Pioneering for You



# Wilo-DrainLift MINI3-XXS



en User manual

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## Table of contents

<ol> <li>About these instructions</li> <li>Identification of safety instructions</li> <li>Personnel qualifications</li> <li>Fluids hazardous to health</li> </ol>	. 4 . 5
1.3 Personnel qualifications	. 5
1.4 Fluids hazardous to health	
	. 5
1.5 Personal protective equipment	. 6
1.6 Electrical connection	. 6
1.7 Installation	. 6
1.8 Removal	. 7
1.9 Operating fluid	. 7
1.10 Copyright	. 7
2 Application/use	. 7
2.1 Intended use	. 7
2.2 Improper use	. 8
3 Product description	. 9
3.1 Description	
3.2 Type key	
3.3 Technical data	. 9
3.4 Scope of delivery	10
4 Storage	10
5 Installation	11
5.1 Consulting guide	11
5.2 Symbols used in the assembly instruc-	
tions	
5.3 Installing the lifting unit	12
6 Operation	12
6.1 Switching on and off	12
6.2 Initial commissioning	12
6.3 More than three months of downtime	
	13
7 Removal	13
8 Maintenance and repair	13
8.1 Cleaning the lifting unit	13
8.2 Exchanging the active carbon filter	14
9 Fault	14
10 Information on the collection of used elec-	
trical and electronic products	14

# 1 Safety

# 1.1 About these instructions

These instructions form part of the product. Compliance with the instructions is essential for correct handling and use:

- Read the instructions carefully before all activities.
- Keep the instructions in an accessible place at all times.
- Pass the instructions on to a subsequent owner.
- Observe all product specifications.
- Observe the markings on the product.

The language of the original operating instructions is German. All other languages for these instructions are translations of the original operating instructions.

Failure to observe the instructions will result in danger to persons or damage to property. The manufacturer is not liable for damage caused by:

- Improper use.
- Incorrect operation.

# 1.2 Identification of safety instructions

In these installation and operating instructions, safety instructions are displayed as follows:

- Danger to persons: Safety instructions are preceded by a corresponding symbol and are shaded in grey.
- Damage to property: Safety instructions start with a signal word and are displayed **without** a symbol.

# Signal words

# DANGER!

Failure to follow the instructions will result in serious injuries or death!

## • WARNING!

Failure to follow the instructions can lead to (serious) injury!

CAUTION!

Failure to follow the instructions can lead to potentially irreparable property damage.

• NOTICE!

Useful information on handling the product

# Symbols

These instructions use the following symbols:



Danger of bacterial infection

# 1.3 Personnel qualifications

- Persons aged 16 and over
- Have read and understood the installation and operating instructions

# Children and persons with limited abilities in the household

This device can be used by children from 8 years of age as well as people with reduced physical, sensory or mental capacities or lack of experience and knowledge if they are supervised or instructed on the safe use of the device and they understand the dangers that can occur. Children are not allowed to play with the device. Cleaning and user maintenance must not be carried out by children without supervision.

# 1.4 Fluids hazardous to health

Hazardous germs form in sewage. There is a danger of bacterial infections!

- All connections must be tight.
- Wipe up drips immediately.
- Fluids may flow into the room in the event of an accident.

## 1.5 Personal protective equipment

The aforementioned branded products constitute non-binding suggestions. Similar products from other brands can also be used. WILO SE does not assume any liability for the aforementioned products.

- Safety gloves (EN 388): uvex phynomic wet
- Safety glasses (EN 166): uvex skyguard NT

If there is the possibility of coming into contact with the fluid, also wear the following protective equipment:

 Respiratory mask (EN 149): Half mask 3M series 6000 with filter 6055 A2

# **1.6** Electrical connection

- Mains connection with correctly installed protective earth conductor.
- Install residual-current device (RCD) with 30 mA.
- Fuse protection at the mains connection: max. 10 A.
- The product is ready for operation when the plug is put in the socket. We recommend switching the socket via a separate on/off switch.
- Never pull the connection cable.
- Do not connect products with a damaged connection cable! Have the connection cable replaced by a qualified electrician or the customer service.

# 1.7 Installation

- For all work, disconnect the product from the power supply (pull plug) and secure it against being switched on again without authorisation (switch off fuse).
- Fingers can be crushed when installing the connection and sealing ports as well as the pump. Perform work carefully.
- Install floor fixation (buoyancy safeguards).

