



## Wilo-DrainLift XXL

**GB** Installation and operating instructions



## 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 unit and individual components are delivered on a pallet.

Immediately after receiving the product:

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



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

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

- **Transport the product only on the pallet and use only approved handling equipment.**
- **Make sure the product remains stable and does not suffer any mechanical damage during transport.**
- **Prior to installation, store the product on the pallet in such a manner that it remains dry and frost-proof and is not exposed to direct sunlight.**
- **Do not stack.**

### 4 Intended use

The DrainLift L XXL sewage lifting unit is an automatic sewage lifting unit according to EN 12050-1 for collecting and pumping sewage which is free of faeces or contains faeces for the backflow-proof drainage from discharge points at buildings and sites below the backflow level.

The unit is only suitable for domestic sewage as defined in EN 12056-1. No explosive or harmful substances may be introduced in high concentrations, such as solid substances, debris, ash, garbage, sand, plaster, cement, lime, mortar, fibrous materials, textiles, paper towels, nappies, cardboard, coarse paper, synthetic resins, tar, kitchen waste, grease, oil, 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, disinfectants, dishwashing or laundry detergents, and such which have a high degree of foam formation or swimming-pool water. A grease trap should be provided if greasy sewage accumulates.

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: Make sure the national and regional applicable standards and regulations are observed during installation and operation.  
The details in the operating instructions for the switchgear should also be observed.



**DANGER! Danger of explosion!**

**Sewage containing faeces in collection reservoirs can cause gas accumulation which may 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!**

**Not suitable for pumping potable water due to the materials used! Contaminated sewage is a health hazard.**



**CAUTION! Risk of property damage!**

**Discharging inadmissible substances can cause damage to the product.**

- **Never discharge solids, fibrous substances, tar, sand, cement, ash, coarse paper, paper towels, cardboard, debris, rubbish, animal waste, grease, or oil.**
- **A grease trap should to be provided if greasy sewage accumulates.**
- **Improper use and overstraining causes damage to the product.**
- **The maximum possible inflow quantity must always be lower 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 to permanent operation and intermittent operation (S3 – 25 %/60 s). The unit must switch on a maximum of 60 times per hour and pump. The operating time and follow-up time (if required) should be set as short as possible.

Furthermore, the operating parameters should be observed in accordance with Table 5.2.



**WARNING! Danger due to overpressure!**

**If the lowest inlet head is higher than 5 m, this will cause dangerous overpressure in the reservoir in the event of a unit failure. If this happens, there will be a risk of the tank bursting.**

**The inlet must be blocked immediately in the event of a malfunction.**

Intended use also includes the observance of these instructions.

Any other use is regarded as incorrect use.

## 5 Product information

### 5.1 Type key

Example:	DrainLift XXL 840-2/1.7
DrainLift	Sewage lifting unit
XXL	Size
8	8 = DN 80 pressure connection 10 = DN 100 pressure connection
40	40 = total volume of 400 l 80 = total volume of 800 l (2 tanks of 400 l)
-2	2 = double-pump system
/1.7	Nominal power per pump [kW]

## 5.2 Technical data

		DrainLift XXL ...					
		840-2/1.	840-2/2.1	1040-2/3.9	1040-2/5.2	1040-2/7.0	1040-2/8.4
Connection voltage	[V]	3~400 ± 10 %					
Connection version		Switchgear with main switch					
Power consumption P <sub>1</sub>	[kW]	2 x 2.3	2 x 2.7	2 x 4.4	2 x 6.2	2 x 8.4	2 x 10.0
Nominal current	[A]	2 x 6.7	2 x 7.1	2 x 10.5	2 x 12.8	2 x 15.6	2 x 18.1
Mains frequency	[Hz]	50					
Protection class		Unit: IP 67 (2 mwc, 7 days) Switchgear: IP 54					
Speed	[rpm]	1450					
Start-up type		Direct			Star-delta		
Operating mode (with regard to the pump)		S1; S3 25 % 60 sec					
Max. switching frequency	[1/h]	120 (60 per pump)					
Max. total delivery head	[mwc]	8.5	10.5	12	15.5	18.5	21
Max. permitted geodesic delivery head	[mwc]	6.5	8.5	9.5	12	15	17.5
Max. permissible pressure in the pressure pipe	[bar]	3					
Max. volume flow *1)	[m <sup>3</sup> /h]	75	85	140	140	140	140
Min. volume flow *1)	[m <sup>3</sup> /h]	19	20	36	38	44	47
Max. fluid temperature	[°C]	40 (briefly 3 min, 60°C)					
Min. fluid temperature	[°C]	3					
Max. ambient temperature	[°C]	40					
Max. solid grain size	[mm]	80		95			
Sound-pressure level (depending on the duty point) *2)	[dB(A)]	< 70					
Gross volume	[l]	400					
Recommended level Pump 1 ON switching point *3)	[mm]	560					
Minimum value of level Pump 1 ON switching point *3)	[mm]	500		550			
Minimum value of level Pump OFF switching point *3)	[mm]	140		160			
Switching volume (pump 1 only; with recommended switching level ON and minimum switching level OFF)	[l]	230		220			
Max. permissible inlet quantity in one hour (switching operation, switching volume with recommended switching level) *4)	[l]	25% of volume flow value at duty point					
Dimensions (W/D/H)	[mm]	1965/930/880		1990/960/880			
Net weight (complete, without packaging)	[kg]	160		195			
Pressure connection	[DN]	80		100			
Inlet connections	[DN]	100, 150					
Ventilation connection	[DN]	70					

\*1) Observe the permissible flow rate in the pressure pipe: 0.7 to 2.3 m/s according to EN 12056

\*2) Improper unit and pipe installation, as well as impermissible operation, can increase the acoustic emissions.

