

## Wilo-DrainLift WS 40 Basic, WS 40-50

**D** Einbau- und Betriebsanleitung

**GB** Installation and operating instructions

**F** Notice de montage et de mise en service

**I** Istruzioni di montaggio, uso e manutenzione

**H** Beépítési és üzemeltetési utasítás

**RUS** Инструкция по монтажу и эксплуатации

Fig. 1: WS 40-50 E

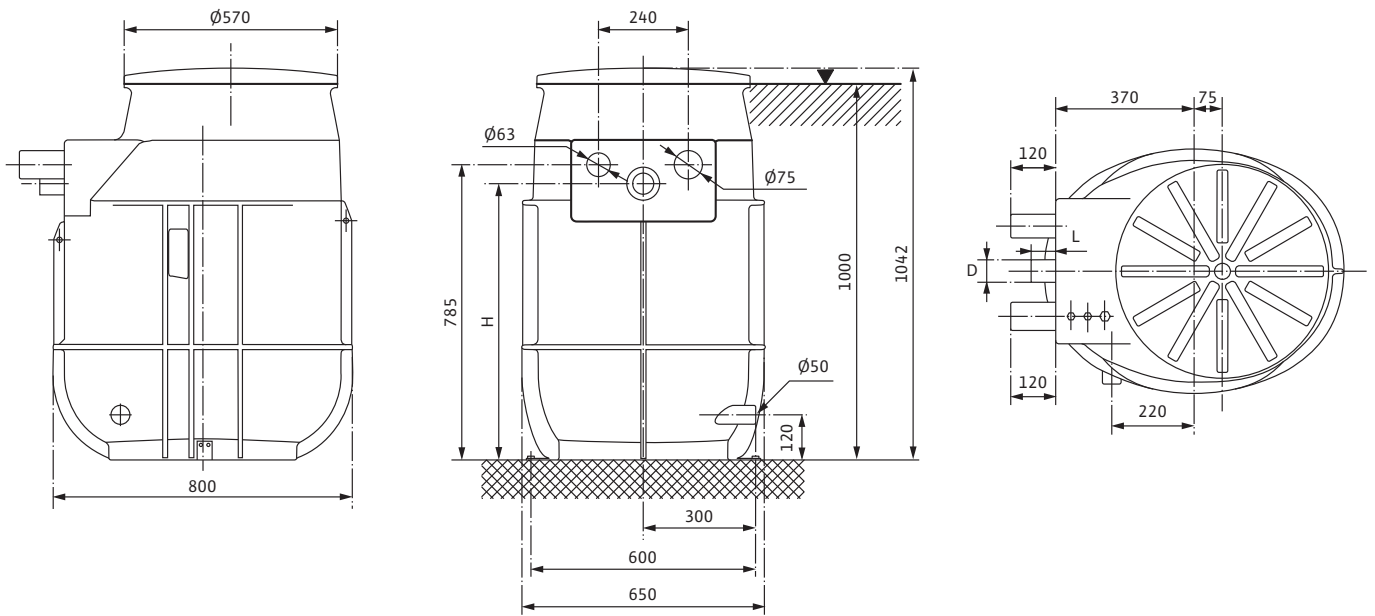


Fig. 2: WS 40-50 D

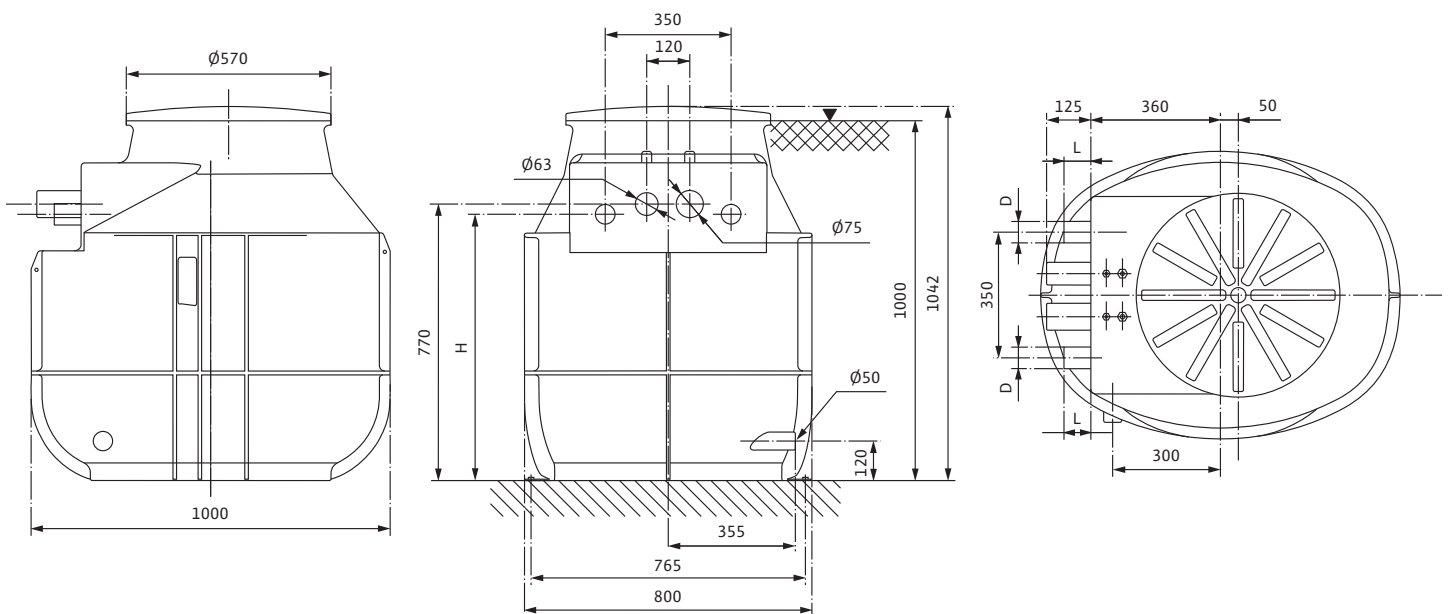


Fig. 3: WS 40 E/TC 40 BV (Basic)

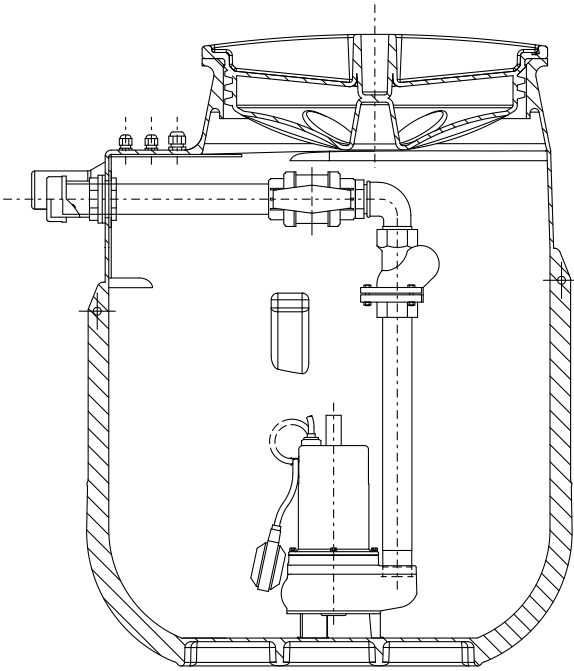


Fig. 4: WS 40 E/MTS 40

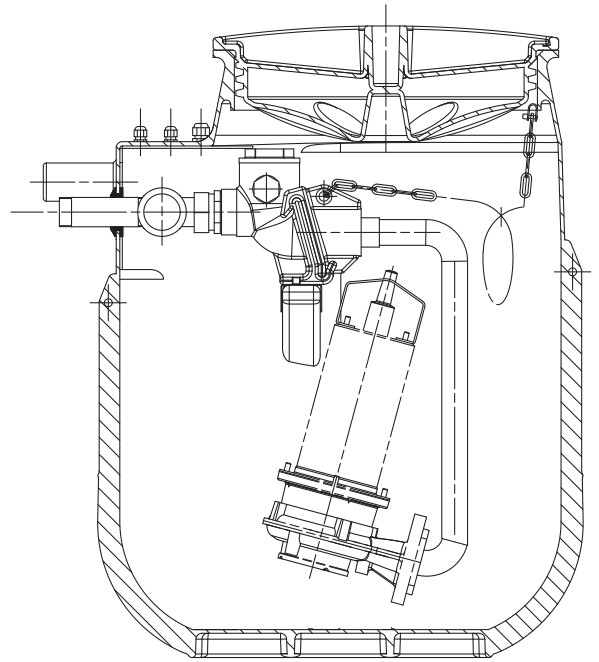


Fig. 5: WS 50 E/TP 65

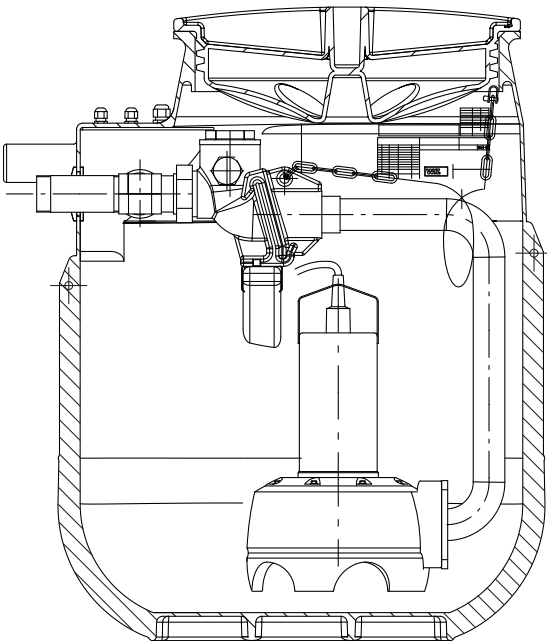


Fig. 6:

