# **User's Manual**

# Macerator Waste Pump





Illustration similar, may vary depending on model

Please read and follow the operating instructions and safety information prior to initial operation.

### Technical changes reserved!

Illustrations, functional steps and technical data may deviate insignificantly due to continuous further developments.





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#### Introduction

Thank you for choosing to purchase this quality product. To minimise the risk of injury, we ask you to always take some basic safety precautions when using this product. Please read this operating manual carefully and make sure that you understand it.

Keep these operation instructions in a safe place.

#### Safety instructions



# CAUTION:

The device is not intended for use by persons (including children) with impaired or limited physical, sensory, and mental abilities or lack of experience and/or real knowledge, unless they are supervised by a person responsible for their safety or follow the instructions made by this person on how to correctly use the device. Children should be supervised to ensure that they do not play with the device.

#### **Product description**

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



# Attention!

- Perform a visual inspection of the device before every use. Do not use the device if the safety appliances are damaged or worn out. Never override safety regulations.
- Only use the device accordingly to the intended purpose stated in this manual.
- You are responsible for the safety of the working zone.
- If the cable or the plug is damaged due to external influences, the cable must not be used. The cable must be replaced with a new one. This work may only be carried out by an electrician.
- The voltage of 230 V AC indicated on the nameplate of the device must match the existent mains voltage.
- Never lift, carry, or fix the device by using the power cable.
- Make sure that the electrical plug connection is protected from flood and moisture. Always unplug the device before working on it.
- Avoid exposing the device to direct jets of water.
- The user is responsible for complying with local safety and mounting regulations. Ask an electrician, if necessary.
- The user must take appropriate measures (e.g., installation of an alarm system, a reserve pump, etc.) to prevent damage caused by the flooding in case of device malfunctioning.
- In case of device failure, repairs can only be carried out by an electrician. No responsibility is accepted for damage caused by improper maintenance or use.
- The device must never run dry or be operated with its suction line fully closed. The manufacturer's warranty is void for damage to the device caused by dry running.
- Do not use this device to operate swimming pools.
- This device must not be integrated into any kind of domestic water circuit meant for potable water.
- Pumping aggressive liquids and abrasive substances must always be avoided.
- The pump must be protected from frost and it must be made sure that it cannot run dry.
- The device must not be installed in septic tanks or pump shafts.
- Avoid that chemical solvents, strong acids, or bases enter the device.
- Only dispose of your toilet paper, faeces, and waste water via the device. Any other kind of waste must not be thrown into the toilet.
- Avoid that too much hair enters the device.



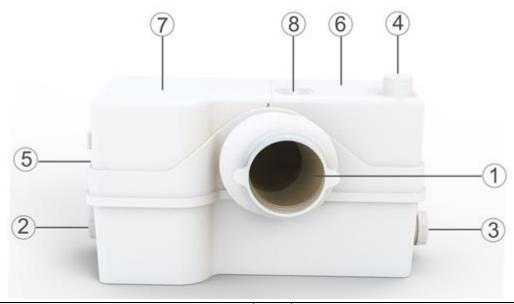




Read all safety precautions and instructions. Failure to obey the safety precautions and instructions might cause an electric shock, a fire, and/or severe injuries. Keep all safety precautions and instructions for future use.

## **Technical specifications**

Power (W)	800
Voltage (V)	220–240
Frequency (Hz)	50
Pumping width (m)	90
Pumping head (m)	9
Max. flow rate (½min)	170
Heat protection (°C)	125
Protection class	IPX4



Nº	Name	Nº	Name
1	Inlet for toilet Ø 100 mm	5	Emergency outlet ø 10 mm
2	Inlet Ø 40 mm	6	Outlet Ø 23/28/32/44 mm (2 pieces)
3	Inlet Ø 40 mm	7	Repair flap
4	Inlet Ø 40 mm (optional)	8	Vents





## **Figures**

Figure 1: Dimensions (in mm)