\*3) Measured in relation to installation level

\*4) The current peak flow must always be lower than the volume flow of a pump at the duty point

		DrainLift XXL ...					
		880-2/1.7	880-2/2.1	1080-2/3.9	1080-2/5.2	1080-2/7.0	1080-2/8.4
Connection voltage	[V]	3~400 ± 10 %					
Connection version		Switchgear with main switch					
Power consumption P <sub>1</sub>	[kW]	2 x 2.3	2 x 2.7	2 x 4.4	2 x 6.2	2 x 8.4	2 x 10.0
Nominal current	[A]	2 x 6.7	2 x 7.1	2 x 10.5	2 x 12.8	2 x 15.6	2 x 18.1
Mains frequency	[Hz]	50					
Protection class		Unit: IP 67 (2 mwc, 7 days) Switchgear: IP 54					
Speed	[rpm]	1450					
Start-up type		Direct			Star-delta		
Operating mode (with regard to the pump)		S1; S3 25 % 60 sec					
Max. switching frequency	[1/h]	120 (60 per pump)					
Max. total delivery head	[mwc]	8.5	10.5	12	15.5	18.5	21
Max. permitted geodesic delivery head	[mwc]	6.5	8.5	9.5	12	15	17.5
Max. permissible pressure in the pressure pipe	[bar]	3					
Max. volume flow *1)	[m <sup>3</sup> /h]	75	85	140	140	140	140
Min. volume flow *1)	[m <sup>3</sup> /h]	19	20	36	38	44	47
Max. fluid temperature	[°C]	40 (briefly 3 min, 60°C)					
Min. fluid temperature	[°C]	3					
Max. ambient temperature	[°C]	40					
Max. solid grain size	[mm]	80		95			
Sound-pressure level (depending on the duty point) *2)	[dB(A)]	< 70					
Gross volume	[l]	800					
Recommended level Switching point, pump 1 ON *3)	[mm]	560					
Minimum value of level Switching point, pump 1 ON *3)	[mm]	500		550			
Minimum value of level Switching point, pump OFF *3)	[mm]	140		160			
Switching volume (pump 1 only; with recommended switching level ON and minimum switching level OFF)	[l]	460		440			
Max. permissible inlet quantity in one hour (switching operation, switching volume with recommended switching level) *4)	[l]	25% of volume flow value at duty point					
Dimensions (W/D/H)	[mm]	1965/1695/880		1990/1710/880			
Net weight (complete, without packaging)	[kg]	195		230			
Pressure connection	[DN]	80		100			
Inlet connections	[DN]	100, 150					
Ventilation connection	[DN]	70					

\*1) Observe the permissible flow rate in the pressure pipe: 0.7 to 2.3 m/s according to EN 12056

\*2) Improper unit and pipe installation, as well as impermissible operation, can increase the acoustic emissions.

\*3) Measured in relation to installation level

\*4) The current peak flow must always be lower than the volume flow of a pump at the duty point

<b>CE</b>	
WILO SE Dortmund Nortkirchenstr. 100, 44263 Dortmund, Germany	
<b>10</b>	
<b>EN 12050-1</b>	
Faeces lifting unit for building DN 80, DN 100	
<b>Lifting power</b>	- See pump curve
<b>Noise level</b>	- TRS
<b>Explosion protection</b>	- TRS
<b>Corrosion protection</b>	- coated, or corrosion-resistant materials, inox/composite

Please submit all the details on the unit's rating plate when ordering spare parts.

### 5.3 Scope of delivery

Sewage lifting unit, delivered on pallets in the assemblies:

- 2 pumps, complete, in horizontal installation
- 1 tank, complete (2 x for units with 2 tanks)
- 1 switchgear (3~400 V)
- 1 Zener barrier in the housing with 1 m cable, pre-installed
- 1 level sensor 0-1 mwc, 10 m cable
- 1 set of fixation material for tank and pumps on the floor
- 1 DN 150 hose section with clamps for DN 150 inlet connection
- 1 DN 150 hose section with clamps for tank connection (only for units with 2 tanks)
- 1 DN 75 hose section with clamps for connection of the ventilation line (2 x for units with 2 tanks)
- 1 DN 50 hose section with clamps for connection of the suction line to the diaphragm hand pump (2 x for units with 2 tanks)
- 2 vent flanges with flat gaskets, DN 19 hose sections and hose clamps
- 1 Installation and operating instructions

### 5.4 Accessories

Accessories must be ordered separately. For a detailed list and description, see catalogue/price list.

The following accessories are available:

- DN 80 cast gate valve for pressure pipe
- DN 100 cast gate valve, pressure pipe and pump suction pipe
- DN 80 cast non-return valve for pressure pipe
- DN 100 cast non-return valve for pressure pipe
- Flange pieces DN 80, DN 80/100, DN 100, for connection of the slide valve on the pressure side to the pressure pipe
- Y-pipe DN 80, DN 100 for units with 1 tank
- Plastic gate valve DN 100, DN for inlet pipe
- Diaphragm hand pump R 1½ (without hose)
- 3-way cock for switch-over to manual extraction from the pump sump/tank
- Alarm switchgear
- Horn 230 V/50 Hz
- Flash light 230 V/50 Hz
- Signal lamp 230 V/50 Hz



## 6 Description and function

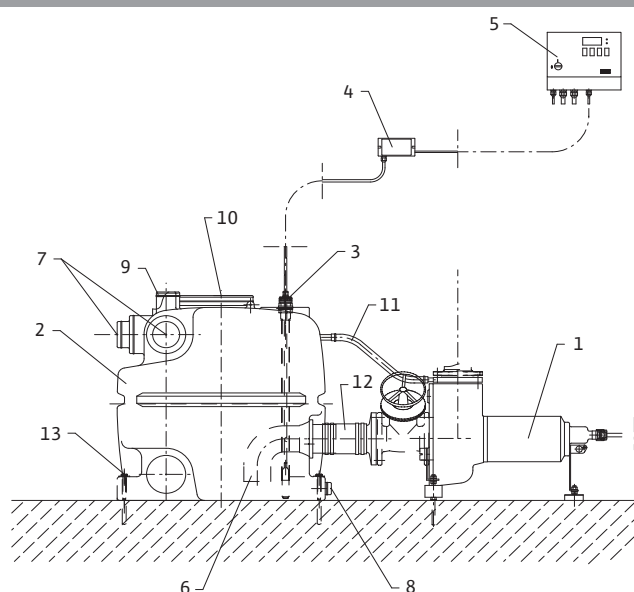
### 6.1 Description of the unit

The DrainLift XXL sewage lifting unit (Fig. 1) is a pre-assembled, fully submersible sewage lifting unit (flooding height: 2 mwc, flooding time: 7 days) with a gas and watertight collection tank and buoyancy safeguards.

It is equipped with three-phase current pumps (3~400 V). The integrated level sensor (Fig. 1, Pos. 3) registers the level in the tank and passes this value on to the switchgear, which automatically switches the pumps on or off. The switchgear is equipped with a main switch, integrated motor protection and automatic/hand/acknowledgement switch. A detailed description of the functions can be taken from the operating instructions for the switchgear.

Inlets can be connected to three sides of the DN 100/DN 150 combination socket. Sockets on the top of the tank allow the pipe connection of a DN 50 inlet and DN 70 vent (see section "Connecting the pipes"). An inspection opening enables easy maintenance of the unit. Attachment slots are provided on both face sides of the collection reservoirs in order to anchor the unit to the floor by means of the supplied fastening elements so that they are anti-buoyant and cannot twist. The double-pump system is equipped with a base-load pump and peak-load pump. The pumps are positioned horizontally in front of the tank and suck the sewage out of the tank through the suction pipes. The suction pipes end in the tank with a 90° elbow facing the base of the tank. This prevents deposits on the base to a great extent. Likewise, a lower residual water volume and a higher switching volume is achieved in this way.