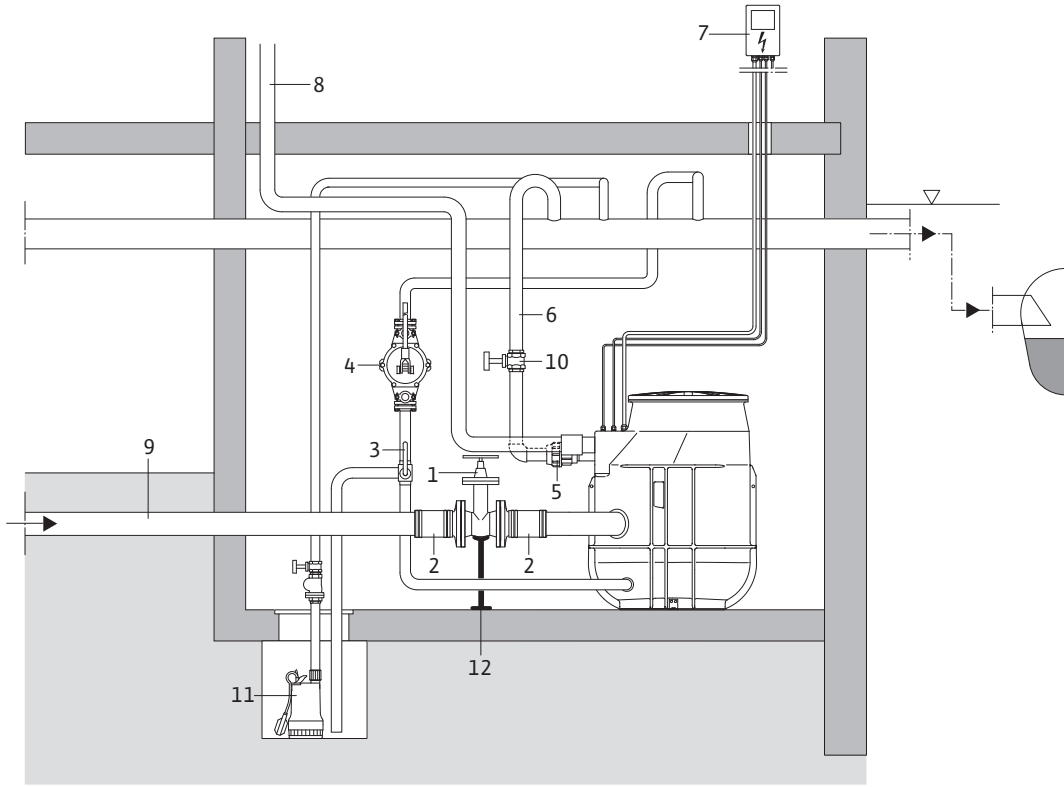
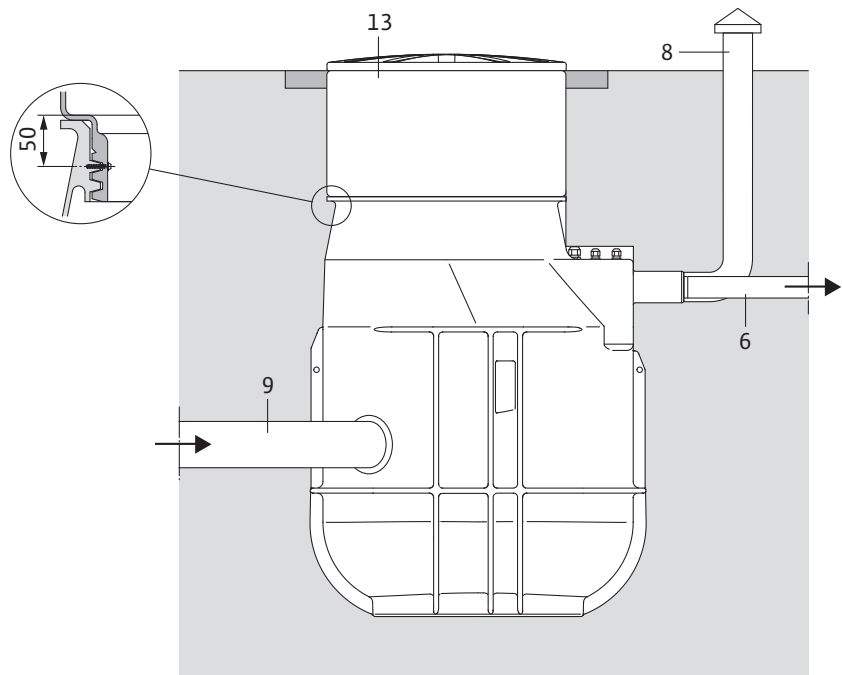


Fig. 7:



<b>D</b>	Einbau- und Betriebsanleitung	3
<b>GB</b>	Installation and operating instructions	19
<b>F</b>	Notice de montage et de mise en service	35
<b>I</b>	Istruzioni di montaggio, uso e manutenzione	53
<b>H</b>	Beépítési és üzemeltetési utasítás	70
<b>RUS</b>	Инструкция по монтажу и эксплуатации	86

## 1 General

### About this document

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

These installation and operating instructions are an integral part of the product. They must be kept readily available at the place where the product is installed. Strict adherence to these instructions is a precondition for the proper use and correct operation of the product. These installation and operating instructions correspond to the relevant version of the product and the underlying safety standards valid at the time of going to print.

EC declaration of conformity:

A copy of the EC declaration of conformity is a component of these operating instructions. If a technical modification is made on the designs named there without our agreement, this declaration loses its validity.

## 2 Safety

These operating instructions contain basic information which must be adhered to during installation and operation. For this reason, these operating instructions must, without fail, be read by the service technician and the responsible operator before installation and commissioning.

It is not only the general safety instructions listed under the main point "safety" that must be adhered to but also the special safety instructions with danger symbols included under the following main points.

### 2.1 Indication of instructions in the operating instructions



#### Symbols:

**General danger symbol**



**Danger due to electrical voltage**



NOTE

#### Signal words:

#### **DANGER!**

**Acutely dangerous situation**

**Non-observance results in death or the most serious of injuries.**

#### **WARNING!**

**The user can suffer (serious) injuries. "Warning" implies that (serious) injury to persons is probable if this information is disregarded.**

#### **CAUTION!**

**There is a risk of damaging the product/unit. "Caution" implies that damage to the product is likely if this information is disregarded.**

NOTE: Useful information on handling the product. It draws attention to possible problems.

### 2.2 Personnel qualifications

The installation personnel must have the appropriate qualifications for this work.

### 2.3 Danger in the event of non-observance of the safety instructions

Non-observance of the safety instructions can result in risk of injury to persons and damage to the product/unit. Non-observance of the safety instructions can result in the loss of any claims to damages.

In detail, non-observance can, for example, result in the following risks:

- failure of important product/unit functions,
- failure of required maintenance and repair procedures,
- danger to persons from electrical, mechanical and bacteriological influences,
- property damage.

#### 2.4 Safety instructions for the operator

The existing directives for accident prevention must be adhered to.

Danger from electrical current must be eliminated. Local directives or general directives [e.g. IEC, VDE etc.] and local energy supply companies must be adhered to.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

#### 2.5 Safety instructions for inspection and installation work

The operator must ensure that all inspection and installation work is carried out by authorised and qualified personnel, who are sufficiently informed from their own detailed study of the operating instructions.

Work on the product/unit must only be carried out when at a standstill. It is mandatory that the procedure described in the installation and operating instructions for shutting down the product/unit be complied with.

#### 2.6 Unauthorised modification and manufacture of spare parts

Modifications to the product are only permissible after consultation with the manufacturer. Original spare parts and accessories authorised by the manufacturer ensure safety. The use of other parts can nullify the liability from the results of their usage.

#### 2.7 Improper use

The operating safety of the supplied product is only guaranteed for conventional use in accordance with Section 4 of the operating instructions. The limit values must on no account fall under or exceed those specified in the catalogue/data sheet.

### 3 Transport and interim storage

The system and individual components are delivered on a pallet.

Immediately after receiving the product:

- Check product for transport damage.
- In the event of damage in transit, take the necessary steps with the forwarding agent within the respective time limits.



**WARNING! Risk of injury!**

**Improperly securing the load during transport and interim storage of the product can lead to personal injury.**

**During transport, make sure the product is stable.**



**CAUTION! Risk of damage!**

**Incorrect transport and interim storage can cause damage to the product.**

- **Only transport the product on the pallet and only use approved handling equipment.**
- **During transport, check for stability and avoid mechanical damage.**
- **Prior to installation, store the product on the pallet so that it remains dry and is protected from the sun.**

### 4 Intended use

The DrainLift WS 40–50 sewage lifting unit is an automatic sewage lifting unit according to EN 12050 for collecting and pumping sewage which is free of faeces or which contains faeces for the backflow-proof drainage from building discharge points and properties below the backflow level.

Here, the unit can both be installed and operated in the building as well as outside of the building as an underground pumps station.

Sewage (grey water) which is free of faeces or rainwater, or for some pump types, sewage containing faeces from the domestic area, may be introduced in accordance with EN 12056-1.

The correspondingly marked unit types in the tables under 5.4.1 and 5.4.2 comply with EN 12050-1 and are therefore suitable for pumping sewage containing faeces. No explosive or harmful substances may be introduced in high concentrations, such as solid substances, debris, ashes, garbage, sand, plaster, cement, lime, mortar, fibrous materials, textiles, paper towels, diapers, cardboard, coarse paper, synthetic resins, tar, kitchen waste, greases, oils, slaughterhouse waste, disposal of slaughtered animals and animal waste (liquid manure, etc.), toxic, aggressive and corrosive substances, such as heavy metals, biocides, pesticides, acids, bases, salts, cleaning agents and disinfectants, dish-washing or laundry detergents, and such which have a high degree of foam formation or swimming-pool water.

If greasy sewage should accumulate, a grease trap is to be installed.

According to EN 12056-1, no sewage from drainage objects may be introduced which lie above the backflow level and can be drained by means of gravity.



NOTE: During installation and operation, be sure to observe the nationally and regionally valid standards and regulations.

The specifications in the operating instructions of the switchgear are also to be observed.



**DANGER! Risk of explosion!**

**Sewage containing faeces in collection reservoirs can lead to gas accumulation, which can ignite as a result of improper installation and operation.**

- **If the unit is used for sewage containing faeces, the valid regulations for potentially explosive areas are to be observed.**



**WARNING! Health hazard!**

**Due to the used materials, the sewage lifting unit is not suitable for pumping potable water! Contact with sewage poses a health hazard.**



**CAUTION! Risk of damage!**

**Inappropriate materials in the system can cause damage to the product.**

- **Never introduce solids, fibrous substances, tar, sand, cement, ash, coarse paper, paper towels, cardboard, debris, rubbish, animal waste, grease, or oil into the drains!**

**If greasy sewage should accumulate, a grease trap is to be installed.**

- **Improper use and overstraining lead to material damage to the product.**

**The maximum possible inflow must always be less than the volume flow of a pump at the respective duty point.**

**Application limits**

The unit is not designed for permanent operation!

The specified maximum volume flow applies for intermittent operation (S3 – 15 %).



**WARNING! Risk of burns!**

**Depending on the operating status of the installation, the entire pump can become very hot. Touching the pump can cause burns.**



**WARNING! Danger due to overpressure!**

**If the lowest suction head is more than 5 m, this will cause overpressure in the reservoir should the unit malfunction. If this happens, there is a risk that the reservoir will burst. In case of malfunctions, the inlet must be blocked off immediately!**

The intended use includes complying with these instructions.

Any use going over and beyond the intended use is considered to be improper.



## 5 Product information

### 5.1 Type key

<b>Example:</b>	WS 40 E/TC 40 (1~) BV WS 40 D/MTS 40
WS	Series: Wilo pumps station Synthetic
40	Nominal diameter of the pressure pipe [mm] 40, 50
S	E = Single-pump system D = Double-pump system
TC 40	Selected pump type: WS 40 with TC 40, MTS 40 WS 50 with TP 50, TP 65
(1~)	1~: Single-phase version 3~: Three-phase version
BV	Version with non-return ball valve

5.2 Technical data	Comments	
Operating mode	S3 – 15%	
Maximum inlet:	15% of the pump volume flow	Of one pump at the duty point
Maximum cover load, short-term:	200 kg	For ground installation
Max. admissible pressure in the pressure pipe:	6 bar	1.5 bar for WS 40 Basic
Discharge pipe connection	DN 40/DN 50	Depends on pump
Inlet connection	DN 100/DN 150	
Bleeding connection	DN 70	
Cable conduit connection	DN 50	
Max. permissible fluid temperature:	40 °C	WS 40 Basic 60 °C permissible for max. 3 min.
	35 °C	In connection with pump MTS 40, TP 50, TP 65
Max. permissible ambient temperature:	40 °C	
Max. permissible ball passage	40 mm	Version WS 40 Basic only
	See data sheet/catalogue	Depends on pump for WS 40–50
Max. permissible ground water level (from the bottom edge of the reservoir):	500 mm	
	1000 mm	With sump length extension for single-pump stations only

### 5.3 Dimensions

For main dimensions [mm], see:

- Fig. 1: Single-pump station
- Fig. 2: Double-pump station

	WS 40 Basic with pump		WS 40 for pump		WS 50 for pump	
	TC 40 BV		MTS 40/...		TP 50, TP 65	
	Single	Double	Single	Double	Single	Double
Total volume [l]	255	400	255	400	255	400
with extension	325	470	325	470	325	470
Unit height [mm]	1040	1040	1040	1040	1040	1040
with extension	1340	1340	1340	1340	1340	1340
H [mm]	770	770	735	745	735	745
L [mm]	100/75	100/75	95	100	65	75
D	∅ 50/G 2	∅ 50/G 2	G 1 ½	G 1 ½	G 2	G 2