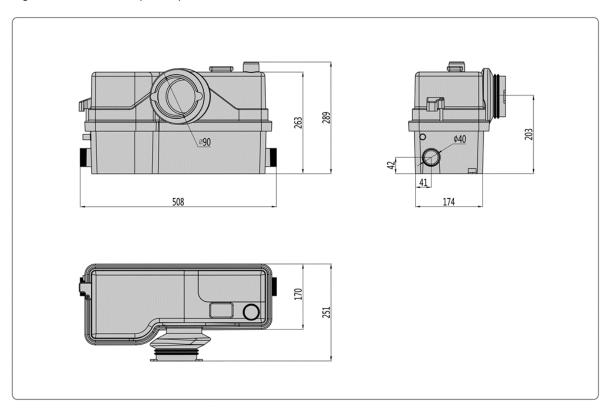


Figure 2: Spare parts

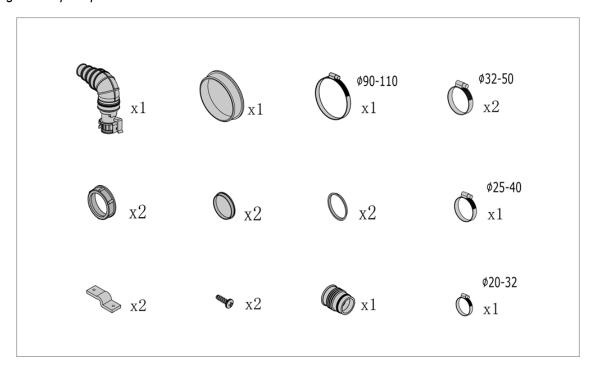
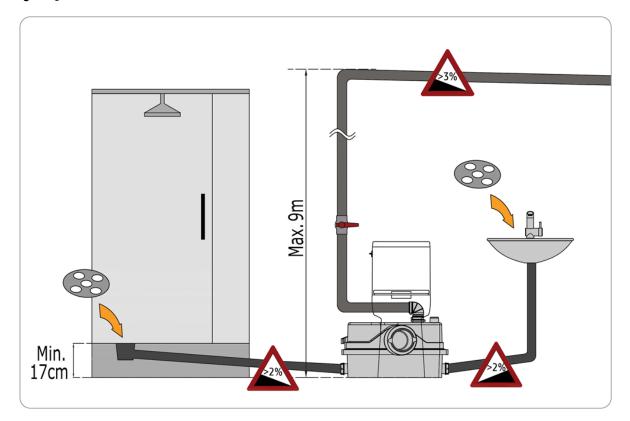






Figure 3: Installation



- An outlet check valve is required.
- Install an additional manual check valve for repair (suggestion).
- There must a minimum distance of 17 cm between the drain and floor when you use the side inlet.
- Use a filter in the shower and toilet to prevent hair from getting into the device.

Figure 4: Connections

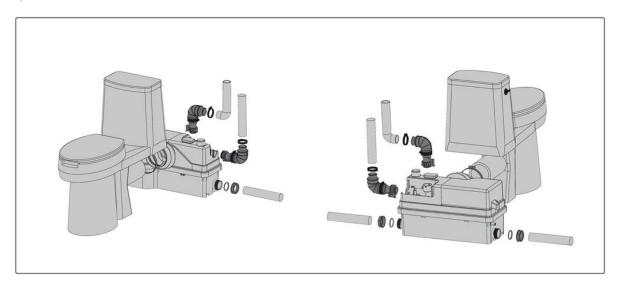






Figure 5: Inlet covers (covers for non-use of inlets)