- To keep operating noise as low as possible, place soundproof mat between the product and the wall.
- Do not install damaged or defective products.

# 1.8 Removal

- For all work, disconnect the product from the power supply (pull plug) and secure it against being switched on again without authorisation (switch off fuse).
- Ventilate the room properly.
- Wipe up drips immediately.
- Drain the tank prior to removal. If the tank is not emptied, the sewage can flow directly into the room when the pipework is loosened.
  - Pump out the fluid using a diaphragm hand pump (provided by the customer).
  - Include an emergency drain during installation. NOTICE! The emergency drain cannot be added later on.

# 1.9 Operating fluid

The installed pump is filled with white oil. If the seal is defective, the oil enters the pumped fluid and the sewer.

# 1.10 Copyright

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## 2 Application/use

## 2.1 Intended use

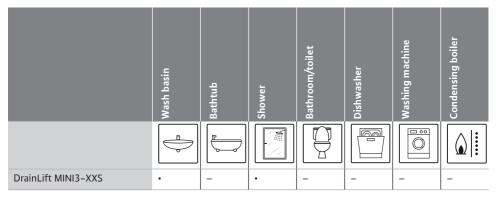
- For installation in rooms or as a concealed-wall installation.
- For backflow resistant drainage of
  - Drainage points below the backflow level
  - Drainage points that cannot be drained via the natural downward slope.

Fluids	DrainLift MINI3-XXS
Condensate	-
Sewage without faeces	•
Sewage containing faeces	-

#### Sewage pumping according to 12050

The sewage lifting unit meets the requirements of EN 12050-2.

## Permitted discharge points (drainage fixtures)



## 2.2 Improper use

**Do not** introduce the following fluid and solids:

- Sewage from drainage objects that are located above the backflow level and can be drained by natural fall.
- Sewage containing faeces
- Debris, ash, rubbish, glass, sand, plaster, cement, lime, mortar, fibrous materials, textiles, paper towels, wet-wipes (e.g. fleece cloths, moist toilet paper wipes), nappies, cardboard, coarse paper, synthetic resins, tar, kitchen waste, grease, oil
- Toxic, aggressive and corrosive fluids, such as heavy metals, biocides, pesticides, acids, bases, salts, swimming-pool water
- · Cleaning agents and disinfectants (e.g. with dichloromethane, methylene chloride or acetone)
- Dishwashing or laundry detergents in excess amounts, and such that have a disproportionately high degree of foam formation
- Drinking water

**Do not** connect the following drainage fixtures:

- Bathroom/toilet
- Dishwasher
- · Washing machine

Intended use also includes compliance with this manual. Any other use is regarded as non-compliant with intended use.

## 3 Product description

## 3.1 Description

Compact, fully submersible lifting unit with submersible pump, ready for connection. Level measurement performed by a vertical float switch. Venting is integrated in the cover and equipped with an active carbon filter.

Up to four connections are available:

- 1x 40 mm inlet (DN 40) without non-return valve, located on top, closed ex-works.
- 2x 40/50 mm inlets (DN 40/50) with non-return valve, horizontal position on left and right side, open exworks.
- 1x 32 mm discharge port (DN 32) with non-return valve, horizontal position on right side, open ex-works.

## 3.2 Type key

Example:	Wilo-DrainLift MINI3-XS/WC-EF
MINI3	Small lifting unit
xs	Size
	<ul> <li>XXS = Compact small lifting unit</li> <li>XS = Small lifting unit</li> </ul>
WC	Connection versions
	<ul> <li>Without = without toilet connection</li> <li>WC = with toilet connection</li> </ul>
EF	Mains plug version
	<ul> <li>EF = CEE 7/7 (shockproof plug) for type E and F sockets</li> <li>I = type I plug for type I sockets</li> </ul>

## 3.3 Technical data

	DrainLift MINI3-XXS	
Approved field of application		
Max. delivery head	See rating plate	
Max. volume flow	See rating plate	
Fluid temperature	3 to 40 °C (37 to 104 °F)	
Max fluid temperature, short-term	75 °C (167 °F) for 5 min	
Ambient temperature	3 to 40 °C (37 to 104 °F)	
Operating mode	\$3 15%	
Electrical data		
Mains connection	1~230 V, 50 Hz	
Power consumption [P <sub>1</sub> ]	250 W (0.3 hp)	
Rated power [P <sub>2</sub> ]	150 W (0.2 hp)	
Rated current $[I_N]$	1.2 A	
Speed [n]	2800 rpm	