Fig. 1: Description of the unit



1	Pump
2	Tank
3	Level switch with level sensor
4	Zener barrier
5	Switchgear
6	Suction pipe
7	DN 100/DN 150 inlet connecting piece
8	Emergency drain connection, DN 50
9	Ventilation connection
10	Inspection opening
11	Pump ventilation line
12	Suction line (slide valve, optional)
13	Buoyancy safeguards

### 6.2 Function

The discharged sewage is collected in the collection tank of the lifting unit. This is done via sewage inlet pipes which can be connected to the existing pipe sockets as desired.

The DrainLift XXL sewage lifting unit is delivered with switchgear, Zener barrier (accessories kit) and pre-assembled level sensor.

The water level in the tank is registered by means of the integrated level sensor. If the water level rises up to the set activation point, one of the pumps installed in front of the tank(s) is switched on and the collected sewage automatically pumped into the connected external sewage line.

The second pump is additionally activated if the water level continues to rise after the activation of the base-load pump. When the high level is reached, an optical signal is issued, the alarm signal contact is actuated and there is a forced switch-on of all pumps. In order for both pumps to be loaded evenly, pump cycling occurs after each pump cycle.

If one of the pumps fails, the other pump takes over the entire pumping work. The pump(s) are deactivated once the deactivation level is reached.

To avoid sudden valve closures, a follow-up time can be set in the switchgear in order for the base-load pump to be operated up to slurping operation (refer to 8.2.3 for the setting). The follow-up time is the period from when the deactivation point is fallen short of until the base-load pump is switched off.

## 7 Installation and electrical connection

The product is delivered in single components to be assembled in accordance with these installation and operating instructions. All protective equipment is to be activated. Non-observance of the notes on the assembly and installation will put the safety of the product/personnel at risk and invalidate the statements regarding safety.



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

**Incorrect installation and electrical connection can pose a risk of fatal injury.**

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



### **DANGER! Danger of suffocation!**

**Toxic or harmful substances in sewage sumps can cause infections or suffocation.**

- **For safety reasons, a second person must be present at all times when working in sumps.**
- **Make sure the installation location is ventilated sufficiently.**

### 7.1 Preparing the installation



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

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

- **Have installation work carried out only by qualified personnel!**
- **Observe the national and regional regulations!**
- **Observe the installation and operating instructions for the accessories!**
- **Never pull the cable when installing the unit.**

In particular the valid regional regulations (e.g. in Germany, the “Landesbauordnung (federal regulations for buildings), DIN 1986-100”) and, in general, the corresponding specifications of EN 12050-1 and EN 12056 (Gravity Drainage Systems Inside Buildings) should be observed when installing lifting units.

- Observe the dimensions according to the installation plan in the appendix (Fig. 2).
- According to EN 12056-4, installation rooms for lifting units must be of sufficient size so that the unit is freely accessible for operating and maintenance work.
- There must be a sufficient working space of at least 60 cm in width and height available next to and above all parts to be operated and subjected to maintenance.
- The installation room must be frost-proof, ventilated and well-lit.
- The installation surface must be firm (suitable for accommodating dowels), horizontal and flat.
- The course of any existing or still-to-be installed inlet, pressure and ventilation lines is to be checked with regard to connection options to the unit.
- Observe the installation and operating instructions for the accessories!
- Install the switchgear and Zener barrier at a dry and frost-proof location.
- The installation site must be protected from exposure to direct sunlight.
- Observe the accessories and catalogue specifications for outdoor installations.

### 7.2 Installation

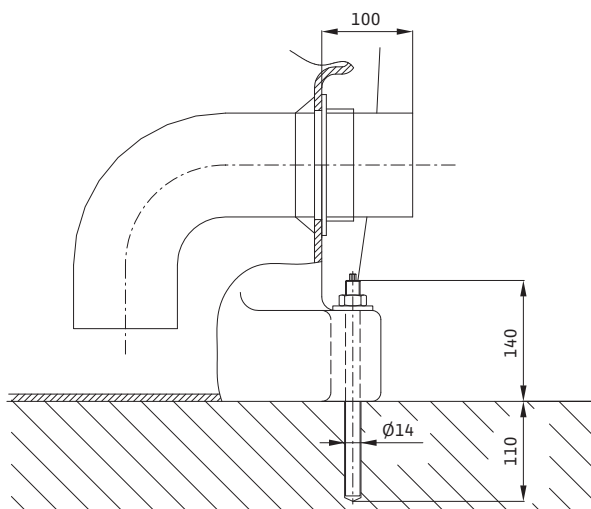
According to EN 12056-4, sewage lifting units must be installed in such a manner that they cannot twist and turn.

Units which threaten to float must be installed so that they are anti-buoyant.

### 7.2.1 Installation of the tank

Align the tank according to the installation plan (Fig. 2, see appendix).

Fig. 3: Tank attachment



Fix the tank to the floor with the supplied fixation material (Fig. 3).

- Mark the position of the drilled holes on the floor for the fixation.
- Drill the holes ( $\varnothing$  14 mm, 110 mm deep) in the floor.



NOTE:

Observe Fig. 7 in the event of several tanks!

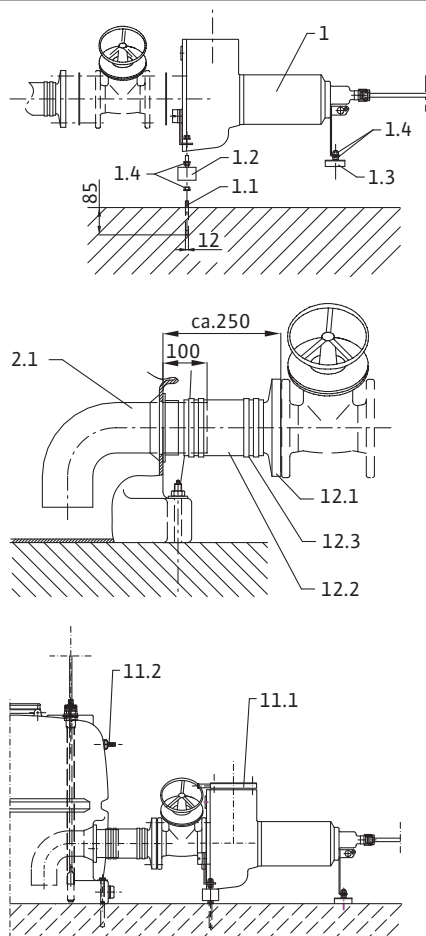
- Install the supplied threaded rods according to the installation drawing and the supplied instruction manual for the mortar cartridges.
- Fasten the tank to the floor so that it is anti-buoyant after the curing of the mortar cartridges.