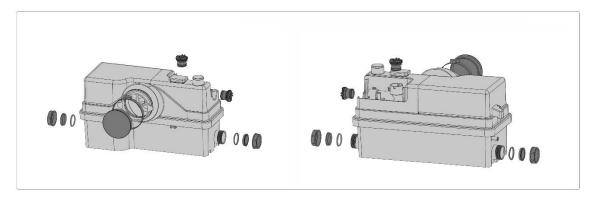


Figure 6: Optional intake for additional equipment

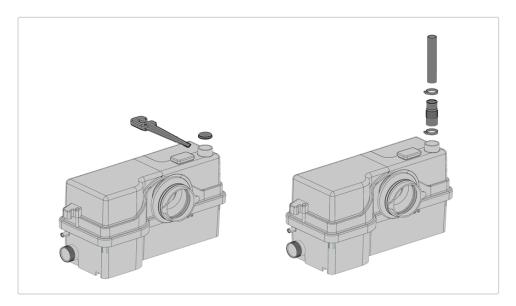


Figure 7: Fixations

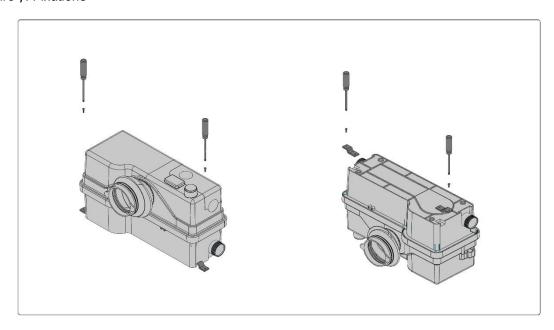






Figure 8: Outlet (non-return valve)

Attention! The non-return valve being only 1–2 cm in size, avoid inserting it too far.

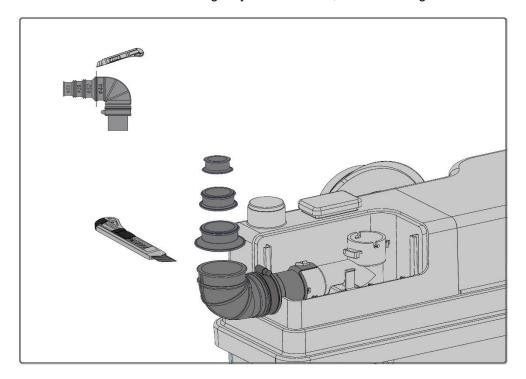
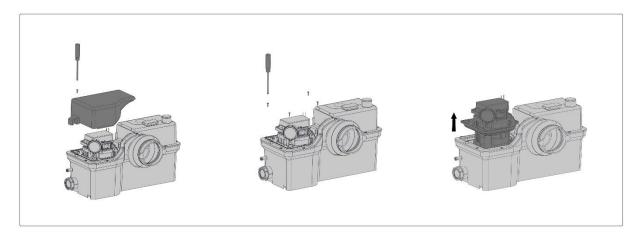


Figure 9: Repair

Open the upper repair flap to repair the ventilation switch and to take the block out. The entire motor and control system can as well be easily exchanged.