#### 5.4 Versions

For information regarding the current and power consumption  $P_1$ : see rating plate of the pump

##### 5.4.1 Version WS 40 Basic (pump built-in)

Sewage lifting unit complies with DIN EN 12050-2 (sewage free of faeces)

Type	Voltage [V]	Switchgear	Level measurement	Alarm signal mains-dependent
WS 40E/TC 40 (1~)-BV	1~230	-	Float switch	-
WS 40E/TC 40 (3~)-BV	3~400	EC-Drain		•
WS 40D/TC 40 (1~)-BV	1~230	PL2-WS(1~)	Level sensor	•
WS 40D/TC 40 (3~)-BV	3~400	PL2-WS(3~)		•

• = available – = not available

##### 5.4.2 Version WS 40-50 (pump must be ordered separately)

Sewage lifting unit complies with DIN EN 12050-1 (sewage containing faeces)

- Pump TP 50, TP 65: only for using TP 50F-0,75 and TP 65F
- Pump MTS 40: also permissible in accordance with DIN EN 12050-1

Type	Usable Pump	Voltage [V]	Switchgear (to be ordered separately)	Level measurement	Alarm signal Mains-dependent
WS 40E/	MTS 40	1~230	PL1-WS(1~)		•
	MTS 40	3~400	PL1-WS(3~)		•
WS 40D/	MTS 40	1~230	PL2-WS(1~)	Level sensor	•
	MTS 40	3~400	PL2-WS(3~)		•
WS 50E/	TP 50, TP 65	1~230	PL1-WS(1~)		•
	TP 50, TP 65	3~400	PL1-WS(3~)		•
WS 50D/	TP 50, TP 65	1~230	PL2-WS(1~)		•
	TP 50, TP 65	3~400	PL2-WS(3~)		•

• = available

CE conformity	CE conformity
WILO 05	WILO 05
<b>EN 12050-2</b> Sewage lifting unit for sewage free of faeces DN 40, DN 50 <b>Lifting power</b> – see pump curve <b>Noise level</b> – NPD <b>Corrosion protection</b> – inox/composite corrosion-resistant materials	<b>EN 12050-1</b> Sewage lifting unit for sewage containing faeces DN 40, DN 50 <b>Lifting power</b> – see pump curve <b>Noise level</b> – NPD <b>Corrosion protection</b> – inox/composite corrosion-resistant materials

Please state all the information on the unit rating plate when ordering spare parts.

#### 5.5 Scope of delivery

##### WS 40 Basic

Sewage lifting unit WS 40 ..., comprising PE reservoir and built-in pipework, including non-return valve, clamp bolting on the pressure side, built-in pump, shut-off ball cock (PVC), level measurement as well as an external switchgear, depending on the pump and unit type (see table under 5.4.1).

- 1 reservoir cover with gasket
- 1 keyhole saw  $\varnothing$  124
- 1 inlet gasket DN 100 (for pipe  $\varnothing$  110 mm)
- 1 hose section PVC  $\varnothing$  50 mm with clamps for diaphragm hand pump connection
- Fixation material
- Installation and operating instructions

**WS 40-50**

Sewage lifting unit WS 40-50 ..., comprising PE reservoir with installed stainless steel pipe-work, red brass gate valve, surface coupling (PUR) with built-in non-return ball valve.

- 1 reservoir cover with gasket
- 1 keyhole saw  $\varnothing$  124
- 1 inlet gasket DN 100 (for pipe  $\varnothing$  110 mm)
- 1 hose section PVC  $\varnothing$  50 mm with clamps for diaphragm hand pump connection
- Pump(s), switchgear and level control according to order (see table under 5.4.2)
- Fixation material
- Installation and operating instructions

**5.6 Accessories**

Order accessories separately (see also catalogue/price list)!

The following accessories are available:

**General accessories**

- Sump length extension, 300 mm, with gasket
- Inlet gasket KIT (gasket for pipe  $\varnothing$  110 mm with keyhole saw)
- Inlet gasket KIT (gasket for pipe  $\varnothing$  160 mm with keyhole saw)
- Gate valve inlet DN 100 made of plastic
- Gate valve inlet DN 150 made of plastic
- Diaphragm hand pump (R 1½) (without hose)
- Breakdown barrier (Zener barrier) in the housing with connecting cable for the use of a level sensor in potentially explosive areas.
- Ex-rated cut-off relay for the use of float switches in potentially explosive areas
- Alarm switchgear
- Float switch for alarm signal

**Accessories specifically for version WS 40 Basic:**

- Clamp bolting for connection to PE discharge pipe (onsite)
  - 2" (female thread) on 63 mm outer  $\varnothing$
- Gate valve pressure pipe(s)
  - Gate valve 1½"
  - Gate valve 2"

**Accessories specifically for version WS 40-50:**

Clamp bolting for connection to PE discharge pipe (onsite)

- Unit type WS 40:
  - 1½" (female thread) on outer  $\varnothing$  50 mm
  - 1½" (female thread) on outer  $\varnothing$  63 mm
- Unit type WS 50:
  - 2" (female thread) on outer  $\varnothing$  63 mm
  - 2" (female thread) on outer  $\varnothing$  75 mm
- Vacuum interrupter 1"

**6 Description and function****6.1 Description**

The sewage lifting unit WS 40-50 is available as a single-pump system (Fig. 1: WS ... E) or as a double-pump system (Fig. 2: WS ... D), in the versions WS 40 Basic and WS 40-50. All units are equipped with non-return valves so that it is no longer required that a non-return valve be installed in the pressure pipe in accordance with EN 12056.

**WS 40 Basic version:**

- **Fig. 3:** PE reservoir with cover which can be walked on, in this a pump on the reservoir floor, built-in pipework made of galvanised steel and PVC, including PVC ball valve and cast iron non-return ball valve, as well as level-dependent control. The pump is controlled using a float switch or level sensor, depending on the pump and type, with or without an external switchgear (everything within the scope of delivery; see table under 5.4.1). The pressure pipe can be disconnected from the ball valve for installing and removing the pump via the union nut.

**WS 40–50 version:**

- **Fig. 4 and 5:** PE reservoir with cover which can be walked on, surface coupling with built-in non-return ball valve made of plastic, mounted on cross member in the reservoir, discharge pipe for accommodating the suspended pump (MTS 40, TP 50 or TP 65), red brass gate valve, pipework completely made of stainless steel, stainless steel chain for installing/removing the pump. Switchgear and level measurement are not included in delivery with the WS 40–50 version and must be ordered separately (see table under 5.4.2).

**Types of installation**

The unit can be used in two types of installations. For installation examples, see:

- **Fig. 6:** As sewage lifting unit inside buildings (floor-mounted installation)
- **Fig. 7:** As pumps station in ground installation outside of buildings (concealed floor installation)

▽ = backflow level (usually street level)

1. Gate valve DN 100 (accessory)
2. Flange piece DN 100 (accessory)
3. 3-way cock (accessory)
4. Diaphragm hand pump (accessory)
5. Clamp bolting (accessory)
6. Pressure pipe to the main collection pipe.
7. Wilo-Drain switchgear (see tables under 5.4.1 and 5.4.2)
8. Ventilation (connection DN 70)
9. Inlet (connection DN 100)
10. Gate valve (accessory)
11. Drainage pump (e.g. Wilo-Drain TMW)
12. Valve support for relieving weight (onsite)
13. Sump length extension (accessory)

**6.2 Function**

The introduced sewage is collected in the collection tank of the lifting unit. It is introduced via a sewage inlet pipe (DN 100 or DN 150), which can be connected to any of the marked reservoir areas (DN 100 included in delivery).

Once a certain filling level has been reached, the pump pumps the substances being conveyed via the pressure pipework into the externally connected sewage line. The built-in non-return valve prevents backflow into the unit.

The double-pump systems work with a base-load and a peak-load pump. In order for both pumps to be evenly loaded, there is pump cycling after every pumping operation. If a pump malfunction occurs, the second pump automatically becomes the base-load pump.

**7 Installation and electrical connection**

If the product is delivered in single components, these are to be assembled in accordance with these installation and operating instructions and all protective equipment is to be activated. Non-observance of the information and warnings regarding mounting and installation will impair the safety of the product/personnel and will void the given explanations regarding safety.

**DANGER! Risk of fatal injury!**

**Inappropriate installation or improper electrical connection can be life-threatening.**

- **The installation and electrical connection may only be carried out by qualified personnel in accordance with the applicable regulations!**
- **Accident prevention regulations must be observed!**

**DANGER! Danger of suffocation!**

**Toxic or health-hazardous substances in sewage sumps can lead to infections or suffocation.**

- **For safety reasons, make sure a second person is present at all times when you are working on sumps.**
- **Make sure the installation location is sufficiently ventilated.**

**7.1 Preparing for installation****CAUTION! Risk of damage!**

**Incorrect installation can result in property damage.**

- **Only use qualified personnel for installation work!**
- **Observe national and regional regulations!**
- **Observe the installation and operating instructions for the accessories!**

Select a suitable place for installing the sump (Fig. 6/Fig. 7).

- Observe the dimensions according to the installation plan (Fig. 1/Fig. 2).
- Take into account the position of the inlet connection, pressure outlet and ventilation connection.
- Take into account the cable length of pump and level control system so that they can be lifted out of the sump.
- Prepare the inlet pipe, ventilation pipe and pressure outlet pipe onsite.

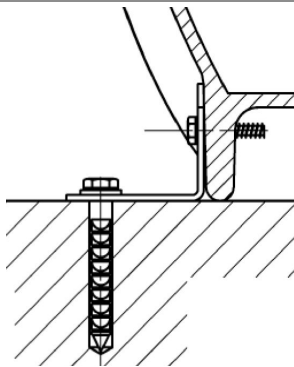
## 7.2 Setup/installation

### 7.2.1 Setup in buildings (floor-mounted installation)

**When installing lifting units, the regionally valid regulations in particular and the corresponding specifications of EN 12056 (gravity drainage stations within buildings) in general are to be observed!**

- In accordance with EN 12056-4, installation locations for lifting units must be sufficiently large so that the unit is freely accessible for operating and maintenance work.
- There must be sufficient working space of at least 60 cm in width/height available next to and above all parts which are to be operated and maintained.
- The installation location must be frost-proof, ventilated and well-lit.
- The installation surface must be horizontal and flat.
- Align the reservoir with pipes prepared onsite and connect the pipes according to 7.2.
- In accordance with EN 12056-4, sewage lifting units must be installed so that they cannot twist and turn. Units which threaten to float must be installed so that they are anti-buoyant.

Fig. 8: Buoyancy safeguard



Fix the unit to the floor with the enclosed fixation material (Fig. 8).

- To do this, fasten the angle to the circumferential rib of the reservoir floor with screws.
- Drill holes in the floor.
- Properly fix the unit to the floor with dowels and screws.

### 7.2.2 Ground installation outside buildings (concealed floor installation)

**Install and check the pumping station according to the regionally valid regulations and relevant directives, e.g. EN 1610 (Construction and testing of drains and sewers)!**

**CAUTION! Risk of material damage!**

**Environmental influences can lead to damage to the product.**




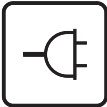


- **In the case of ground installation outdoors, observe the regional depth of frost penetration. If the unit, and in particular the reservoir pressure outlet is located in the frost-endangered range, shut down the unit during frost periods and drain the unit and pressure pipe.**
- **If the ground water is high, the unit is in danger of becoming buoyant! Observe the maximum ground water levels! (see 5.2 Technical data)**
- Dig a pit corresponding with the overall height of the unit; Observe the depth of the inlet pipe and permissible connection area in the reservoir (Fig. 9)! If necessary, provide a sump length extension (accessory).
- Align the reservoir with pipes prepared onsite and connect the pipes according to 7.2.
- Place the unit in a sand bed (not cohesive, grain range 0-32 mm, minimum bed thickness 200 mm), shake it in, and align it perpendicular and flush with respect to the upper edge of the ground.
- Fill the excavation pit with layers of non-cohesive soil (sand/gravel, grain range up to 32 mm) and compact properly. Do not push the unit out of alignment or deform it.
- A leakage test is to be performed on the unit in accordance with the relevant regulations.

