

Operation Manual

Domestic Waterworks

50753, 50757, 50758, 50760



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:

In and near standing water, garden ponds, and swimming ponds, the use of this device is only allowed with a fault current protection switch with a triggering nominal current up to 30 mA (according to VDE 0100 Article 702 and 738).

The device is not suitable for use in swimming pools, paddling pools of any kind, or waters in which people or animals may stay during operation. Operation of the device with people or animals being in the danger area is not permitted. Ask an electrician, if necessary.

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.

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 repaired. It must be replaced with a new one. This work can 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 electric plug connections are protected from flood and humidity.
- Before working on the device (maintaining, repairing, cleaning it), pull out the plug.
- 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.
- The device must never run dry or be operated with its suction line fully closed.
- 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.

WARNING:

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.



Resistance

- The maximum temperature of the pumped liquid should not exceed +35 °C in continuous operation.
- The pump must not be used to pump flammable, gassing, or explosive liquids. The transport of aggressive fluids (acids, bases, etc.) as well as of abrasive substances (e.g., sand) must be avoided.
- To avoid damage caused by dry running, we strongly recommend our customers to use one of our automatic pump controls that prevent the pump from running dry.

Intended use and field of application

- For watering green spaces, vegetable patches, and gardens
- For operating lawn sprinklers
- With pre-filter for withdrawing water from ponds, streams, rain barrels, rainwater tanks, and fountains

Media to be pumped

For pumping clear water (sweet water), rain water, or suds (slightly soiled water)

Operating instructions

We recommend the use of a prefilter and a suction set with suction hose, suction strainer and a check valve to prolong the suction process and to avoid damaging the pump with stones and foreign bodies.

Technical specifications

Item number	50753	50757	50758	50760
Size (mm)	360×230×420	365×210×240		440×200×260
Weight (kg)	8.9	8.8		9.05
Material	Plastic	Stainless steel	Steel	
Power supply	230 V~50 Hz			
Power consumption (W)	1200	1100		
Hose connection (mm)	31 (1") IG			30.5 (1") IG
Length of cable (m)	2×1.2 (∅ 1,0)	2		
Temperature range (°C)	0–50	0–35		max. 40
Pressure (bar)	4	max. 4.5		
Max. flow rate (l/h)	3500	4600		
Lifting height (m)	50	46	45	
Suction height (m)	8	7		
Sound level (dB (A))	84	91		



Electrical connection

- The electrical connection is made to an earthed socket 230 V ~ 50 Hz. Fuse min. 10 A.
- The device has an ON/OFF switch with which it is switched on and off. The inner control lamp of the switch is lit when the motor is switched on.
- The motor is protected from overcharge and blockage with the help of the built-in thermal motor protection. When overheated, the pump motor is automatically switched off by the thermal protection; after cooling down, the pump automatically re-starts.

Suction line

- Connect a suction hose (plastic hose min. 3/4" spiral reinforced) directly or with a thread nipple to the suction connection (1" internal thread) of the pump.
- The suction which is used should have a suction valve. In case the suction valve cannot be used, a check valve should be installed in the suction line.
- Position the suction line from the water withdrawal to the pump on a rising gradient. Avoid placing the suction line higher than the pump height; air pockets in the suction line would slow down and impede the suction process.
- The suction and the pressure line must be installed in such a way, that they do not exert any mechanical pressure on the pump.
- The suction valve should lie deeply enough in the water, so that a drop in the water level cannot lead to the pump running dry.
- A leaking suction line prevents the suction of water due to air intake.
- Avoid sucking in foreign particles (sand, etc.) and, if necessary, install a prefilter.

Pressure line connection

- The pressure line (should be at least 3/4") must be connected directly or via a thread nipple to the pressure line connector (1" internal thread) of the pump.
- With the suitable screw joints a 1/2" pressure hose can be used. Correspondingly the pump output is reduced due to the small pressure hose.
- During the suction process the shut-off devices (valves, spray nozzles) in the pressure line must be completely open so that the air in the suction line can escape freely.