### 7.2.2 Installation of the pumps

Observe the operating instructions for the pumps for their installation!

Install the pumps according to Fig. 4 and align them according to the installation plan (Fig. 2, see Appendix). If no gate valve (optional accessory) is used in the suction line of the pump, this should be considered accordingly for the clearance to the tank.

Fig. 4: Installation of the pumps



Fix the pumps to the floor with the supplied fixation material (Fig. 4).

- Mark the position of the foundation drilled holes for the dowel pins (Pos. 1.1).
- Drill the holes ( $\varnothing$  12 mm, 85 mm deep) in the floor.



NOTE:

Observe the distance between the pumps and the tank in accordance with the installation plan – important for the installation of the Y-pipe (accessories)!

- Install the pumps with vibration absorbers (Pos. 1.2) on dowel pins and align them with a spirit level. Install the slide valve (accessory!), if available, on the suction side of the pump.
- Establish a connection to the suction pipe (Pos. 2.1) with a flange piece (Pos. 12.1) and a hose (Pos. 12.2).
- Tighten the hose clamps (Pos. 12.3) carefully with a **tightening torque of 5 Nm!**

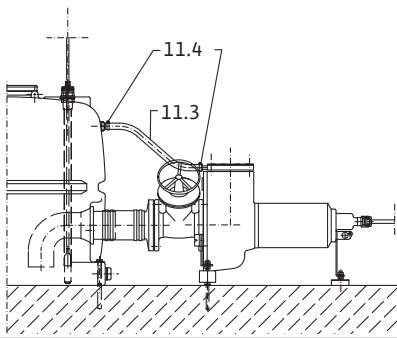


NOTE:

The suction pipe must lead into the tank in a horizontal position – adjustments can be made on the vibration absorbers (Pos. 1.2; 1.3; 1.4)!

- Install the vent flange (Pos. 11.1) and the supplied flat gasket on the pump

Fig. 4: Installation of the pumps (continued)



- Connect the supplied DN 19 hose piece (Pos. 11.3) to the vent flange and hose connection (Pos. 11.2) on the tank.
- Tighten the hose clamps (Pos. 11.4) carefully with a **tightening torque of 5 Nm!**

### 7.3 Connection of the piping

All piping must be installed without tension in a noise-insulated and flexible manner. The unit must not be subjected to any pipeline forces or torques. The pipes (including valves) are to be fastened and supported in such a manner that neither tensile nor compressive forces are applied to the unit.

All line connections must be established with care. Carefully tighten any connections with hose clamps (**tightening torque of 5 Nm**).

Do not reduce the pipe diameter in the direction of flow.

According to EN 12056-4, a gate valve is always required in the inlet pipe in front of the tank and behind the non-return valve (Fig. 9).

#### 7.3.1 Discharge piping



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

**Pressure surges which occur (e.g. when closing the non-return valve) may be several times higher than the pump pressure, depending on the operating conditions.**

- **The longitudinal force-fitted connection elements of the piping should therefore be observed in addition to the corresponding pressure resistance.**
- **The discharge piping, including all installation parts, must reliably withstand the operating pressures which occur.**
- **Avoid long horizontal pipe sections, since they contribute to fluid hammers of the non-return valves and thus dangerous pressure surges that may exceed the permissible value and thus pose a risk to the unit and the pressure pipe. If they are unavoidable, appropriate onsite measures should be taken (e.g. additional valve with counterweight).**

To prevent any backflow from the main public sewer, the discharge piping is to be designed as a "pipe loop" of which the bottom edge must be at the highest point above the locally defined backflow level (usually street level) (see also Fig. 9).

The discharge piping is to be installed so that it is frost-proof.

Fit first the non-return valves and then the DN 80 or DN 100 gate valve (available as accessory, nuts, discs, flat gasket supplied) onto the pressure connection of the unit (pump pressure socket with vent flange). Support the weight of the valves!

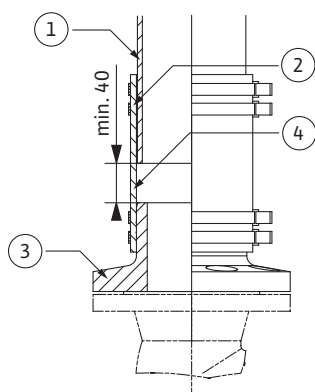


##### **CAUTION! Risk of property damage!**

**Using valves which are not Wilo accessories may cause malfunctions or damage to the product.**

Then connect the discharge piping directly to the gate valve (flange piece, flexible hose section, flat gasket and connection elements supplied).

Fig. 5: Flexible discharge pipe connection



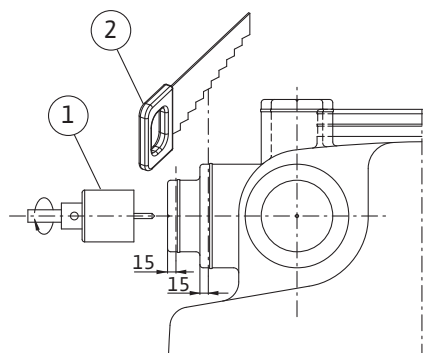
To avoid the transfer of forces and vibrations between the unit and the discharge piping, the connection should be flexible. Therefore keep a distance between the flange piece and pressure pipe (Fig. 5).

1	Pressure pipe
2	Hose sleeve
3	Flange piece
4	Keep a distance of approx. 40-60 mm

### 7.3.2 Tank connection piece

Prepare the tank connecting pieces to be connected according to Fig. 6.

Fig. 6: Preparation of the tank connecting pieces to be connected



- Cut out the base of the connecting piece as far as possible with a keyhole saw of appropriate size (Pos. 1).
- If no keyhole saw is available, saw off the base approx. 15 mm in front of the annular bead (Pos. 2).



**CAUTION! Risk of property damage!**  
Leakages can be caused by damaging or removing the annular bead.  
**The annular bead must be completely present!**

- Remove any burrs and excess material.
- Establish the connections carefully with the supplied hose and hose clamps.

#### DN 100/DN 150 inlet

Connect the DN 100 or DN 150 inlet pipe(s) to the tank according to Fig. 6 only at the four inlet connecting pieces.