### 7.3 Connecting the pipes

All pipes must be mounted without tension. No pipeline forces or torques may act on the unit. The pipes (incl. valves) are to be fastened and supported such that neither tensile nor compressive forces act on the unit.

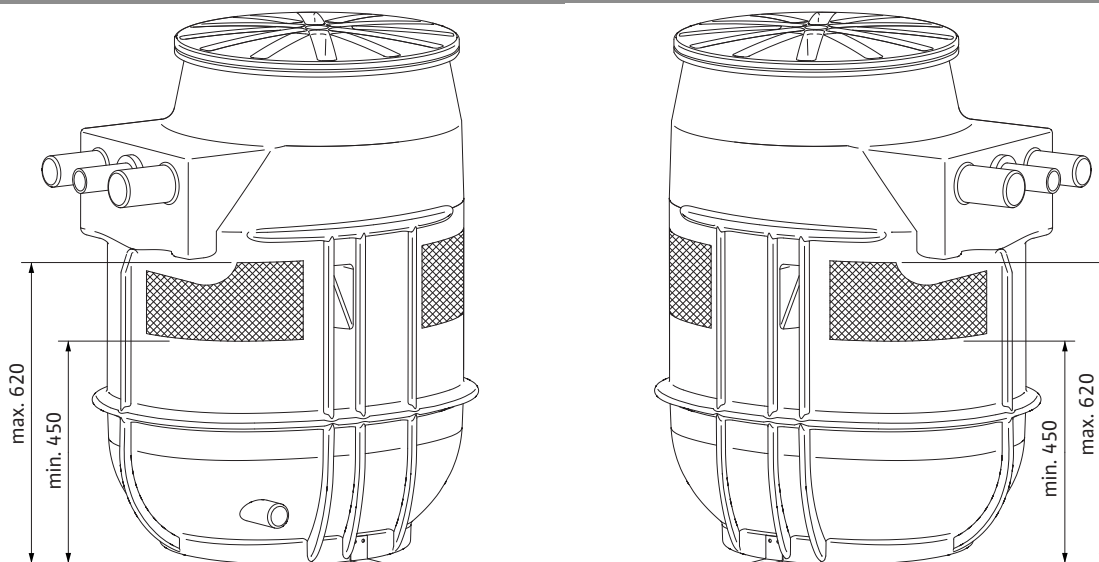
The following symbols on the reservoir indicate possible pipe connections:

Symbol	Pipe connection	Symbol	Pipe connection
	Inlet pipe (reservoir inlet area)		Ventilation pipe
	Pressure pipe		Cable conduit

#### 7.3.1 Inlet connection

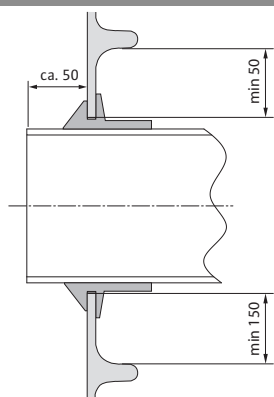
- Install the inlet pipe so that it can drain by itself. Do not reduce the pipe diameter in the direction of flow.

Fig. 9: Reservoir inlet area (shaded)



- Measure the position of the introduction of the inlet pipe in the reservoir. Observe the minimum connection height for inlet in the reservoir (Fig. 9, 10)!
- Select the position so that the inlet pipe discharges perpendicularly on the reservoir surface; observe the minimum distance of 50 mm from the outer edge of the drilled hole to the adjacent edges and finning (Fig. 10)!

Fig. 10: Drilled hole inlet



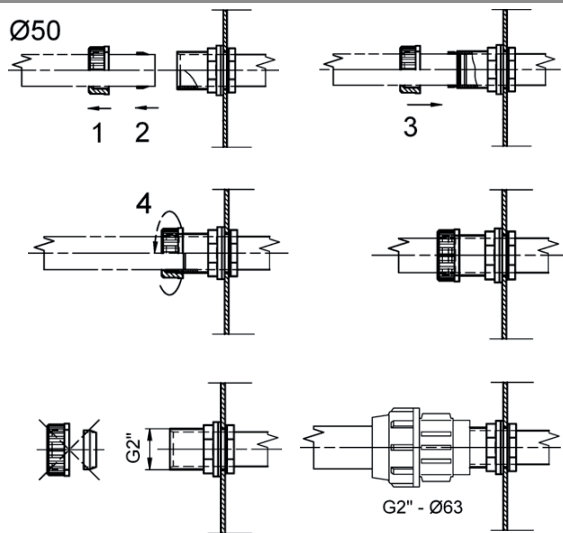
- Drill a hole for the inlet with a keyhole saw (within the scope of delivery) in one of the reservoir surfaces intended for this purpose (Fig. 9) (observe supplementary sheet key-hole saw).
- Deburr and smooth the cut surface for a clean seal fit.
- Insert the gasket, moisten the inside area of the gasket with lubricant and push the inlet pipe in approx. 50 mm depth (Fig. 10).

- In the inlet pipe in front of the reservoir, a gate valve is required when the unit is installed within a building in accordance with EN 12056-4 (Fig. 6).

### 7.3.2 Pressure pipe connection

- The discharge pipeline is to be installed so that it is frost-proof.
- For units in buildings, to protect against any backflow out of the main public sewer, the discharge pipeline is to be designed as a "pipe loop", the bottom edge of which must lie at the highest point above the locally defined backflow level (usually at street level) (see also Fig. 6).
- In the case of the WS 40-50 D double-pump system, the pipeline connection must be established onsite.

Fig. 11: Clamp bolting (discharge pipe connection for unit type WS 40 Basic)



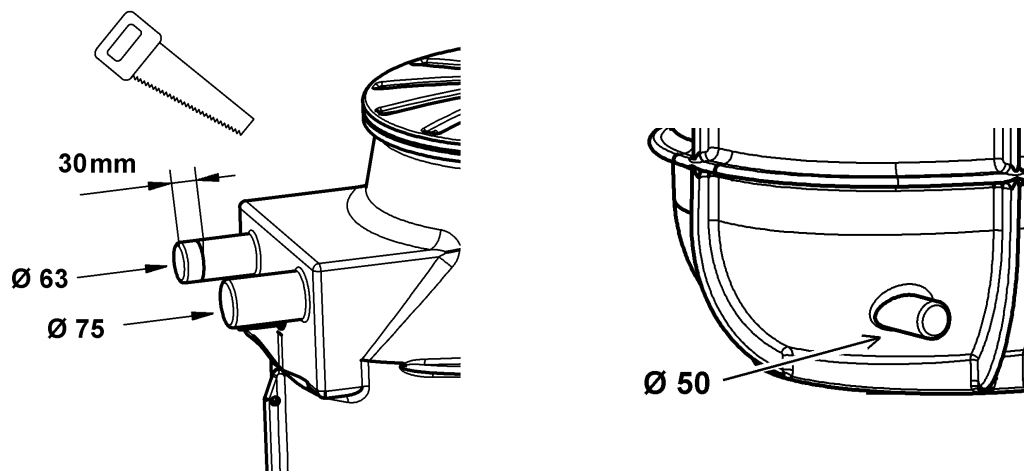
- Connect the discharge pipeline.
- The **unit type WS 40 Basic** is equipped with a clamp bolting and can also be connected using commercially available thread fittings (Fig. 11).
- The **WS 40-50 units** can also be connected using commercially available thread fittings.

### 7.3.3 Ventilation pipe connection

Connect the ventilation pipe (pipe system  $\varnothing 75$  with sealed plug-in sleeves) to the reservoir connecting piece ( $\varnothing 75$ ) (Fig. 12).

- Saw off 30 mm from end of connecting piece.
- Remove burrs and any excess material.
- Secure the ventilation pipe against slipping out and install pipe with a downward incline toward the unit.

Fig. 12: Ventilation, cable conduit and emergency drain connections



### 7.3.4 Cable conduit connection

For cables installed in a ground installation, the connecting piece ( $\varnothing 63$ ) is to be used, or connecting piece ( $\varnothing 75$ ) in combination with the ventilation pipe (Fig. 12).

- Saw off 30 mm from end of connecting piece.

- Remove burrs and any excess material.
- Use a commercially available pipe system with sealed plug-in sleeves as a cable conduit and push onto the sawed-off connecting piece.



NOTE: To facilitate the laying of the connection lines (pump/level control), pull the tie into the installed ventilation/cable conduit installed on site.

### 7.3.5 Emergency drain connection

It is recommended that an emergency drain be connected (diaphragm hand pump as accessory). This connection is established at the low-lying connecting piece ( $\varnothing$  50) (Fig. 12, see also Fig. 6).

- Saw off 30 mm from end of connecting piece.
- Remove burrs and any excess material.
- Connect the pipe ( $\varnothing$  50) using the included hose and hose clamps.

## 7.4 Installation

Remove coarse dirt from the inside of the plastic sump.

### 7.4.1 Pump installation

#### WS 40 Basic version (Fig. 3):

The pumps are already installed. Remove the transport packaging (cardboard) from the reservoir.

#### WS 40-50 version (Fig. 4 and 5):

- Follow the installation and operating instructions for the pump!
- Disconnect the discharge pipe from the coupling.
- Install the pump and discharge pipe outside of the plastic sump with the enclosed screws and gasket.



#### CAUTION! Danger of damage to the pump!

**The pump may be damaged if it is not handled correctly. Only suspend the pump by the handle using a chain, never suspend by the connecting/float cable!**

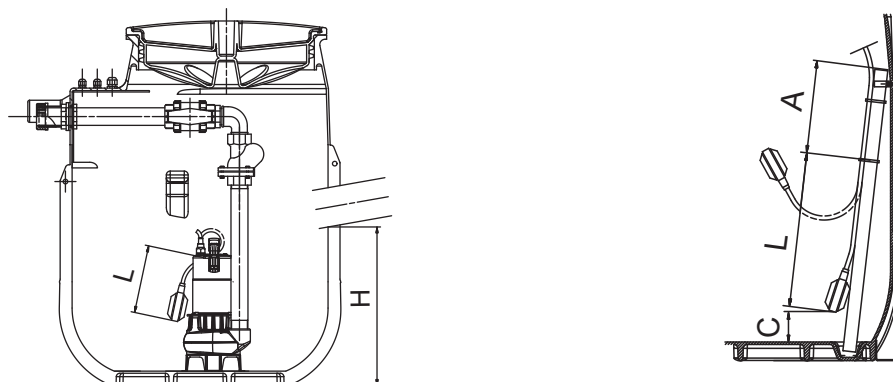
- **When using chains, these must be connected to the carrying handle using a shackle. Only structurally approved lifting devices may be used.**
- Lower the pump with discharge pipe into the unit by the chain and engage it in the coupling.
- Hang the chain on a prepared place on the reservoir wall so that it does not go into the fluid.

### 7.4.2 Installing the level control

Follow the installation and operating instructions for the level control!

Adjust the float switch for the single-pump units in accordance with Fig. 13. Here, the float switch (enclosed separately for 3~ pumps) can be fastened both to the pump as well as to the removable holding pipe using the enclosed cable ties.