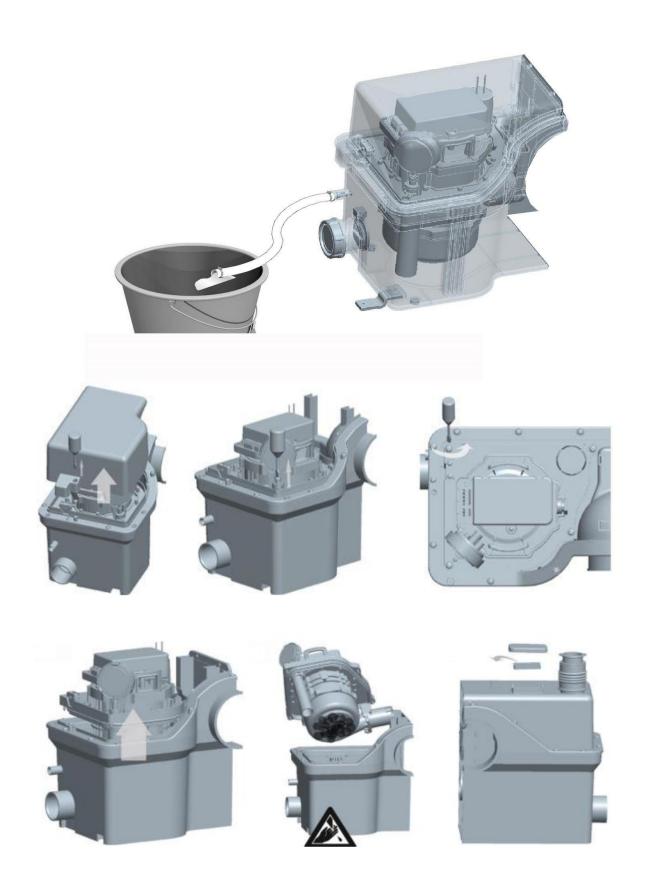






Figure 10: Heads and draws

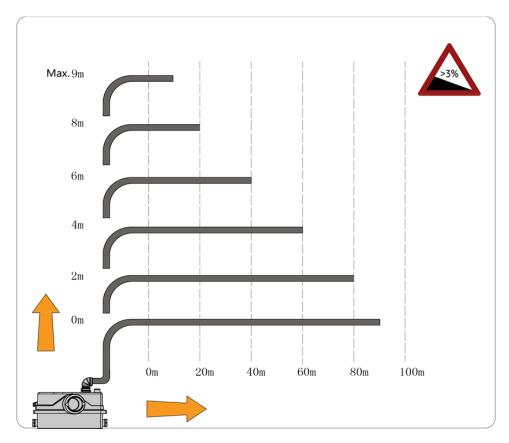


Figure 11: Flow rates

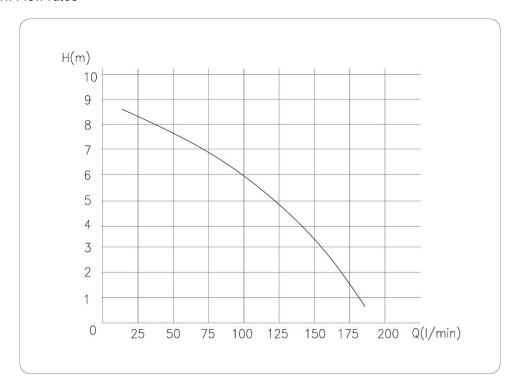






Figure 12: Distance to wall

The minimum size between the outlet of the toilet and rear wall is  $255\ mm$ .

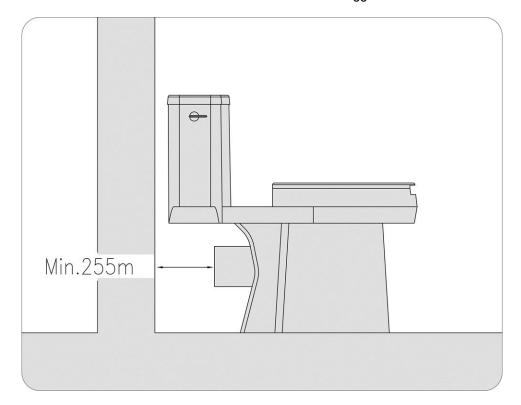
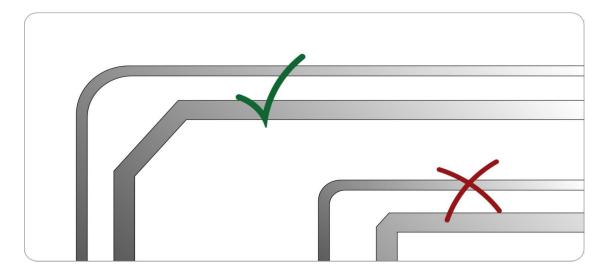