Initial operation

1. Place the device on a level and solid surface the temperature of which does not exceed 40 °C. On the installation site, place the pump horizontally so that the bearing can operate correctly. Screw the pump to the surface.
2. Install the suction line so that it is ready for use. The suction hose should not be narrower than the suction connection. If the suction height exceeds 4 m, use a suction line with a larger diameter.
3. Connect to mains.
4. Fill in the pump with water at the pressure port.
5. During the suction process, the shut-off devices (valves, spray nozzles) in the pressure line must be completely open so that the air in the suction line can escape freely.
6. Depending on the suction height and the air quantity in the suction line, the first suction process can take approx. 1/2 min–5 min. With longer suction periods of sucking in, new water should be refilled.
7. If the pump is removed after its use, do not forget that it must be refilled with water before you operate the pump again and before restarting and connecting it again.

Maintenance hints

The machine is largely maintenance-free. However, for a long working life and continuous operation, we recommend regular checking and proper care.



⚠ Attention! Before every maintenance, the pump must be switched off; to do so, disconnect the pump from the power supply.

- Before a long period of non-use, the pump must be rinsed thoroughly with water, completely emptied, and stored in a dry environment.
- In case of frost danger, the pump must be completely emptied.
- After long non-operation periods, check if a proper turning of the rotor takes place; to do so, shortly switch the pump on and off.
- In case the pump is blocked, connect the pressure line to the water line and remove the suction hose. Open the water line. Switch on the pump for several times for approx. 2 s. Thus, blockages can be cleared in most cases.

Malfunctions of the pump

Engine does not run

Cause	Solution
No supply power (voltage)	Check voltage.
Pump impeller blocked – thermo controller has switched pump off	Dismantle and clean the pump.

Pump does not suck in

Cause	Solution
Suction valve not in the pumped medium	Bring suction valve in the pumped medium.
Pump room without water	Fill in pump medium in suction nozzle.
Air in suction line	Check if suction line is well sealed.
Suction valve leaking	Clean suction valve.
Suction strainer (suction valve) blocked	Clean suction strainer.
Max. suction lift exceeded	Check suction lift.

Insufficient flow rate

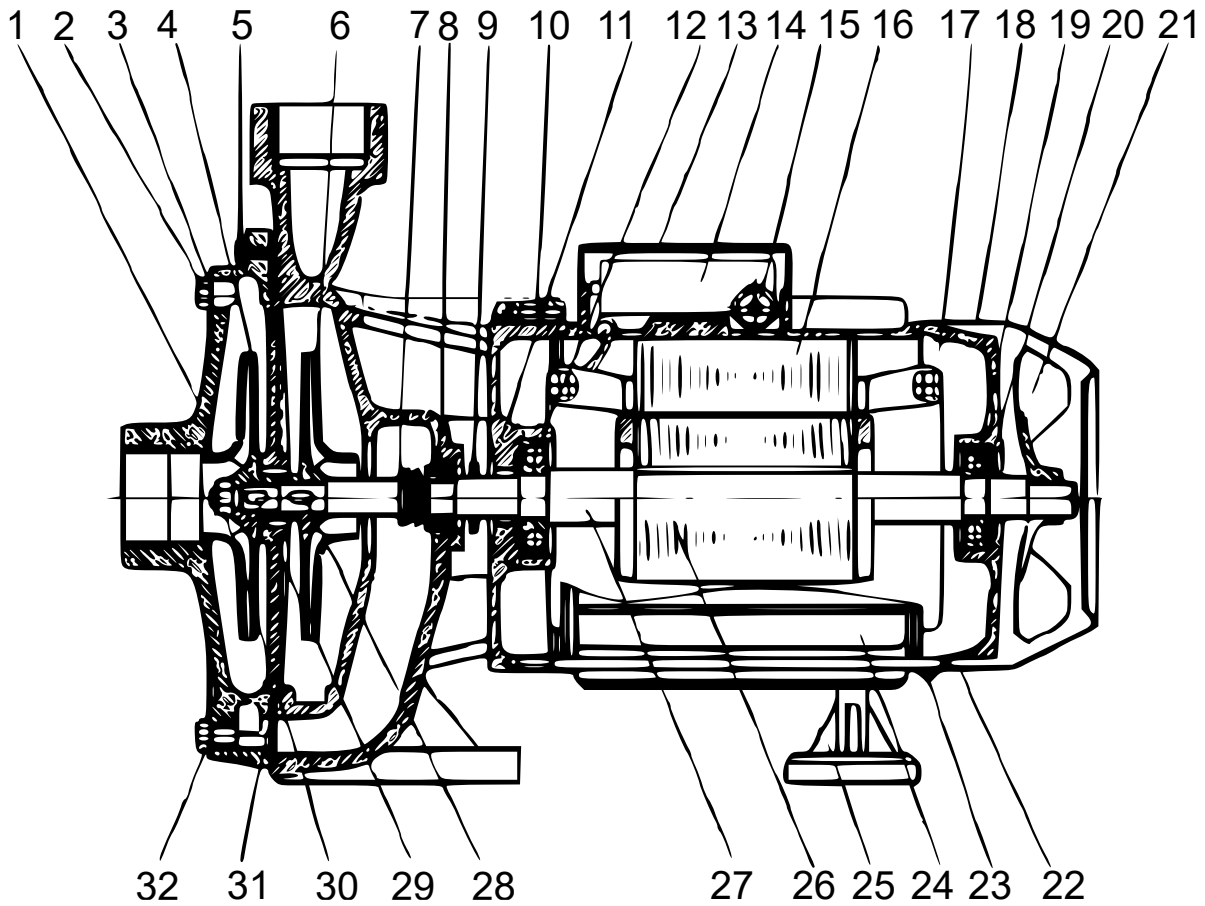
Cause	Solution
Suction lift too high	Check suction lift.
Suction strainer dirty	Clean suction strainer.
Water level drops rapidly	Place the suction valve more deeply.
Pump efficiency reduced due to harmful substances	Clean pump and replace worn parts.