Fig. 13: WS 40 Basic level control

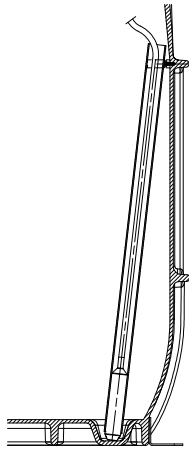


	L	A	C	H
	[mm]			
TC 40	240	350	70	460 min.



The level control system is to be installed onsite on the WS 40 Basic double-pump units (WS 40D) and WS 40-50 units. For these systems, the level is controlled via a level sensor (to be ordered separately for the WS 40-50).

Fig. 14: WS40-50 level control



The sensor is stuck in the holding pipe of the level system to protect it (Fig. 14).

#### Level adjustment



**CAUTION! Danger of damage to the unit!**

**Improper level adjustment can lead to operating faults or to the failure of the unit. When adjusting the switching level, keep the following values in mind:**

- **Switch-on level (ON) = Base of the inlet pipe**
- **Switch-off level (OFF) = Bottom edge of pump motor**



#### Switching volume/level adjustment

NOTE: The following table provides guide values for level adjustment/switching volumes of the individual versions.

The switch-off level and minimum switch-on level must not be fallen short of. The switch-on level can be adjusted between the minimum and maximum level, depending on the type of unit. It should always be selected to be as great as possible, however, in order to reach a high switching volume, but it should not lie above the base of the inlet pipe (danger of backflow in the inlet pipe).

The specifications for the switch-on/-off level [mm] refer to the inner reservoir floor.

WS 40 Basic	Switching volume				
	Level OFF [mm]	Level ON [mm]	for min. switch-on level		
			Level ON [l]	for max. switch-on level Level ON [mm] [l]	
WS 40 E/TC40 (1~) BV	130	340	65	not adjustable	
WS 40 E/TC40 (3~) BV	130	340	65	460	100
WS 40 D/TC40 (1~) BV	130	340	100	460	160
WS 40 D/TC40 (3~) BV	130	340	100	460	160

WS 40-50	Switching volume				
	Level OFF [mm]	Level ON [mm]	for min. switch-on level		
			Level ON [l]	for max. switch-on level Level ON [mm] [l]	
WS 40 E/MTS40	200	400	60	460	80
WS 40 D/MTS40	200	400	100	460	130
WS 50 E with TP50	200	400	60	460	80
WS 50 E with TP65	200	400	60	460	75
WS 50 D with TP50	200	400	105	460	135
WS 50 D with TP65	200	400	105	460	130

#### 7.4.3 Installing pipes and connecting cable

When installing in a building, either guide the cable ends to the switchgear from the pump connecting cable and the level sensor/float switch

- through the existing threaded cable connections on the reservoir
- or, in the case of ground installation (see 7.2.4): through the ventilation pipe/cable conduit.
- Allow an adequate cable length for the pump and level control system so that they can be lifted out of the sump.

- Tie all pipes and connecting cables together with the cable ties provided and suspend over the upper horizontal part of the internal pipework so that they cannot enter the fluid or the suction mouth of the pump. Do not crush or kink pipes!

#### 7.4.4 Fitting the sump cover



##### **WARNING! Risk of injury!**

**In the case of ground installation, people may fall into the open sump and seriously injure themselves. Make sure the sump cover is on tight and secure it against being opened without authorisation!**



##### **CAUTION! Danger of leakage!**

**The gasket must not slip into the threads when screwing on. When setting up inside a building, the cover is to be tightened firmly so that the connection is pressure-tight and no water or gas can escape.**

- Before screwing on the cover, push the gasket over the outer thread up to the radius.
- As a safeguard against the cover being opened without authorisation, particularly in the case of ground installation, this should be locked in place with the enclosed screw (Fig. 15).
  - To do this, drill a hole with a  $\varnothing$  of 3 mm in the prefabricated recess in the outer ribbed outlet through the cover (item 1) and reservoir flange (item 2) or extension, at approx. a  $10^\circ$  angle. When doing so, do not damage the cover gasket (item 3)!
  - Afterwards, screw in the screw.

Fig. 15: Securing the sump cover



#### 7.4.5 Installing optional accessories

Optional accessories are to be ordered separately. See the catalogue/price list.

##### **Sump length extension**

Observe the information sheet for the sump length extension!



##### **CAUTION! Danger of instability!**

**If installing more than one extension and then also having an installation depth of more than 1.3 m, the static safety of the unit is no longer guaranteed. The maximum permissible installation depth is 1.3 m!**

If necessary, a **maximum of one** extension (300 mm) can be set (Fig. 7, item 13).

- Screwing in with a gasket is done the same way as with the installation of the sump cover (see 7.3.4).
- For further installation, see the information sheet for the sump length extension.

##### **Vacuum interrupter**

Observe the information sheet for the vacuum interrupter!

The vacuum interrupter prevents the unwanted sucking empty of the unit due to under-pressure in the subsequent pressure pipe.

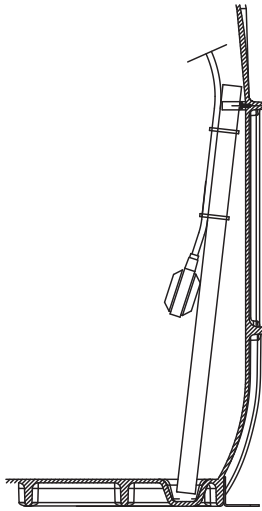
A vacuum interrupter can be installed in WS 40–50 units (accessory) (not possible in Basic units).

- The connection is made at the fixed part of the coupling.
- For installation, see the information sheet of the vacuum interrupter.

### Float switch for high water alarm

To signal a water level which is too high in the reservoir (high water alarm), a float switch (accessory) can be installed. It is installed on the holding pipe of the level system.

Fig. 16: High-water float switch (optional)



- Pull the holding pipe out of the retaining device.
- Fasten the float switch with the cable to the holding pipe at the desired height with the enclosed cable ties.
- Insert the holding pipe again and make sure the end of the pipe is correctly positioned in the reservoir recess (Fig. 16). The float switch must be able to move freely!
- Pull the cable of the float switch through a free threaded cable connection in the reservoir or run it through the cable conduit with the other cables.
- Connect it to the switchgear or separate alarm switchgear (accessory).

### 7.5 Electrical connection



#### **DANGER! Risk of fatal injury!**

**Improper electrical connections can lead to fatal electrical shocks.**

- **Only allow electrical connections to be made by electricians licensed by the local energy supply company and according to the valid regulations!**
- **Follow the installation and operating instructions for the pump, switchgear, level control device and other accessories.**
- The current type and voltage of the mains connection must correspond to the details on the pump rating plate.
- Provide a fuse on mains side as well as a residual-current-operated protection switch according to the valid regulations.
- Check whether the cable ends of the pump connecting cable and level control device have been installed according to 7.3.3 and connect according to the labels on the terminal strips in the switchgear.
- Only attach the switchbox so far away from the unit so that there is enough cable length in the reservoir available to be able to lift the pump out of the reservoir for later maintenance work.
- Earth the pumps/unit according to regulations.
- For three-phase versions, apply a clockwise rotating field.

## 8 Commissioning and operation

It is recommended to have commissioning carried out by the Wilo customer service.

### 8.1 Checking the unit



#### **CAUTION! Risk of damage!**

**Dirt and solids as well as incorrect commissioning can lead to damage to the unit or individual components during operation.**

- **Before commissioning, clean the entire unit to remove contaminants, particularly solids.**
- **Follow the installation and operating instructions for the pump, switchgear, level control device and other accessories.**

Commissioning may only occur when the unit has been installed according to these installation and operating instructions and all protective measures are in place and the relevant safety regulations, VDE regulations as well as regional regulations have been met.

Check for the presence of and proper versions of all required components and connections (inlets, discharge pipe with check valve, ventilation via the roof, floor fixation, electrical connection).

## 8.2 Commissioning

Commission as follows:

- Open the reservoir cover.
- Check to make sure the pump(s) and pipes have been installed so they are (pressure) tight.
- Establish the mains connection.
- Put the pump, switchgear, level control device and other accessories into operation.
- Completely open the gate valve in the pressure pipe.
- Fill the unit via the connected inlet.
- Check the function of the unit (test run): Observe at least two switch-on/switch-off cycles and check that the pump(s) is/are functioning properly and that the level control is set correctly. If there is backflow into the inlet pipe, which can lead to problems on the connected objects (toilet, shower, etc.), the level control has to be corrected accordingly.
- Install the reservoir cover and check to make sure it's tight. Mount the lock screw.

The unit is ready for operation.

## 8.3 Decommissioning

The installation must be decommissioned before performing maintenance work or disassembly.



### **WARNING! Risk of burns!**

**Depending on the operating status of the installation, the entire pump can become very hot. Touching the pump can cause burns.**

**Allow the unit and pump to cool to room temperature.**

### **Dismantling and installation**

- Dismantling and installation by qualified personnel only!
- Disconnect the system from the power and secure it against being switched on.
- Depressurise any pressurised parts before work.
- Close the gate valves (inlet and pressure pipe)!
- Drain the collection reservoir (e.g. with diaphragm hand pump)!
- To clean, unscrew and remove the maintenance cover.



### **DANGER! Risk of infection!**

**If the unit or unit components are to be sent in for repairs, a used unit must be drained and cleaned before transport for hygiene reasons. Also, all parts which can be touched must be disinfected (spray disinfection). The parts must be packed in tear-proof, sufficiently large plastic bags so that they are tightly sealed and leak-proof. They are to be sent in without delay via instructed forwarding agents.**

For longer periods of non-use, check the unit for contaminants and clean if necessary.

## 9 Maintenance



### **DANGER! Risk of fatal injury!**

**There is risk of fatal injury due to electrical shock when working on electrical equipment.**

- **Before all maintenance and repair work, switch off the unit from the power supply and make sure it cannot be switched on by unauthorised persons.**
- **Work on the electrical part of the unit may only be carried out by a qualified electrician.**



### **DANGER!**

**Toxic or harmful substances in sewage can lead to infections or suffocation.**

- **Before carrying out maintenance work at the installation location, ventilate sufficiently.**
- **Use appropriate protective equipment to prevent the risk of infection while performing maintenance work.**
- **For safety reasons, make sure a second person is present at all times when you are working on sumps.**
- **Risk of explosion when opening (avoid open sources of ignition)!**
- **Observe the installation and operating instructions of the unit and the accessories.**

Before carrying out maintenance work and repairs, observe the "Decommissioning" chapter.

The system operator must make sure that all the maintenance, inspection and installation work is done by authorised and qualified personnel, who have acquainted themselves sufficiently with the system through a detailed study of the installation and operating instructions.

- Sewage lifting units are to be maintained by someone skilled to do so in accordance with EN 12056-4. The intervals must not exceed:
  - ¼ year in the case of commercial companies
  - ½ year for units in multi-family houses
  - 1 year for units in single-family houses.
- A maintenance report must be issued.



It is recommended to have the unit serviced and checked by the Wilo customer service.  
NOTE: When drafting a maintenance plan, expensive repairs can be avoided and fault-free operation of the unit can be achieved with a minimum of maintenance effort. Wilo customer service is available for commissioning and maintenance work.

After maintenance and repair work, install and connect the installation as described in the chapter "Installation and electrical connection". Switch on the machine as described in the "Commissioning" chapter.

## 10 Faults, causes and remedies

**Only have faults remedied by qualified personnel! Follow the safety instructions in 9 Maintenance.**

- Follow the installation and operating instructions for the pump, switchgear, level control device and other accessories.
- If the operating fault cannot be remedied, please consult a specialist technician, Wilo service or the closest Wilo representative.

## 11 Spare parts

Spare parts may be ordered via a local specialist retailer and/or Wilo customer service. To avoid queries and incorrect orders, all data on the rating plate should be submitted for each order.

## 12 Disposal

Disposing of this product properly prevents damage to the environment and risks to personal health.