Figure 13: Elbow fittings

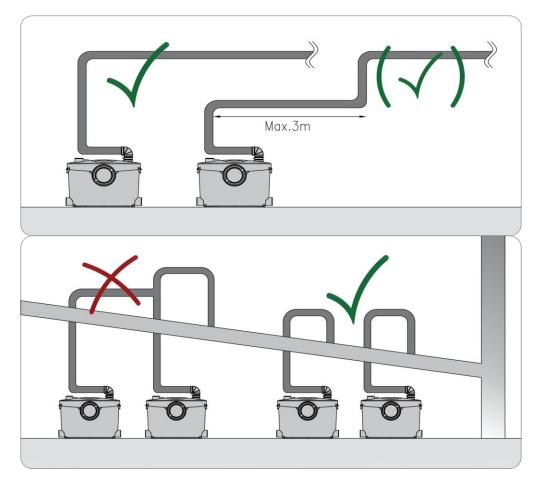
We recommend two  $45^{\circ}$  elbow fittings instead of one  $90^{\circ}$  elbow fitting.







Figures 14 and 15: Outlet tube connection



#### Uses

The product is exclusively suitable to pump waste water from a cabin shower, a bidet, and/or a wash-basin as well as from a toilet.



#### Notes

- The waste pump is not appropriate for public, heavy commercial, or industrial use; it is only suitable for a limited number of users.
- The installation is made with a direct connection to the toilet and in the very room where the sanitary installation is found.
- There must be a second toilet above the level of backed-up water.
- The product must be fastened to the floor to avoid any lifting or turning.

## Use and warning notices

- In case you are not at home for a longer time (e.g., on holidays), it is advisable to turn off the water supply of the toilet that the unit is connected to.
- The toilet attached to this unit can be used like any normal toilet, requiring very little maintenance. The unit works by itself as soon as the required water level is reached in the housing.
- The overheating protection of the motor is switched on as soon as the motor is overheated. Pull the plug out of the socket and plug it in again. After a waiting time of around 30–60 min, the device will work normally again.





Warning! The device is only suitable for the disposal of toilet paper, faeces, and sewage! Damage caused by foreign objects such as cotton, condoms, sanitary towels, wet wipes, food, hair, metal, wood, or plastic objects are not covered by the guarantee. Solvents, acids, and other chemicals can also damage the device and void the warranty.

#### **Pumpable liquids**

- Domestic waste water and dirty water containing toilet paper and faeces
- Normal liquids used to clean the devices connected if they have a pH from 4 to 10



- The product must not pump any acid chemicals or solvents.
- The product is designed for flow quantities of 4, 6, and 9 litres. A flow quantity of 4 litres is only permitted with a low quantity of solids present in the liquid to be pumped.

#### Installation

- Attention! Never use the supply cable to pull or lift the product.
- The product must be kept accessible for maintenance and repair.
- The product must be installed in a frost-free room to avoid that the liquids pumped freeze. Make sure that all external piping is sufficiently insulated.
- Attention! The pressure line must be made of hard material, e.g., copper, or from hard PVC with plastic-welded connections.
- To avoid that vibrations be transferred to the building, it must be made sure that the piping is installed in a fixed manner and that all connection pieces can neither move nor get into contact with parts of the building.
- Extension pipes installed between the toilet and waste pump must not exceed 150 mm in length because of the increased risk of obstruction.
- Please refer to figures when installing the device.

#### **Electrical connection**

- Make sure that the product is suitable for the main voltage and frequency of the location where it shall be installed.
- The electrical connections must be made according to the local regulations.
- If possible, have a qualified electrician install the electrical connection.



# **⚠** Warning!

- The device must be earthed.
- The installation must include a residual current circuit breaker for protection against earth fault currents. This ensures protection when using a safety plug or other plug with an earthing pin.
- The product must be connected to a power switch with a minimum contact gap of 3 mm in all poles. In the event of excess temperature, a thermal switch switches the motor off and switches it on again automatically when it has cooled down sufficiently.

#### Maintenance

- The waste pump does not require any special maintenance; yet, it is advisable to check the operation and pipe connections at least once in a year.
- Replace the activated carbon filter once in a year.