Activation type	Direct
Protection class	IP68 (3 mWG/48 h)
Cable length	1.3 m (4 ft)

## Plug

5		
DrainLift MINI3EF	CEE 7/7 (shockproof plug)	
DrainLift MINI3I	1	
Volume and weights		
Tank volume	4 I (1 US.fl.gal.)	
Max. switching volume	1 I (34 US.fl.oz.)	
Weight	3.5 kg (7.7 lb)	

## 3.4 Scope of delivery

- Discharge port
  - 1x collar for HT pipe DN 32 (32 mm)
  - 2x 32-50 mm hose clips
- Inlet connection
  - 2x inlet connections DN 50 (50 mm)
  - 2x collars for HT pipe DN 40/50 (40/50 mm)
  - 2x non-return valve
  - 2x 50–70 mm pipe clamps
  - 2x 32-50 mm hose clips
  - 2x sealing plug
  - 6x O-rings
- Install floor fixation (buoyancy safeguards): 2x mounting brackets with screws and wall plugs
- Installation and operating instructions

## 4 Storage

- · Completely empty tank and disinfect the lifting unit.
- Storage conditions:
  - Maximum: -40 to +70 °C (-40 to 158 °F), max. humidity: 90%, non-condensing.
  - Recommended: 5 to 25 °C (41 to 77 °F), relative humidity: 40 to 50%.
- Coil the connection cable and attach to the tank.
- Protect the lifting unit and plug from high water (submersion).
- All connections must be tight.
- Protect against direct exposure to sunlight. Extreme heat can cause damage to the plastic parts!

### NOTICE! Keep the original packaging to ensure proper storage.

## CAUTION

## Beware of housing damage through PVC adhesive!

PVC adhesives damage the plasticizer of the plastic. Even small amounts on the housing lead to a total loss.

Do not allow PVC adhesives to come into contact with the unit:

- · Remove and dispose of drips with a separate towel.
- · Clean hands thoroughly.
- Exchange used work gloves.

## 5.1 Consulting guide

#### **Protective equipment**

- Safety gloves (EN 388): uvex phynomic wet
- Safety glasses (EN 166): uvex skyguard NT

For existing installation (replacement/retrofitting), also wear the following protective equipment:

• Respiratory mask (EN 149): Half mask 3M series 6000 with filter 6055 A2

### **Electrical connection**

Ensure an appropriate socket is present for the electrical connection:

- EF version: Type E or type F socket
- I version: Type I socket
- Carry out the installation work according to local regulations for wet-room installation.

#### Inlet pipe and discharge line

- Lowest (minimal) inlet height: 65 mm (2.5 in).
- Install gate valve in the discharge line.

#### **Concealed-wall installation**

- Ensure that the lifting unit is easily accessible, for example, to replace the active carbon filter.
- The lifting unit must be vented in the room.
- An appropriate number of sockets must be ensured: lifting unit, alarm switchgear, alarm signal, etc.
- Provide a gate valve in all inlets and the discharge lines.
- We recommend the installation of an alarm switchgear with moisture sensor. An alarm sounds if leakage occurs (e.g., burst pipe, accident).

### **Emergency drainage**

The lifting unit has a connection for emergency drainage. The lifting unit can be emptied via the emergency drainage in case of a fault. "Emergency drainage" accessories must be purchased separately.

### NOTICE! Connect the emergency drainage prior to installation. The emergency drainage cannot be connected later!

## Further information and documentation

All further information and documentation can be found at the following web address: https://qr.wilo.com/458

• Lifting unit assembly instructions Article number: 6097576 (included in the scope of delivery!)  Emergency drainage assembly instructions Article number: 6097581

#### 5.2 Symbols used in the assembly instructions



Danger of hand injuries (being crushed, cut)



Personal protective equipment: Wear protective gloves



Personal protective equipment: Wear safety glasses



Read the installation and operating instructions



Classification of the required safety gloves



Classification of the required safety alasses



Knife required



6 mm drill required



Drill required



Hammer required



Screwdriver for Phillips-head screws reauired



Screwdriver for interior hexagonal head screw required



Screwdriver for Torx screws required

#### 5.3 Installing the lifting unit

- NOTICE! Only use the included lubricant for installation.
- Refer to the included assembly instructions for the individual installation steps.