- 1) Use public or private disposal organisations when disposing of all or part of the product.
- 2) For more information on proper disposal, please contact your local council or waste disposal office or the supplier from whom you obtained the product.

**Subject to change without prior notice!**

**D EG – Konformitätserklärung**  
**GB EC – Declaration of conformity**  
**F Déclaration de conformité CE**

(gemäß / according / conforme 2006/42/EG, Anhang / annex / appendice II: 1A)

Hiermit erklären wir, dass die Bauart der Baureihe :

**WS40 Basic**

*Herewith, we declare that the product type of the series:*

*Par le présent, nous déclarons que l'agrégat de la série :*

*(Die Seriennummer ist auf dem Typenschild des Produktes angegeben. /*

*The serial number is marked on the product site plate. /*

*Le numéro de série est inscrit sur la plaque signalétique du produit.)*

in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entspricht:

*in its delivered state complies with the following relevant provisions:*

*est conforme aux dispositions suivantes dont il relève:*

**EG-Maschinenrichtlinie**

**2006/42/EG**

**EC-Machinery directive**

**Directives CE relatives aux machines**

Die Schutzziele der Niederspannungsrichtlinie 2006/95/EG werden gemäß Anhang I, Nr. 1.5.1 der Maschinenrichtlinie 2006/42/EG eingehalten.

*The protection objectives of the low-voltage directive 2006/95/EC are realized according annex I, No. 1.5.1 of the EC-Machinery directive 2006/42/EC.*

*Les objectifs protection de la directive basse-tension 2006/95/CE sont respectées conformément à appendice I, n° 1.5.1 de la directive CE relatives aux machines 2006/42/CE.*

**Elektromagnetische Verträglichkeit – Richtlinie**

**2004/108/EG**

**Electromagnetic compatibility – directive**

**Compatibilité électromagnétique- directive**

**Bauproduktenrichtlinie**

**89/106/EWG**

**Construction product directive**

*i.d.F./ as amended/ avec les amendements suivants :*

**Directive de produit de construction**

**93/68/EWG**

Angewendete harmonisierte Normen, insbesondere:

*Applied harmonized standards, in particular:*

*Normes harmonisées, notamment:*

gültig für / valid for / valide pour :

1) WS 40E/TC40 (3~) BV

2) WS 40E/TC40 (1~) BV

WS 40D/TC40 (1~) BV

WS 40E/TC40 (3~) BV

WS 40D/TC40 (3~) BV

WS 40D/TC40 (1~) BV

WS 40D/TC40 (3~) BV

**EN 14121-1**

**EN 60335-2-41**

**EN 60034-1, EN 60204-1**

**EN 60730-1**

**EN 55014-1<sup>1)</sup>, EN 55014-2<sup>1)</sup>**

**EN 61000-6-1<sup>1)</sup>, EN 61000-6-2<sup>1)</sup>**

**EN 61000-6-3**

**EN 61000-3-2<sup>1)</sup>, EN 61000-3-3<sup>1)</sup>**

**DIN EN 12050-2<sup>2)</sup>**

**EN 12050-4**

Bei einer mit uns nicht abgestimmten technischen Änderung der oben genannten Bauarten, verliert diese Erklärung ihre Gültigkeit.

*If the above mentioned series are technically modified without our approval, this declaration shall no longer be applicable.*

*Si les gammes mentionnées ci-dessus sont modifiées sans notre approbation, cette déclaration perdra sa validité.*

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen ist:

*Authorized representative for the completion of the technical documentation:*

*Mandataire pour le complément de la documentation technique est :*

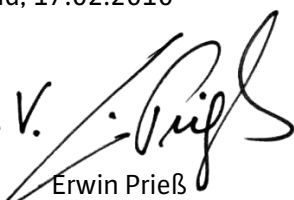
Volker Netsch

Engineering Building Service

Heimgartenstraße 1-3

95030 Hof

Dortmund, 17.02.2010

*i. V.*  
  
Erwin Prieß  
Quality Manager



WILO SE

Nortkirchenstraße 100

44263 Dortmund

Germany

**D EG – Konformitätserklärung**  
**GB EC – Declaration of conformity**  
**F Déclaration de conformité CE**

(gemäß / according / conforme 2006/42/EG, Anhang / annex / appendice II: 1A)

Hiermit erklären wir, dass die Bauart der Baureihe :

*Herewith, we declare that the product type of the series:*

*Par le présent, nous déclarons que l'agrégat de la série :*

(Die Seriennummer ist auf dem Typenschild des Produktes angegeben. /

*The serial number is marked on the product site plate. /*

*Le numéro de série est inscrit sur la plaque signalétique du produit.)*

**WS40E/MTS40<sup>1)</sup>**

**WS40D/MTS40<sup>1)</sup>**

**WS50E<sup>2), 3)</sup>**

**WS50D<sup>2), 3)</sup>**

in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entspricht:

*in its delivered state complies with the following relevant provisions:*

*est conforme aux dispositions suivantes dont il relève:*

**EG-Maschinenrichtlinie**

**2006/42/EG**

**EC-Machinery directive**

**Directives CE relatives aux machines**

Die Schutzziele der Niederspannungsrichtlinie 2006/95/EG werden gemäß Anhang I, Nr. 1.5.1 der Maschinenrichtlinie 2006/42/EG eingehalten.

*The protection objectives of the low-voltage directive 2006/95/EC are realized according annex I, No. 1.5.1 of the EC-Machinery directive 2006/42/EC.*

*Les objectifs protection de la directive basse-tension 2006/95/CE sont respectées conformément à appendice I, n° 1.5.1 de la directive CE relatives aux machines 2006/42/CE.*

**Elektromagnetische Verträglichkeit – Richtlinie**

**2004/108/EG**

**Electromagnetic compatibility – directive**

**Compatibilité électromagnétique – directive**

**Bauproduktenrichtlinie**

**89/106/EWG**

**Construction product directive**

i.d.F./as amended/avec les amendements suivants :

**Directive de produit de construction**

**93/68/EWG**

Angewendete harmonisierte Normen, insbesondere:

*Applied harmonized standards, in particular:*

*Normes harmonisées, notamment:*

**EN 14121-1**

**EN 60335-2-41**

**EN 60034-1, EN 60204-1**

**EN 60730-1**

**EN 55014-1, EN 55014-2**

**EN 61000-3-2, EN 61000-3-3**

**DIN EN 12050-1<sup>1)</sup>**

**EN 12050-1<sup>2)</sup>**

**DIN EN 12050-2<sup>3)</sup>**

**EN 12050-4**

*gültig für / valid for / valide pour :*

- 1) WS40E/MTS40; WS40D/MTS40 komplett mit/completed with/complète avec MTS40/21, MTS40/24 ; MTS40/27 und/and/et PL1-WS oder/or/ou PL2-WS zener barrier und/and/et Wilo-level sensor.
- 2) WS50E; WS50D komplett mit/completed with/complète avec TP50F90/7,5; TP65F91/11; TP65F98/15; TP65F109/22 und/and/et PL1-WS oder/or/ou PL2-WS und/and/et Wilo-level sensor.
- 3) WS50E; WS50D komplett mit/completed with/complète avec TP50F82/5,5; TP50E101/5,5; TP50E107/7,5; TP65E114/11; TP65E122/15; TP65E132/22 und/and/et PL1-WS oder/or/ou PL2-WS und/and/et Wilo-level sensor.

Bei einer mit uns nicht abgestimmten technischen Änderung der oben genannten Bauarten, verliert diese Erklärung ihre Gültigkeit.

*If the above mentioned series are technically modified without our approval, this declaration shall no longer be applicable.*

*Si les gammes mentionnées ci-dessus sont modifiées sans notre approbation, cette déclaration perdra sa validité.*

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen ist:

*Authorized representative for the completion of the technical documentation:*

*Mandataire pour le complément de la documentation technique est :*

Volker Netsch

Engineering Building Service

Heimgartenstraße 1-3

95030 Hof

Dortmund, 29.01.2010

*i. V.*  
  
Erwin Prieß  
Quality Manager



WILO SE  
Nortkirchenstraße 100  
44263 Dortmund  
Germany

**NL**  
**EG-verklaring van overeenstemming**  
Hiervoor verklaren wij dat dit aggregaat in de geleverde uitvoering voldoet aan de volgende bepalingen:  
**EG-richtlijnen betreffende machines 2006/42/EG**  
De veiligheidsdoelstellingen van de laagspanningsrichtlijn worden overeenkomstig bijlage I, nr. 1.5.1 van de machinerichtlijn 2006/42/EG aangehouden.  
**Elektromagnetische compatibiliteit 2004/108/EG**  
**Bouwproductenrichtlijn 89/106/EEG** als vervolg op 93/86/EEG

gebruikte geharmoniseerde normen, in het bijzonder:  
zie vorige pagina

**P**  
**Declaração de Conformidade CE**  
Pela presente, declaramos que esta unidade no seu estado original, está conforme os seguintes requisitos:  
**Directivas CEE relativas a máquinas 2006/42/EG**  
Os objectivos de protecção da directiva de baixa tensão são cumpridos de acordo com o anexo I, nº 1.5.1 da directiva de máquinas 2006/42/CE.  
**Compatibilidade electromagnética 2004/108/EG**  
**Directiva sobre produtos de construção 89/106/CEE** com os aditamentos seguintes 93/68/EEG  
normas harmonizadas aplicadas, especialmente:  
ver página anterior

**FIN**  
**CE-standardinmukaisuuseloste**  
Ilmoitamme täten, että tämä laite vastaa seuraavia asiaankuuluvia määräyksiä:  
**EU-konedirektiivi: 2006/42/EG**  
Pienjännitedirektiivin suojatavoitteita noudatetaan konedirektiivin 2006/42/EY liitteen I, nro 1.5.1 mukaisesti.  
**Sähkömagneettinen soveltuvuus 2004/108/EG**  
**EU materiaalidirektiivi 89/106/EEG** seuraavien täsmennyksin 93/68/EEG

käytetty yhteensovitettu standardit, erityisesti:  
katso edellinen sivu.