**CAUTION! Risk of property damage!**  
Connecting the inlet line to any other point may cause leakages, functional impairments and damage to the unit.  
**Use the provided connecting pieces only!**

Install the inlet pipes so that they can run empty of their own accord.

According to EN 12056-4, a gate valve (accessory) is required in the inlet pipe in front of the tank if the unit is installed inside the building in (Fig. 9).

#### Bleeding (DN 70)

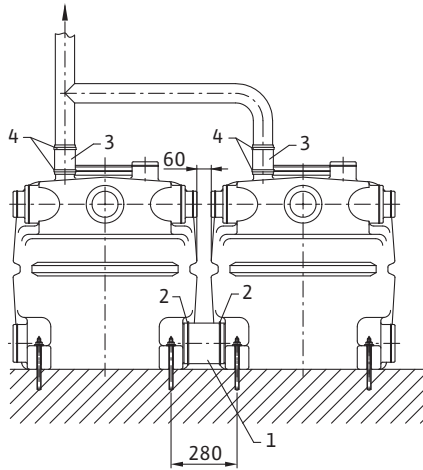
EN 12050-1 stipulates that the unit must be connected to a ventilation line which vents via the roof and is absolutely necessary for the perfect working order of the unit. The connection is established with the supplied hose section  $\varnothing$  78 mm at the DN 70 connecting piece on the top of the tank (Fig. 6, Fig. 7).

Install the piping so that it can run empty of its own accord.

#### Connection of two tanks

At units with two tanks, the tanks have to be connected to the bottom DN 150 connecting piece with the supplied DN 150 hose section with clamps (Fig. 7).

Fig. 7: Ventilation connection and tank connection for two tanks

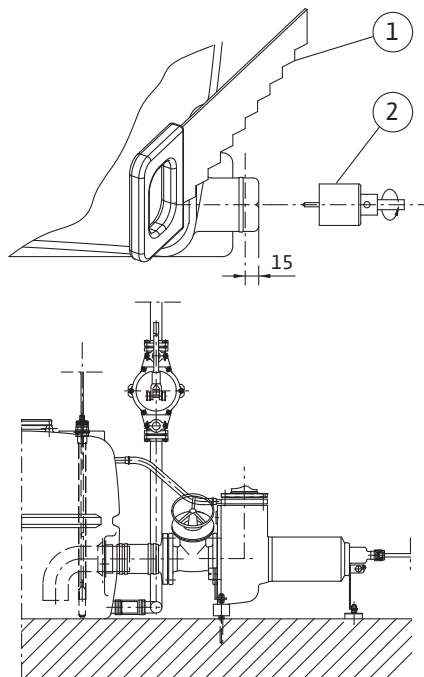


- 1 Hose  $\varnothing$  160 x 180 mm
- 2 Hose clamps, 160-180/12
- 3 Hose,  $\varnothing$  78 x 130 mm
- 4 Hose clamps, 80-100/12

### Emergency drain connection (diaphragm hand pump)

It is always recommended to install a diaphragm hand pump (accessory) for draining the tank in an emergency. Four connecting pieces ( $\varnothing$  50 mm) are available near the floor for this purpose. The connection is established according to Fig. 8 with the supplied DN 50 hose section and hose clamps.

Fig. 8: Emergency drain connection (diaphragm hand pump)



- The connecting piece is opened by sawing off (Pos. 1) the base or with a suitable keyhole saw (Pos. 2).
- Remove any burrs and excess material.
- Establish the connections carefully with the supplied hose section and hose clamps.

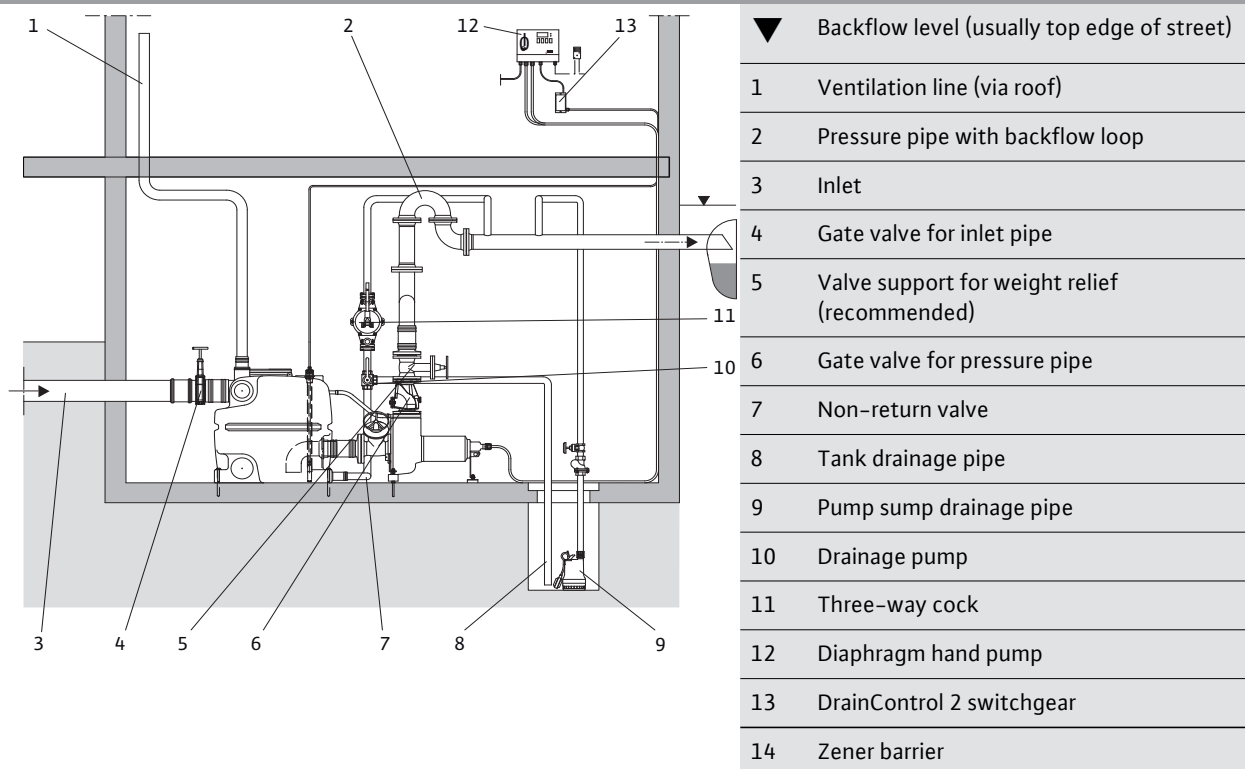
### 7.3.3 Basement drainage

According to EN 12056-4, a pump sump is to be provided for the automatic drainage of the installation room for faeces lifting units (Fig. 9).