Thermo switch switches off pump

Cause	Solution
Engine overloaded – excessive friction due to foreign particles	Dismantle and clean pump, prevent sucking-in of foreign particles (filter).

⚠ Attention! The pump must not run dry.

Exploded view and parts list



No	Name	No	Name
1	Pump housing	17	End cap
2	Vent screw	18	Fan casing
3	Gasket	19	Ball bearing
4	Rotor	20	Washer
5	Screw	21	Fan
6	Rotor	22	Cable inlet
7	Rotating mechanical sealing	23	Screw
8	Fixed mechanical sealing	24	Motor housing
9	Gasket	25	Foot
10	Screw	26	Rotor
11	Motor connection	27	Shaft
12	Bearing	28	Key (block)
13	Connection box	29	Key (block)
14	Capacitor	30	Nut
15	Cable connection	31	O-ring
16	Stator	32	Drain screw and sealing



Pump control for domestic waterworks

Pressure switch EDWC2001

The pressure switch automatically controls the start and stop of the pump depending on the pressure drop (opening of the water faucet) and water flow stop (closing the water faucet). The pressure switch stops the pump if no water is conveyed (protection against dry running).

Technical specifications

Intake voltage (V)	220–250
Frequency (Hz)	50
Max. current (A)	10
Pressure range (bar)	1–4 (58 psi)
Max. pressure (bar)	10
Max. temperature (°C)	55
Connections (mm)	25.4 internal thread
Protection class	IP 65

Function

- Starts and stops the pump automatically.
- It protects the pump against damage caused by dry running.
- The pressure switch starts the pump for 15 s if it is connected to the voltage source. If the pressure in the line system drops, the pump is restarted. In the case of conventional systems with pressure switch and pressure tank, the pump stops running if a certain pressure level is achieved. In contrast to this, the pressure switch stops depending on the flow rate. In doing so, it delays switch-off of the pump for a few (7–15) seconds to minimise the number of pump starts.

LED display

- Upper (1st) LED (alarm) blinks: unit off due to lack of water (protection against dry running) – press “restart” to start the unit again.
- Middle (2nd) LED blinks: pump switched on.
- Lower (3rd) LED blinks: switch has voltage.
- Restart (reset) button: restart unit.

Troubleshooting

Problem	Dysfunction of the unit	Other dysfunction
Pump does not start	Circuit board damaged	Missing voltage
		Pump defect
		Mixed-up electric cables
Dry running display despite water	Set pressure too high (adjust pressure setting screw until the red alarm-LED is off, if pump stops)	
Pump does not stop	Circuit board damaged	There is a leak with a loss superior to 0,6 1/min.
	Flow detector trapped in the upper position	



	Reset-button blocked	
	Pump has not enough pressure	
Pump runs intermittently (pump starts and stops constantly)	Circuit board damaged	There is a leak with a loss inferior to 0,6 $\frac{1}{min}$.
	Pump has not enough pressure	

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 crossed-out 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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