**CZ**  
**Prohlášení o shodě ES**  
Prohlašujeme tímto, že tento agregát v dodaném provedení odpovídá následujícím příslušným ustanovením:  
**Směrnice ES pro strojní zařízení 2006/42/ES**  
Cíle týkající se bezpečnosti stanovené ve směrnici o elektrických zařízeních nízkého napětí jsou dodrženy podle přílohy I, č. 1.5.1 směrnice o strojních zařízeních 2006/42/ES.  
**Směrnice o elektromagnetické kompatibilitě 2004/108/ES**  
**Směrnice pro stavební výrobky 89/106/EEG** ve znění 93/68/EEG

použité harmonizační normy, zejména:  
viz předchozí strana

**GR**  
**Δήλωση συμμόρφωσης της ΕΕ**  
Δηλώνουμε ότι το προϊόν αυτό σ' αυτή την κατάσταση παράδοσης ικανοποιεί τις ακόλουθες διατάξεις:  
**Οδηγίες ΕΚ για μηχανήματα 2006/42/ΕΚ**  
Οι απαιτήσεις προστασίας της οδηγίας χαμηλής τάσης τηρούνται σύμφωνα με το παράρτημα Ι, αρ. 1.5.1 της οδηγίας σχετικά με τα μηχανήματα 2006/42/ΕΕ.  
**Ηλεκτρομαγνητική συμβατότητα ΕΚ-2004/108/ΕΚ**  
**Οδηγία κατασκευής 89/106/ΕΟΚ** όπως τροποποιήθηκε 93/68/ΕΟΚ

Εναρμονισμένα χρησιμοποιούμενα πρότυπα, ιδιαίτερα:  
βλ.επε προηγούμενη σελίδα

**EST**  
**EÜ vastavusdeklaratsioon**  
Käesolevaga tõendame, et see toode vastab järgmistele asjakohastele direktiividetele:  
**Masinaidirektiiv 2006/42/EÜ**  
Madalpingedirektiivi kaitse-eesmärgid on täidetud vastavalt masinate direktiivi 2006/42/EÜ I lisa punktile 1.5.1.  
**Elektromagnetilise ühilduvuse direktiiv 2004/108/EÜ**  
**Ehitusoodete direktiiv 89/106/EÜ**, muudetud direktiiviga 93/68/EMÜ kohaldatud harmoneeritud standardid, eriti:  
vt eelmist lk

**SK**  
**ES vyhlásenie o zhode**  
Týmto vyhlasujeme, že konštrukcie tejto konštrukčnej série v dodanom vyhotovení vyhovujú nasledujúcim príslušným ustanoveniam:  
**Stroje – smernica 2006/42/ES**  
Bezpečnostné ciele smernice o nízkom napätí sú dodržiavané v zmysle prílohy I, č. 1.5.1 smernice o strojových zariadeniach 2006/42/ES.  
**Elektromagnetická zhoda – smernica 2004/108/ES**  
**Stavebné materiály – smernica 89/106/ES** pozmenená 93/68/EHP

používané harmonizované normy, najmä:  
pozri predchádzajúcu stranu

**M**  
**Dikjarazzjoni ta' konformità KE**  
B'dan il-mezz, niddikjaraw li l-prodotti tas-serje jissodisfaw id-dispożizzjonijiet relevanti li ġejjin:  
**Makkinarju – Direttiva 2006/42/KE**  
L-oġġettivi tas-sigurtà tad-Direttiva dwar il-Vultaġġ Baxx huma konformi mal-Anness I, Nru 1.5.1 tad-Direttiva dwar il-Makkinarju 2006/42/KE.  
**Kompatibbiltà elettromanjetika – Direttiva 2004/108/KE**  
**Direttiva dwar il-prodotti tal-kostruzzjoni 89/106/KEE** kif emendata bid-Direttiva 93/68/KEE  
kif ukoll standards armonizzati b'mod partikolari:  
ara l-paġna ta' qabel

**I**  
**Dichiarazione di conformità CE**  
Con la presente si dichiara che i presenti prodotti sono conformi alle seguenti disposizioni e direttive rilevanti:  
**Direttiva macchine 2006/42/EG**  
Gli obiettivi di protezione della direttiva macchine vengono rispettati secondo allegato I, n. 1.5.1 dalla direttiva macchine 2006/42/CE.  
**Compatibilità elettromagnetica 2004/108/EG**  
**Direttiva linee guida costruzione dei prodotti 89/106/CEE** e seguenti modifiche 93/68/CEE  
norme armonizzate applicate, in particolare:  
vedi pagina precedente

**S**  
**CE-försäkran**  
Härmed förklarar vi att denna maskin i levererat utförande motsvarar följande tillämpliga bestämmelser:  
**EG-Maskindirektiv 2006/42/EG**  
Produkten uppfyller säkerhetsmålen i lågspänningsdirektivet enligt bilaga I, nr 1.5.1 i maskindirektiv 2006/42/EG.  
**EG-Elektromagnetisk kompatibilitet – riktlinje 2004/108/EG**  
**EG-Byggmaterialdirektiv 89/106/EEG** med följande ändringar 93/68/EEG  
tillämpade harmoniserade normer, i synnerhet:  
se föregående sida

**DK**  
**EF-overensstemmelseserklæring**  
Vi erklærer hermed, at denne enhed ved levering overholder følgende relevante bestemmelser:  
**EU-maskindirektiver 2006/42/EG**  
Lavspændingsdirektivets mål om beskyttelse overholdes i henhold til bilag I, nr. 1.5.1 i maskindirektivet 2006/42/EF.  
**Elektromagnetisk kompatibilitet: 2004/108/EG**  
**Produktkonstruktionsdirektiv 98/106/EEG** følgende 93/68/EEG

anvendte harmoniserede standarder, særligt:  
se forrige side

**PL**  
**Deklaracja Zgodności WE**  
Niniejszym deklaruję z pełną odpowiedzialnością, że dostarczony wyrób jest zgodny z następującymi dokumentami:  
**dyrektywa maszynowa WE 2006/42/WE**  
Przestrzegane są cele ochrony dyrektywy niskonapięciowej zgodnie z załącznikiem I, nr 1.5.1 dyrektywy maszynowej 2006/42/WE.  
**dyrektywa dot. kompatybilności elektromagnetycznej 2004/108/WE**  
**dyrektywa w sprawie wyrobów budowlanych 89/106/EEG** w brzmieniu 93/68/EEG  
stosowanymi normami zharmonizowanymi, a w szczególności:  
patrz poprzednia strona

**TR**  
**CE Uygunluk Teyid Belgesi**  
Bu cihazın teslim edildiği şekliyle aşağıdaki standartlara uygun olduğunu teyid ederiz:  
**AB-Makina Standartları 2006/42/EG**  
Aşağık gerilim yөнгерesinin koruma hedefleri, 2006/42/AT makine yөнгерesi Ek I, no. 1.5.1'e uygundur.  
**Elektromanyetik Uyumluluk 2004/108/EG**  
**Ürün imalat yönetmeliği 89/106/EEG** ve takip eden, 93/68/EEG

kismlen kullanılan standartlar için:  
bkz. bir önceki sayfa

**LV**  
**EC - atbilstības deklarācija**  
Ar šo mēs apliecinām, ka šis izstrādājums atbilst sekojošiem noteikumiem:  
**Mašīnu direktīva 2006/42/EK**  
Zemsprīguma direktīvas drošības mērķi tiek ievēroti atbilstoši Mašīnu direktīvas 2006/42/EK pielikumam I, Nr. 1.5.1.  
**Elektromagnētiskās savietojamības direktīva 2004/108/EK**  
**Direktīva par būvzīdādājumiem 89/106/EEG** pēc labojumiem 93/68/EEG piemēroti harmonizēti standarti, tai skaitā:  
skatīt iepriekšējo lappusi

**SLO**  
**ES – izjava o skladnosti**  
Izjavljamo, da dobavljene vrste izvedbe te serije ustrezajo sledečim zadevnim določilom:  
**Direktiva o strojih 2006/42/ES**  
Cilji Direktive o nizkonapetostni opremi so v skladu s prilogo I, št. 1.5.1 Direktive o strojih 2006/42/EG doseženi.  
**Direktiva o elektromagnetni združljivosti 2004/108/ES**  
**Direktiva o gradbenih proizvodih 89/106/EEG** v verziji 93/68/EEG

uporabljeni harmonizirani standardi, predvsem:  
glejte prejšnjo stran

**E**  
**Declaración de conformidad CE**  
Por la presente declaramos la conformidad del producto en su estado de suministro con las disposiciones pertinentes siguientes:  
**Directiva sobre máquinas 2006/42/EG**  
Se cumplen los objetivos en materia de seguridad establecidos en la Directiva de Baja tensión según lo especificado en el Anexo I, punto 1.5.1 de la Directiva de Máquinas 2006/42/CE.  
**Directiva sobre compatibilidad electromagnética 2004/108/EG**  
**Directiva sobre productos de construcción 89/106/CEE** modificada por 93/68/CEE  
normas armonizadas adoptadas, especialmente:  
véase página anterior

**N**  
**EU-Overensstemmelseserklæring**  
Vi erklærer hermed at denne enheten i utførelse som levert er i overensstemmelse med følgende relevante bestemmelser:  
**EG-Maskindirektiv 2006/42/EG**  
Lavspenningsdirektivets verneemål overholdes i samsvar med vedlegg I, nr. 1.5.1 i maskindirektiv 2006/42/EF.  
**EG-EMV-Elektromagnetisk kompatibilitet 2004/108/EG**  
**Byggeveredirektiv 89/106/EEG** med senere tilføyelser 93/68/EEG

anvendte harmoniserte standarder, særlig:  
se forrige side

**H**  
**EK-megfelelőségi nyilatkozat**  
Ezennel kijelentjük, hogy az berendezés megfelel az alábbi irányelveknek:  
**Gépek irányelv: 2006/42/EK**  
A kiefeszültésű irányelv védelmi előírásait a 2006/42/EK gépekre vonatkozó irányelv I. függelékének 1.5.1. sz. pontja szerint teljesíti.  
**Elektromágneses összeférhetőség irányelv: 2004/108/EK**  
**Építési termékek irányelv 89/106/EEG** és az azt kiegészítő 93/68/EEG irányelv alkalmazott harmonizált szabványoknak, különösen:  
lásd az előző oldalt

**RUS**  
**Декларация о соответствии Европейским нормам**  
Настоящим документом заявляем, что данный агрегат в его объеме поставки соответствует следующим нормативным документам:  
**Директивы ЕС в отношении машин 2006/42/EG**  
Требования по безопасности, изложенные в директиве по низковольтному напряжению, соблюдаются согласно приложению I, № 1.5.1 директивы в отношении машин 2006/42/EG.  
**Электромагнитная устойчивость 2004/108/EG**  
**Директива о строительных изделиях 89/106/EEG** с поправками 93/68/EEG  
Используемые согласованные стандарты и нормы, в частности:  
см. предыдущую страницу

**RO**  
**EC-Declarație de conformitate**  
Prin prezenta declarăm că acest produs așa cum este livrat, corespunde cu următoarele prevederi aplicabile:  
**Directiva CE pentru mașini 2006/42/EG**  
Sunt respectate obiectivele de protecție din directiva privind joasa tensiune conform Anexei I, Nr. 1.5.1 din directiva privind mașinile 2006/42/CE.  
**Compatibilitatea electromagnetică – directiva 2004/108/EG**  
**Directiva privind produsele pentru construcții 89/106/EEG** cu amendamentele ulterioare 93/68/EEG  
standarde armonizate aplicate, îndeosebi:  
vezi pagina precedentă

**LT**  
**EB atitikties deklaracija**  
Šiuo pažymima, kad šis gaminyas atitinka šias normas ir direktyvas:  
**Mašinių direktyvą 2006/42/EB**  
Laikomasi Žemos įtampos direktyvos keliamų saugos reikalavimų pagal Mašinių direktyvos 2006/42/EB I priedo 1.5.1 punktą.  
**Elektromagnetinio suderinamumo direktyvą 2004/108/EB**  
**Statybos produktų direktyvos 89/106/EEB** pataisą 93/68/EEB pritaikytus vieningus standartus, o būtent:  
žr. ankstesniame puslapyje

**BG**  
**EO-Декларация за съответствие**  
Декларираме, че продуктът отговаря на следните изисквания:  
**Машинна директива 2006/42/EO**  
Целите за защита на разпоредбата за ниско напрежение са съставени съгласно. Приложение I, № 1.5.1 от Директивата за машини 2006/42/EC.  
**Електромагнитна съвместимост – директива 2004/108/EO**  
**Директива за строителни материали 89/106/ЕЮ** изменени 93/68/ЕЮ  
Хармонизирани стандарти:  
вж. предната страница