- Select the pump (Pos. 10) according to the delivery head of the unit. The dimensions of the pit in the floor of the installation room should be at least 500 x 500 x 500 mm.

- A three-way cock (Pos. 11, accessory) can be switched over to allow the manual drainage of both the tank as well as the pump sump by means of a diaphragm hand pump (Pos. 12).

Fig. 9: Installation example



#### 7.4 Electrical connection



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

**Improper electrical connections pose a risk of fatal injury due to electric shock.**

- **Have the electrical connection established only by an electrician approved by the local electricity supplier and in accordance with the applicable local regulations.**
- **Observe the installation and operating instructions for the switchgear and the accessories.**
- **Disconnect the mains prior to any work.**

- Wire the switchgear with the Zener barrier, level sensor and pumps in accordance with the supplied wiring diagram.
- The current type and voltage of the mains connection must correspond to the details on the rating plate.



**NOTE:** To increase the operational reliability, it is mandatory for an automatic circuit breaker (which disconnects all power leads) with K characteristic to be used.

- Earth the unit according to regulations.
- Lay the connecting cable in accordance with the applicable standards/regulations and the wire assignments.
- Provide a residual-current-operated protection switch  $\leq 30$  mA in accordance with the applicable local regulations.
- The switchgear, Zener barrier and alarm must be installed in dry, overflow-proof rooms. The national regulations are to be observed for the positioning [in Germany: VDE 0100].
- Ensure the separate supply of the alarm switchgear in accordance with the rating plate data. Connect the alarm switchgear.
- Apply a clockwise rotating field to the switchgear.
- The technical connection conditions of the local energy supply company are to be observed for the connection.

#### 7.4.1 Switchgear mains connection

- Mains connection 3~400 V + N + PE (L1, L2, L3, N, PE)
  - Mains voltage preselection in the device:  
Bridge the terminal according to the note "3 x 400 V +N" on the printed circuit board.
- Mains connection 3~400 V + PE (L1, L2, L3, PE)
  - Mains voltage preselection in the device:  
Bridge the terminal according to the note "3 x 400 V" on the printed circuit board.
- Connect the clockwise rotating field.

#### 7.4.2 Mains connection of the pumps

- The pumps are to be wired with the switchgear.
- Undo the housing screws and remove the terminal cover.
  - Feed the cable ends of the pump connection cable through the threaded cable connections.
  - Connect the cable ends as indicated on the terminal strips and in accordance with the details in the wiring diagram.

#### 7.4.3 Level sensor connection



##### **DANGER! Danger of explosion!**

**There is a danger of explosion when using a level sensor in potentially explosive areas. Always use a breakdown barrier (Zener barrier) between the switchgear and the level sensor in potentially explosive areas.**

**Observe the safety instructions in the operating instructions for the breakdown barrier.**



##### NOTE:

Observe the correct polarity when connecting the level sensor and the Zener barrier.

The level sensor must be wired directly with the Zener barrier.

- Undo the housing screws and remove the cover.
- Feed the cable ends from the level sensor through the cable bushing.
- Connect the cable ends in accordance with the details in the wiring diagram:
  - Brown wire (+) to terminal 23 (+) of the Zener barrier
  - Green wire (-) to terminal 13 (-) of the Zener barrier
  - Blue wire (shield) to PE terminal
- The Zener barrier cable is to be connected to the (+) and (-) terminals in the switchgear with a signal level of 4–20 mA in two-wire technology.



##### NOTE:

Connect the Zener barrier to the equipotential bus bar (PA) of the unit (min. 4.0 mm<sup>2</sup> copper cable).

- Close the cover of the Zener barrier and switchgear and tighten the housing screws.

#### 7.4.4 Alarm signal connection

An external alarm switchgear, a horn or a flash light can be connected via a potential-free contact (SSM) in the switchgear.

Contact load:

- Permitted minimum: 12 V DC, 10 mA
- Permitted maximum: 250 V AC, 1 A

##### Connection of the external alarm signal



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

**There is a danger of electric shock by touching live components when working on the open switchgear.**

**This work may only be carried out by qualified personnel.**

**To connect the alarm signal, switch off the device so that it is voltage-free and secure it against being switched back on again by unauthorised persons.**



##### NOTE:

Observe the installation and operating instructions for the DrainControl switchgear and the alarm switchgear!



- Switch off the switchgears so that they are voltage-free!
- Open the cover of the switchgear.
- Remove the protective cover from the threaded cable connection.
- Feed the cable through the screwed connection and connect it to the potential-free alarm contact in accordance with the wiring diagram.
- After connecting the cable for the alarm signal, close the cover of the switchgear and tighten the threaded cable connection.
- Switch on the switchgears.

## 8 Commissioning

It is recommended to have commissioning performed by Wilo's customer service.

### 8.1 Inspection of the unit



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

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

- **Clean the entire unit to remove any dirt, in particular solids, prior to commissioning.**
- **Observe the installation and operating instructions for the pump, switchgear and accessories!**

Commissioning may be carried out only if the relevant safety regulations, VDE regulations as well as regional regulations are met.

- Verify the presence and correct versions of all required components and connections (inlets with check valve, tank connection, discharge pipe with non-return valve and check valve, suction line, ventilation via roof, floor fixation, electrical connection).
- Check the setting of the venting screw of the non-return valve (accessory).



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

**If the venting screw of the non-return valve is screwed too deep into the housing, this may cause damage to the valve and unit or considerable noise. Make sure the position of the venting screw ensures the closing of the valve!**

### 8.2 Initial commissioning

- Switch on the unit by the main switch.
- Check or make the settings in accordance with Section 8.2.1 and 8.2.2.
- Open the check valves.
- Fill the unit via the connected inlet until each pump has pumped out at least once and the discharge piping is completely filled.  
The filling level in the tank must not rise when the discharge piping is filled and the inlet closed. If the filling level continues to rise, the flap of the non-return valves is leaky (inspection of the flap and the position of the venting screw required).  
The "manual mode" button on the switchgear can be pressed before reaching the activation level in the tank to test the starting procedure.
- Check the unit and pipe connections for impermeability.
- Fill the unit with a maximum possible inlet and check whether the unit is working perfectly. Observe in particular:
  - The correct position of the switching points.
  - Sufficient volume flow of the pumps at maximum flow while the pumps are running (level muss drop).
  - Vibration-free operation of the pump without air bubbles in the fluid



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

**Air in the fluid causes considerable vibrations which can destroy the pumps and the entire unit, depending on the respective operating conditions of the pumps. The minimum water level in the tank for the "Pump 1 ON switching point level" (see Technical data) must be ensured.**

### 8.2.1 Switchgear settings

During the initial commissioning it is necessary to set the unit parameters on the switchgear (see installation and operating instructions for the switchgear).

