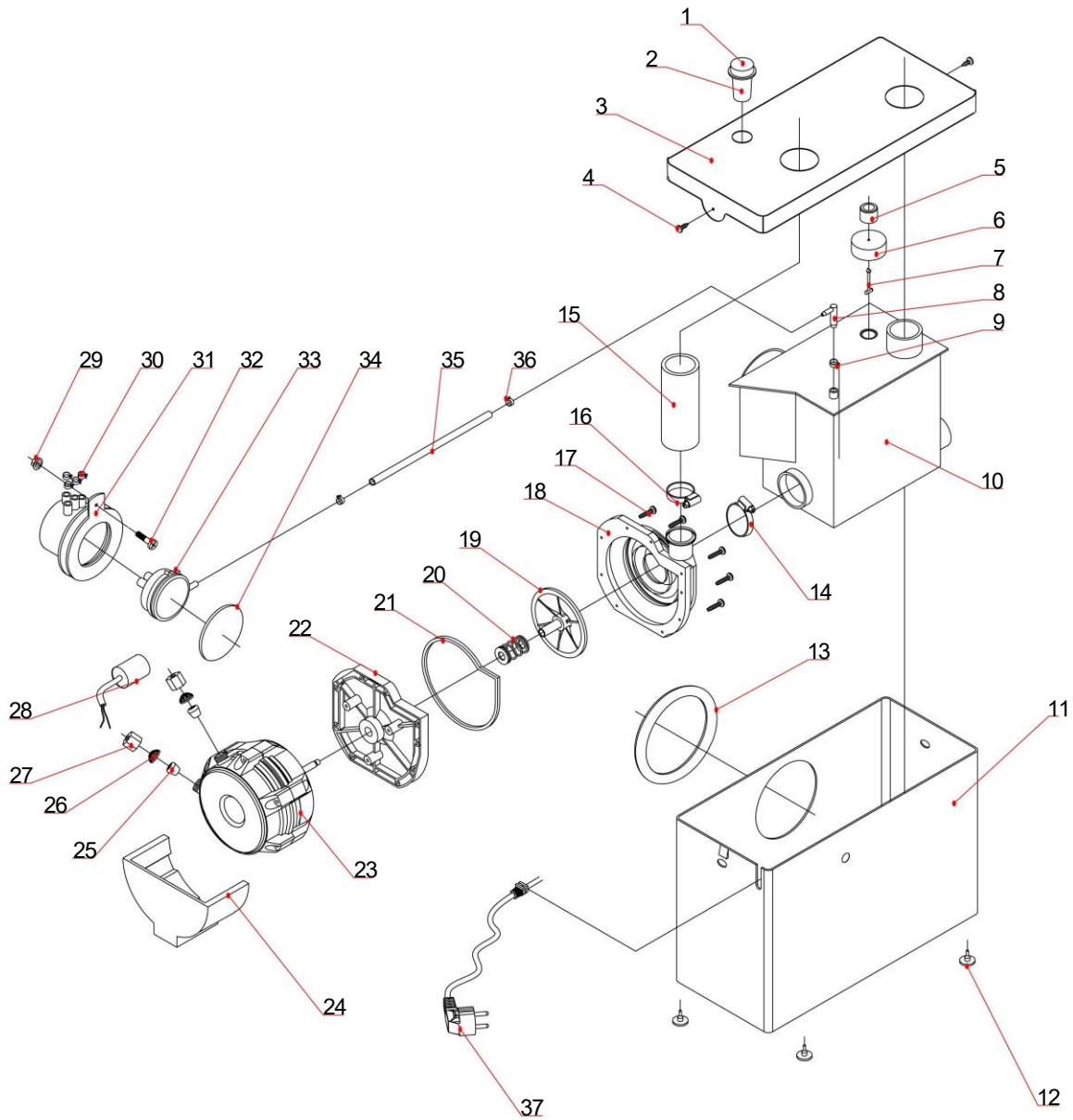
Pump system does not pump out and operates continually

- This error occurs with macerators that have been switched off (no electricity) and still had an inlet or into which waste water has been evacuated under pressure from a dishwasher or washing machine or which had more inlet than the pump could pump out. This “overcrowded” the device.
- It can happen that water enters the macerator pressure switch. As a result, the pressure switch is no longer working properly. The system then either runs continuously or no longer switches itself on automatically.
- The error can be rectified quickly, which does not affect the warranty. To do so, proceed as follows:
 1. Disconnect the lifting unit from the power supply (pull the plug).
 2. Loosen the two macerator cover screws (narrow sides) and remove the cover.
 3. Empty the small transparent hose that connects the large container with the small black control box. Also dry out the pressure switch in the small black box (on the heater or in the sun).
 4. After drying, reassemble the system in reverse order.
 5. Put the macerator back into operation; if the pressure switch is not defective, the system will run again without errors.

Cleaning the device

The toilet pump macerator must be cleaned from the outside **only** with mild cleaning agents like damp cloth and soapy water. Damage caused by inappropriate cleaning agents does not fall under warranty.

Exploded view and parts list



No	Name	No	Name
1-2	Push button (50741-2)	15	Evacuation pipe (plastic/rubber)
3	Pump lid (50741-4)	16	Steel clamp
4	Screw	17	Screw
5-9	Depressurisation float/vent valve	18-27	Engine
10	Collecting tank (50741-6)	28	Condenser
11	Housing (50741-4)	29-34	Pressure switch (50741-1)
12	Rubber feet	35	Transparent compressed air line (pressure switch)
13	Seal	36	Plastic clamp
14	Steel clamp		

Disposal regulations

EU guidelines regarding the disposal of scrap electric appliances (WEEE, 2012/19/EU) were implemented in the law related to electrical and electronic equipment and appliances.

All WilTec electric devices that fall under the WEEE regulations are labelled with the crossed-out wheeled waste bin logo. This logo indicates that this electric equipment must not be disposed with the domestic waste.

The company WilTec Technik GmbH has been registered in the German registry EAR under the WEEE-registration number DE45283704.

Disposal of used electrical and electronic appliances (intended for use in the countries of the European Union and other European countries with a separate collection system for these appliances).

The logo on the article or on its packaging points out that this article must not be treated as normal household waste but must be disposed to a recycling collection point for electronic and electrical waste equipment. By contributing to the correct disposal of this article you protect the environment and the health of your fellow men. Environment and health are threatened by inappropriate disposal.



Material recycling helps reduce the consumption of raw materials.

Additional information on recycling this article can be provided by your local community, municipal waste disposal facilities, or the store where you purchased the article.

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