**WILO SE**  
**Nortkirchenstraße 100**  
**44263 Dortmund**  
**Germany**



**Wilo – International** (Subsidiaries)**Argentina**WILO SALMSON  
Argentina S.A.  
C1295ABI Ciudad  
Autónoma de Buenos Aires  
T+ 54 11 4361 5929  
info@salmson.com.ar**Austria**WILO Pumpen  
Österreich GmbH  
1230 Wien  
T +43 507 507-0  
office@wilo.at**Azerbaijan**WILO Caspian LLC  
1065 Baku  
T +994 12 5962372  
info@wilo.az**Belarus**WILO Bel OOO  
220035 Minsk  
T +375 17 2503393  
wilobel@wilo.by**Belgium**WILO SA/NV  
1083 Ganshoren  
T +32 2 4823333  
info@wilo.be**Bulgaria**WILO Bulgaria Ltd.  
1125 Sofia  
T +359 2 9701970  
info@wilo.bg**Canada**WILO Canada Inc.  
Calgary, Alberta T2A 5L4  
T +1 403 2769456  
bill.lowe@wilo-na.com**China**WILO China Ltd.  
101300 Beijing  
T +86 10 58041888  
wilobj@wilo.com.cn**Croatia**WILO Hrvatska d.o.o.  
10090 Zagreb  
T +38 51 3430914  
wilo-hrvatska@wilo.hr**Czech Republic**WILO Praha s.r.o.  
25101 Cestlice  
T +420 234 098711  
info@wilo.cz**Denmark**WILO Danmark A/S  
2690 Karlslunde  
T +45 70 253312  
wilo@wilo.dk**Estonia**WILO Eesti OÜ  
12618 Tallinn  
T +372 6509780  
info@wilo.ee**Finland**WILO Finland OY  
02330 Espoo  
T +358 207401540  
wilo@wilo.fi**France**WILO S.A.S.  
78390 Bois d'Arcy  
T +33 1 30050930  
info@wilo.fr**Great Britain**WILO (U.K.) Ltd.  
DE14 2WJ Burton-  
Upon-Trent  
T +44 1283 523000  
sales@wilo.co.uk**Greece**WILO Hellas AG  
14569 Anixi (Attika)  
T +302 10 6248300  
wilo.info@wilo.gr**Hungary**WILO Magyarország Kft  
2045 Törökbálint  
(Budapest)  
T +36 23 889500  
wilo@wilo.hu**India**WILO India Mather and  
Platt Pumps Ltd.  
Pune 411019  
T +91 20 27442100  
service@  
pun.matherplatt.co.in**Indonesia**WILO Pumps Indonesia  
Jakarta Selatan 12140  
T +62 21 7247676  
citrawilo@cbn.net.id**Ireland**WILO Engineering Ltd.  
Limerick  
T +353 61 227566  
sales@wilo.ie**Italy**WILO Italia s.r.l.  
20068 Peschiera  
Borromeo (Milano)  
T +39 25538351  
wilo.italia@wilo.it**Kazakhstan**WILO Central Asia  
050002 Almaty  
T +7 727 2785961  
in.pak@wilo.kz**Korea**WILO Pumps Ltd.  
621-807 Gimhae  
Gyeongnam  
T +82 55 3405890  
wilo@wilo.co.kr**Latvia**WILO Baltic SIA  
1019 Riga  
T +371 67 145229  
mail@wilo.lv**Lebanon**WILO SALMSON  
Lebanon  
12022030 El Metn  
T +961 4 722280  
wsl@cyberia.net.lb**Lithuania**WILO Lietuva UAB  
03202 Vilnius  
T +370 5 2136495  
mail@wilo.lt**The Netherlands**WILO Nederland b.v.  
1551 NA Westzaan  
T +31 88 9456 000  
info@wilo.nl**Norway**WILO Norge AS  
0975 Oslo  
T +47 22 804570  
wilo@wilo.no**Poland**WILO Polska Sp. z o.o.  
05-090 Raszyn  
T +48 22 7026161  
wilo@wilo.pl**Portugal**Bombas Wilo-Salmson  
Portugal Lda.  
4050-040 Porto  
T +351 22 2080350  
bombas@wilo.pt**Romania**WILO Romania s.r.l.  
077040 Com. Chiajna  
Jud. Ilfov  
T +40 21 3170164  
wilo@wilo.ro**Russia**WILO Rus ooo  
123592 Moscow  
T +7 495 7810690  
wilo@wilo.ru**Saudi Arabia**WILO ME – Riyadh  
Riyadh 11465  
T +966 1 4624430  
wshoula@wataniaind.com**Serbia and Montenegro**WILO Beograd d.o.o.  
11000 Beograd  
T +381 11 2851278  
office@wilo.co.yu**Slovakia**WILO Slovakia s.r.o.  
82008 Bratislava 28  
T +421 2 45520122  
wilo@wilo.sk**Slovenia**WILO Adriatic d.o.o.  
1000 Ljubljana  
T +386 1 5838130  
wilo.adriatic@wilo.si**South Africa**Salmson South Africa  
1610 Edenvale  
T +27 11 6082780  
errol.cornelius@  
salmson.co.za**Spain**WILO Ibérica S.A.  
28806 Alcalá de Henares  
(Madrid)  
T +34 91 8797100  
wilo.iberica@wilo.es**Sweden**WILO Sverige AB  
35246 Växjö  
T +46 470 727600  
wilo@wilo.se**Switzerland**EMB Pumpen AG  
4310 Rheinfelden  
T +41 61 83680-20  
info@emb-pumpen.ch**Taiwan**WILO-EMU Taiwan Co. Ltd.  
110 Taipei  
T +886 227 391655  
nelson.wu@  
wiloemutaiwan.com.tw**Turkey**WILO Pompa Sistemleri  
San. ve Tic. A.Ş.  
34530 Istanbul  
T +90 216 6610211  
wilo@wilo.com.tr**Ukraine**WILO Ukraina t.o.w.  
01033 Kiev  
T +38 044 2011870  
wilo@wilo.ua**United Arab Emirates**WILO Middle East FZE  
Jebel Ali – Dubai  
T +971 4 886 4771  
info@wilo.com.sa**USA**WILO-EMU USA LLC  
Thomasville,  
Georgia 31792  
T +1 229 5840097  
info@wilo-emu.comWILO USA LLC  
Melrose Park, Illinois 60160  
T +1 708 3389456  
mike.easterley@  
wilo-na.com**Vietnam**WILO Vietnam Co Ltd.  
Ho Chi Minh City, Vietnam  
T +84 8 38109975  
nkminh@wilo.vn**Wilo – International** (Representation offices)**Algeria**Bad Ezzouar, Dar El Beida  
T +213 21 247979  
chabane.hamdad@salmson.fr**Armenia**375001 Yerevan  
T +374 10 544336  
info@wilo.am**Bosnia and Herzegovina**71000 Sarajevo  
T +389 33 714510  
zeljko.cvjetkovic@wilo.ba**Georgia**0179 Tbilisi  
T +995 32 306375  
info@wilo.ge**Macedonia**1000 Skopje  
T +389 2 3122058  
valerij.vojneski@wilo.com.mk**Mexico**07300 Mexico  
T +52 55 55863209  
roberto.valenzuela@wilo.com.mx**Moldova**2012 Chisinau  
T +373 2 223501  
sergiu.zagurean@wilo.md**Rep. Mongolia**Ulaanbaatar  
T +976 11 314843  
wilo@magicnet.mn**Tajikistan**734025 Dushanbe  
T +992 37 2232908  
farhod.rahimov@wilo.tj**Turkmenistan**744000 Ashgabad  
T +993 12 345838  
wilo@wilo-tm.info**Uzbekistan**100015 Tashkent  
T +998 71 1206774  
info@wilo.uz

November 2009



WILO SE  
Nortkirchenstraße 100  
44263 Dortmund  
Germany  
T 0231 4102-0  
F 0231 4102-7363  
wilo@wilo.com  
www.wilo.de

## Wilo-Vertriebsbüros in Deutschland

### G1 Nord

WILO SE  
Vertriebsbüro Hamburg  
Beim Strohhouse 27  
20097 Hamburg  
T 040 5559490  
F 040 55594949  
hamburg.anfragen@wilo.com

### G3 Ost

WILO SE  
Vertriebsbüro Dresden  
Frankenring 8  
01723 Kesselsdorf  
T 035204 7050  
F 035204 70570  
dresden.anfragen@wilo.com

### G5 Süd-West

WILO SE  
Vertriebsbüro Stuttgart  
Hertichstraße 10  
71229 Leonberg  
T 07152 94710  
F 07152 947141  
stuttgart.anfragen@wilo.com

### G7 West

WILO SE  
Vertriebsbüro Düsseldorf  
Westring 19  
40721 Hilden  
T 02103 90920  
F 02103 909215  
duesseldorf.anfragen@wilo.com

### G2 Nord-Ost

WILO SE  
Vertriebsbüro Berlin  
Juliusstraße 52-53  
12051 Berlin-Neukölln  
T 030 6289370  
F 030 62893770  
berlin.anfragen@wilo.com

### G4 Süd-Ost

WILO SE  
Vertriebsbüro München  
Adams-Lehmann-Straße 44  
80797 München  
T 089 4200090  
F 089 42000944  
muenchen.anfragen@wilo.com

### G6 Mitte

WILO SE  
Vertriebsbüro Frankfurt  
An den drei Hasen 31  
61440 Oberursel/Ts.  
T 06171 70460  
F 06171 704665  
frankfurt.anfragen@wilo.com

### Kompetenz-Team Gebäudetechnik

WILO SE  
Nortkirchenstraße 100  
44263 Dortmund  
T 0231 4102-7516  
T 01805 R•U•F•W•I•L•O\*  
7•8•3•9•4•5•6  
F 0231 4102-7666

Erreichbar Mo-Fr von 7-18 Uhr.

- Antworten auf
  - Produkt- und Anwendungsfragen
  - Liefertermine und Lieferzeiten
- Informationen über Ansprechpartner vor Ort
- Versand von Informationsunterlagen

### Kompetenz-Team Kommune Bau + Bergbau

WILO EMU GmbH  
Heimgartenstraße 1  
95030 Hof  
T 09281 974-550  
F 09281 974-551

### Werkskundendienst Gebäudetechnik Kommune Bau + Bergbau Industrie

WILO SE  
Nortkirchenstraße 100  
44263 Dortmund  
T 0231 4102-7900  
T 01805 W•I•L•O•K•D\*  
9•4•5•6•5•3  
F 0231 4102-7126  
kundendienst@wilo.com

Erreichbar Mo-So von  
7-18 Uhr.  
In Notfällen täglich  
auch von  
18-7 Uhr.

- Kundendienst-Anforderung
- Werksreparaturen
- Ersatzteilfragen
- Inbetriebnahme
- Inspektion
- Technische Service-Beratung
- Qualitätsanalyse

### Wilo-International

#### Österreich

Zentrale Wien:  
WILO Pumpen Österreich GmbH  
Eitnergasse 13  
1230 Wien  
T +43 507 507-0  
F +43 507 507-15

Vertriebsbüro Salzburg:  
Gnigler Straße 56  
5020 Salzburg  
T +43 507 507-13  
F +43 507 507-15

#### Vertriebsbüro Oberösterreich:

Trattnachtalstraße 7  
4710 Grieskirchen  
T +43 507 507-26  
F +43 507 507-15

#### Schweiz

EMB Pumpen AG  
Gerstenweg 7  
4310 Rheinfelden  
T +41 61 83680-20  
F +41 61 83680-21

### Standorte weiterer Tochtergesellschaften

Argentinien, Aserbaidshjan,  
Belarus, Belgien, Bulgarien,  
China, Dänemark, Estland,  
Finnland, Frankreich,  
Griechenland, Großbritannien,  
Indien, Indonesien, Irland,  
Italien, Kanada, Kasachstan,  
Korea, Kroatien, Lettland,  
Libanon, Litauen,  
Niederlande, Norwegen,  
Polen, Portugal, Rumänien,  
Russland, Saudi-Arabien,  
Schweden, Serbien und  
Montenegro, Slowakei,  
Slowenien, Spanien,  
Südafrika, Taiwan,  
Tschechien, Türkei, Ukraine,  
Ungarn, USA, Vereinigte  
Arabische Emirate, Vietnam

Die Adressen finden Sie unter  
[www.wilo.com](http://www.wilo.com).

Stand Januar 2010

\* 0,14 €/Min. aus dem Festnetz,  
Mobilfunk max. 0,42 €/Min.