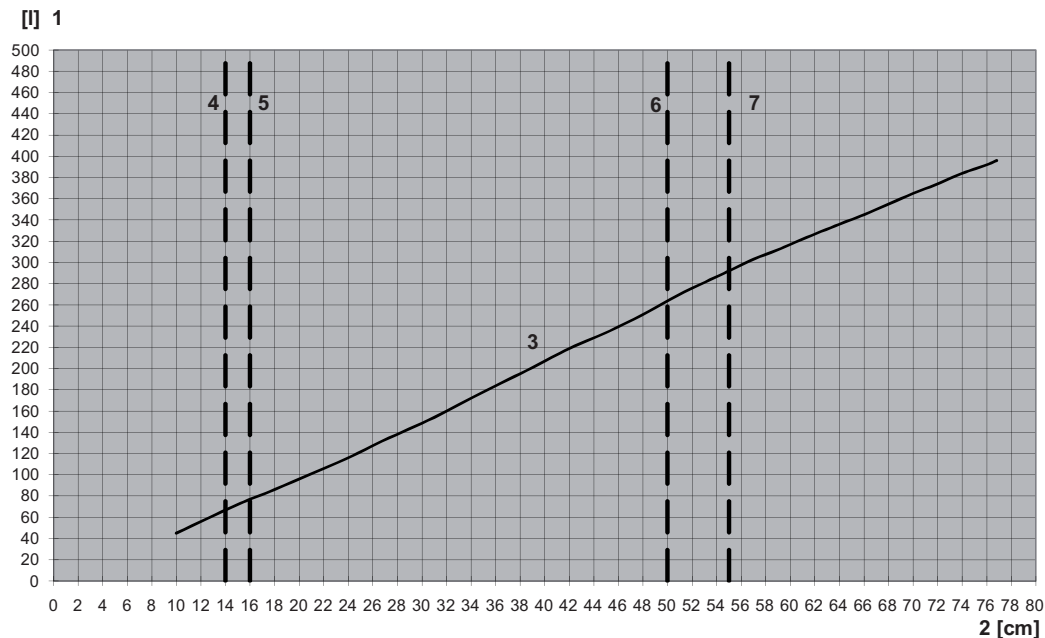
- Compare the default value of the motor current with the details on the motor's rating plate and, if necessary, correct the settings.
- Set the maximum value of the sensor to 1.0 mwc in the menu item 2.25 "Sensor". A data record with factory settings for the activation and deactivation level and the alarm level is loaded from the memory.
- Set, check and, if necessary, correct the activation and deactivation level and alarm level.

### 8.2.2 Adjustment of the switching level (differently from the factory setting)

The level for switching the pumps and the alarm on the switchgear can be set differently from the factory settings (see switchgear operating instructions) and can be selected as desired in steps of 1 cm.

According to EN 12056-4, the switching volume should be sufficient to allow the volume of the discharge piping to be replaced during each pump cycle. In addition, the switching level from the tank filling curve can be defined in accordance with Fig. 10. However, the level specifications in the technical data table should be observed (minimum values for activation and deactivation level). If the pump activation level is set higher than the inlet height, there will be a risk of backflow in the connected objects.

Fig. 10: Tank volume based on the filling level



- |   |  |
|---|--|
| 1 Tank filling volume 1 [l]                   | 4 Minimum pump OFF level (for TP80 pumps)  |
| 2 Filling level above installation level [cm] | 5 Minimum pump OFF level (for TP100 pumps) |
| 3 Filling level curve (1 tank)                | 6 Minimum pump ON level (for TP80 pumps)   |
|   | 7 Minimum pump ON level (for TP100 pumps)  |

### 8.2.3 Adjustment of the follow-up time

The pump follow-up time is to be set in the "Follow-up" menu in the switchgear.

It causes the further operation of the base-load pump by the set time value after reaching the deactivation level. The switching volume can be increased in this way. The follow-up time also causes slurping operation (pumping of a water-air mixture). In the event of unit-related fluid hammers of the non-return valve, slurping operation can reduce or even eliminate these fluid hammers.



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

**The follow-up time should be activated only for pumps with vortex impellers, since pumps with non-clog impellers tend to vibrate heavily in slurping operation and thus put the durability of the pump and unit at risk.**

**Since only pumps with non-clog impellers are used in the DrainLift XXL, no follow-up time may be set for safety reasons.**

### 8.3 Decommissioning

The unit must be decommissioned prior to maintenance or dismantling work. Observe the information in the installation and operating instructions for the TP pumps!

#### Dismantling and installation

- Dismantling and installation by qualified personnel only!
- Disconnect the unit from the mains supply and secure it against being switched back on again by unauthorised persons!
- Depressurise any pressure parts before carrying out any work on them.
- Close gate valves (inlet and pressure pipe).
- Empty the collection reservoir (e.g. with diaphragm hand pump).
- Unscrew and remove the maintenance cover for cleaning.



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

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

Check the unit for contaminants and clean it if necessary in the event of long standstill periods.

## 9 Maintenance



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

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

- **Disconnect the unit from the mains supply and secure it against being switched on again by unauthorised persons prior to any maintenance and repair work.**
- **Have work on the electrical part of the unit carried out only by a qualified electrician as a basic principle.**



#### **DANGER!**

**Toxic or harmful substances in sewage can cause infections or suffocation.**

- **Ventilate the installation site sufficiently prior to any maintenance work.**
- **Use appropriate protective equipment during maintenance work to prevent any risk of infection.**
- **For safety reasons, a second person must be present at all times when working in sumps.**
- **Danger of explosion when opening (avoid open sources of ignition)!**
- **Observe the installation and operating instructions for the unit, switchgear and accessories!**

Read the “Decommissioning” chapter prior to maintenance work.

The unit operator must make sure all the maintenance, inspection and installation work is performed by authorised and qualified personnel who have informed themselves sufficiently by studying the installation and operating instructions in detail.

- Sewage lifting units are to be subjected to maintenance by experts 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 should be compiled.

It is recommended to have the unit serviced and inspected by Wilo's customer service.



**NOTE:** Expensive repairs can be avoided and trouble-free operation of the unit achieved with a minimum of maintenance by compiling a maintenance plan. Wilo's customer service is available for commissioning and maintenance work.

Install and connect the unit as described in the chapter “Installation and electrical connection” after maintenance and repair work. Switch on the unit as described in the “Commissioning” chapter.