#### 6 Operation

#### 6.1 Switching on and off

- Insert plug into socket. The lifting unit is immediately ready for operation. We recommend switching the socket on and off using a separate switch.
- The drainage procedure starts automatically depending on the fill level of the tank.

#### 6.2 Initial commissioning

Perform a test run before normal operation. Check the impermeability of all pipe connection during the test run.

- Run clean water into the tank through every connected inlet. 1.
  - $\Rightarrow$  As soon as the maximum fill level is reached in the tank, the lifting unit switches on.
- 2. Check all pipe connections for impermeability.
- 3. Repeat the drainage procedure.

The test run has been successful if at least two drainage procedures have run smoothly. The unit is ready for normal operation.

## 6.3 More than three months of downtime

The water may evaporate in the tank during longer periods of downtime. Solids in the tank may become encrusted as a result and the unit may become clogged. To prevent damage to the unit, observe the following points for downtime longer than three months:

- Flush the lifting unit with clean water via two drainage procedures every three months.
- Drain the tank if there is a risk of frost.
- Perform a test run before normal operation.

## 7 Removal



## DANGER

## Danger of bacterial infection!

Hazardous germs form in sewage. Contact with the sewage will occur during removal. Observe the following points to avoid infection:

- Wear protective equipment.
  - Safety gloves (EN 388): uvex phynomic wet
  - Safety glasses (EN 166): uvex skyguard NT
  - Respiratory mask (EN 149): Half mask 3M series 6000 with filter 6055 A2
- Ventilate the room.
- Wipe up drips immediately.
- 1. Flush the tank: Run clear water into the tank through an inlet. Carry out at least two pumping procedures.
- 2. Close the gate valve at all inlets and discharge lines.
- 3. Disconnect the lifting unit from the mains supply: Pull the plug and switch off the fuse.
- 4. Empty the tank, e.g., via the emergency drainage or diaphragm hand pump.
- 5. Remove the inlets and discharge lines from the tank.
- 6. Remove the floor fixation.
- 7. Remove the lifting unit.
- 8. Seal all pipes tight.
  - Lifting unit is dismantled.
  - Disinfect the installation location and lifting unit.
  - Store the lifting unit or dispose of it in accordance with regulations.

## 8 Maintenance and repair

## 8.1 Cleaning the lifting unit

- Clean housing with a damp cotton cloth.
- Only use household cleaners.
- Do not use the following cleaners:

- Aggressive or scouring cleaners.
- Cleaners based on orange or lemon oils.
- Industrial cleaners.

## 8.2 Exchanging the active carbon filter

Exchange the active carbon filter annually to prevent unpleasant odours.

- 1. Remove the rectangular tank cover by pulling it up.
- 2. Remove the active carbon filter.
- 3. Insert the new active carbon filter. Suitable active carbon filters are available as accessories.
- 4. Reinsert the cover.

## 9 Fault

Backflow to the drainage fixtures is a sign that the lifting unit has a fault or has failed (water no longer drains). Depending on the amount of backflow, leakage may occur and fluid can escape. Observe the follow-ing points:

- Do not open the lifting unit.
- Ventilate the room.
- Do not drain any more sewage. Shut off the inlets.
- Contact customer service or emergency plumber.
- •

DANGER! Hazardous germs form in sewage. There is a danger of bacterial infection upon contact with sewage! Clean up leaked fluid. Dispose of cleaning cloth. Disinfect hands.

## 10 Information on the collection of used electrical and electronic products

Proper disposal and appropriate recycling of this product prevents damage to the environment and danger to your personal health.



## NOTICE

## Disposal in domestic waste is prohibited!

In the European Union this symbol may be included on the product, the packaging or the accompanying documentation. It means that the electrical and electronic products in question must not be disposed of along with domestic waste.

To ensure proper handling, recycling and disposal of the used products in question, please note the following points:

- Hand over these products at designated, certified collection points only.
- Observe the locally applicable regulations!

Please consult your local municipality, the nearest waste disposal site, or the dealer who sold the product to you for information on proper disposal. See www.wilo-recycling.com for more information about recycling.







Local contact at www.wilo.com/contact

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