#### Maintenance instructions

Due to its design, the product is easy to maintain in the case of a dysfunction or an obstructed pump.

#### Warning!

- Before working on the waste pump, disconnect it from the mains and pull out the plug. Make sure that the energy supply cannot be switched on by accident.
- · All rotating parts must have come to a standstill.
- The product can only be maintained by a trained and qualified person.

#### Maintenance hints

- Make sure that there is no obstruction.
- Grease the zone of the sealing of the pressure switch to make installation easier.
- If the water level inside the tank is above the motor flange, empty the tank with the help of a drain hose.
- · Lift the device vertically before tilting it.
- Pay attention to the sharp edges of the cutting unit. Wear protective gloves.
- The activated carbon filter should be replaced once in a year for the filtering function to keep its
  effectiveness.

#### **Troubleshooting**

Cause	Possible error	Proposed solution
	Power failure	Re-establish power.
The motor will not start when the water tank level reaches the starting value.	Fuse blown; if a new fuse blows immediately, either the wire or the motor is defective.	Replace fuse; if the cable or motor is defective, replace the defective parts.
	Impeller/macerator is jammed, thermal switch has tripped	Free impeller or macerator and wait until motor has cooled down thermal switch has re-set.
	Pressure switch line clogged	Remove pressure switch and clean line.
The motor runs, but does not	Impeller/macerator jams	Free impeller or macerator and check that it can rotate freely.
work.	Motor or capacitor defective	Replace motor or capacitor.
	Control board defective	Replace control board.
	Water leaks from the inlet into the tank.	Check if system is leaking.
The motor runs continuously or at irregular intervals.	Water escapes from the pressure line back into the tank.	Check non-return valve.
	Pressure switch defective	Replace pressure switch unit.
	Pump or tank obstructed	Clear obstruction.
The motor runs, but does not suck up water.	Air trapped in pump or vent in pump housing blocked	Check function of vent valve in tank. Make sure that carbon filter is not wet; that vent opening in pump housing is not blocked.
	Outlet or tubing obstructed	Clear obstruction. Check non-return valve.





The lifting station is emptied	Discharge line too long or with too many bends	Increase drain line size. Modify piping to reduce the number of bends. Make sure that there are only slight bends.
slowly.	Pump housing leaking	Replace pump housing (service part).
	Hydraulics or macerator blocked	Check and clean hydraulics and macerator.
Rattling noise from the lifting station, but water is being pumped out.	Foreign body hitting impeller or macerator	Remove foreign bodies.
Bad smell coming from the tank	Carbon filter dirty	Replace carbon filter.
The water from the chawer or	Non-return valve in inlet stuck, does not open, or does not close sufficiently.	Check non-return valve.
The water from the shower or other device connected to the lower inlets drains slowly. Back-	Hydraulics or macerator blocked	Check and clean hydraulics and macerator.
flow from lifting station.	Starting level has changed	Check and clean the pressure switch line.
	Suction line diameter too small	Use larger diameter pipe.





#### Regulations for waste disposal

The Waste Electrical and Electronic Equipment Directive (WEEE Directive, 2012/19/EU) of the EU was implemented in the German law related to electrical and electronic equipment and appliances.

All WilTec electric devices that fall under the WEEE directive are labelled with the symbol of a crossedout wheeled rubbish bin. This symbol indicates that this electric device must not be disposed of with the domestic waste.

WilTec Technik GmbH is registered with the German registration authority EAR (Stiftung Elektro-Altgeräte Register) under the WEEE-registration number DE45283704.

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

The symbol on the packaging or the product itself indicates that this product must not be treated as normal domestic waste but must be disposed of at a recycling collection station for electrical and electronic waste.

By disposing of this product correctly, you contribute to the protection of the environment and the health of your fellow people. Inappropriate disposal threatens the environment and health.



Material recycling helps to reduce the consumption of raw materials.

Additional information about the recycling of this product can be provided by your local commune, the municipal waste disposal facilities, or the store where you purchased the product.

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