## 10 Faults, causes and remedies

**Have faults remedied only by qualified personnel.**

**Observe the safety instructions in 9 Maintenance.**

- Observe the installation and operating instructions for the unit, switchgear and accessories!
- If the operating fault is unable to be remedied, please consult a specialist technician, Wilo service or the closest Wilo representative.

Faults	Code: cause and remedy
Pump is not pumping	1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18
Volume flow too low	1, 2, 3, 4, 5, 7, 8, 11, 12, 13
Current consumption too high	1, 2, 3, 4, 5, 7, 13
Delivery head too small	1, 2, 3, 4, 5, 8, 11, 12, 13, 16, 18
Pump running roughly/loud noise	1, 2, 3, 9, 12, 13, 14, 16

Cause	Remedy <sup>1)</sup>
1	Pump inlet or impeller clogged • Remove deposits from the pump and/or tank
2	Incorrect direction of rotation • Swap two phases of the current feed
3	Wear to inner parts (impeller, bearing) • Replace worn parts
4	Operating voltage too low
5	Running on two phases (only with 3~ version) • Replace defective fuse • Check line connections
6	Motor not running, since no voltage available • Check electrical installation
7	Motor winding or electrical line defective <sup>2)</sup>
8	Non-return valve clogged • Clean non-return valve
9	Excess water level drop in the tank • Check level sensor with switching level
10	Level sensor faulty • Check level sensor
11	Slide valve in pressure pipe not or insufficiently open • Open slide valve completely
12	Impermissible amount of air or gas in fluid • Check inlet for air bubbles in tank; check deactivation level.
13	Radial bearing in motor defective <sup>2)</sup>
14	Unit-related vibrations • Check piping for flexible connection
15	Temperature monitor for winding monitoring switched off due to excessive winding temperature • Motor switches on again automatically after cooling down.
16	Pump ventilation clogged • Clean ventilation line
17	Thermal overcurrent monitor triggered • Reset overcurrent monitor in switchgear.
18	Geodesic delivery head too high <sup>2)</sup>

<sup>1)</sup> To remedy faults on parts under pressure, depressurise them first (vent the non-return valve and drain the tank, if necessary with diaphragm hand pump).

<sup>2)</sup> Further enquiry required

**11 Spare parts**

Spare parts are ordered from a local specialist retailer and/or Wilo's customer service. To avoid queries and incorrect orders, all details on the rating plate should be submitted for each order.

**12 Disposal**

Damage to the environment and risks to personal health are avoided by the proper disposal and appropriate recycling of this product.

1. Draw on public or private waste management companies for the disposal of the product or components.
2. For more information on the correct disposal, please contact your local council or waste disposal office or the supplier from whom you obtained the product.

**Subject to technical change without prior notice!**

Fig. 2: DrainLift XXL 840

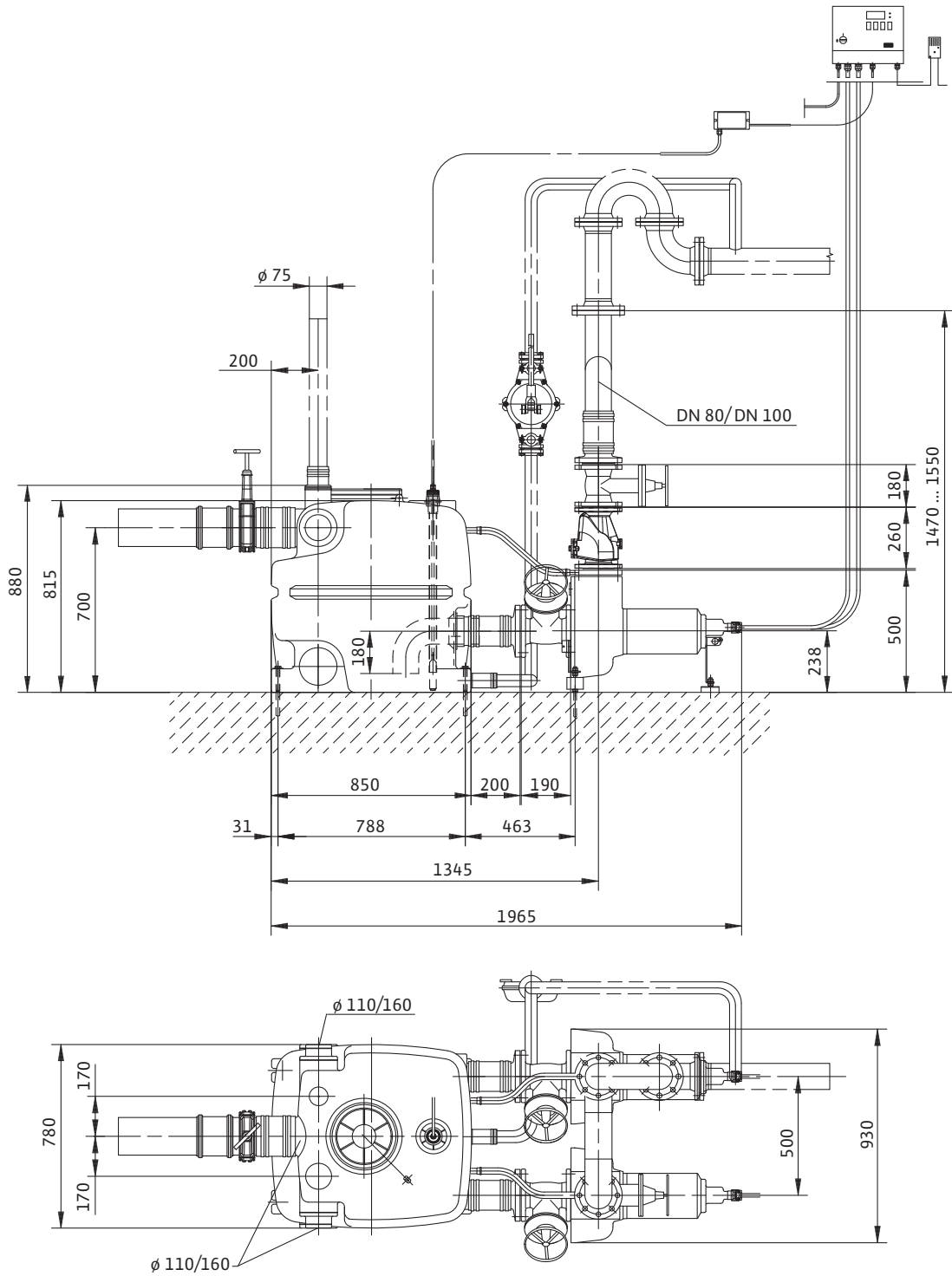


Fig. 2: DrainLift XXL 880

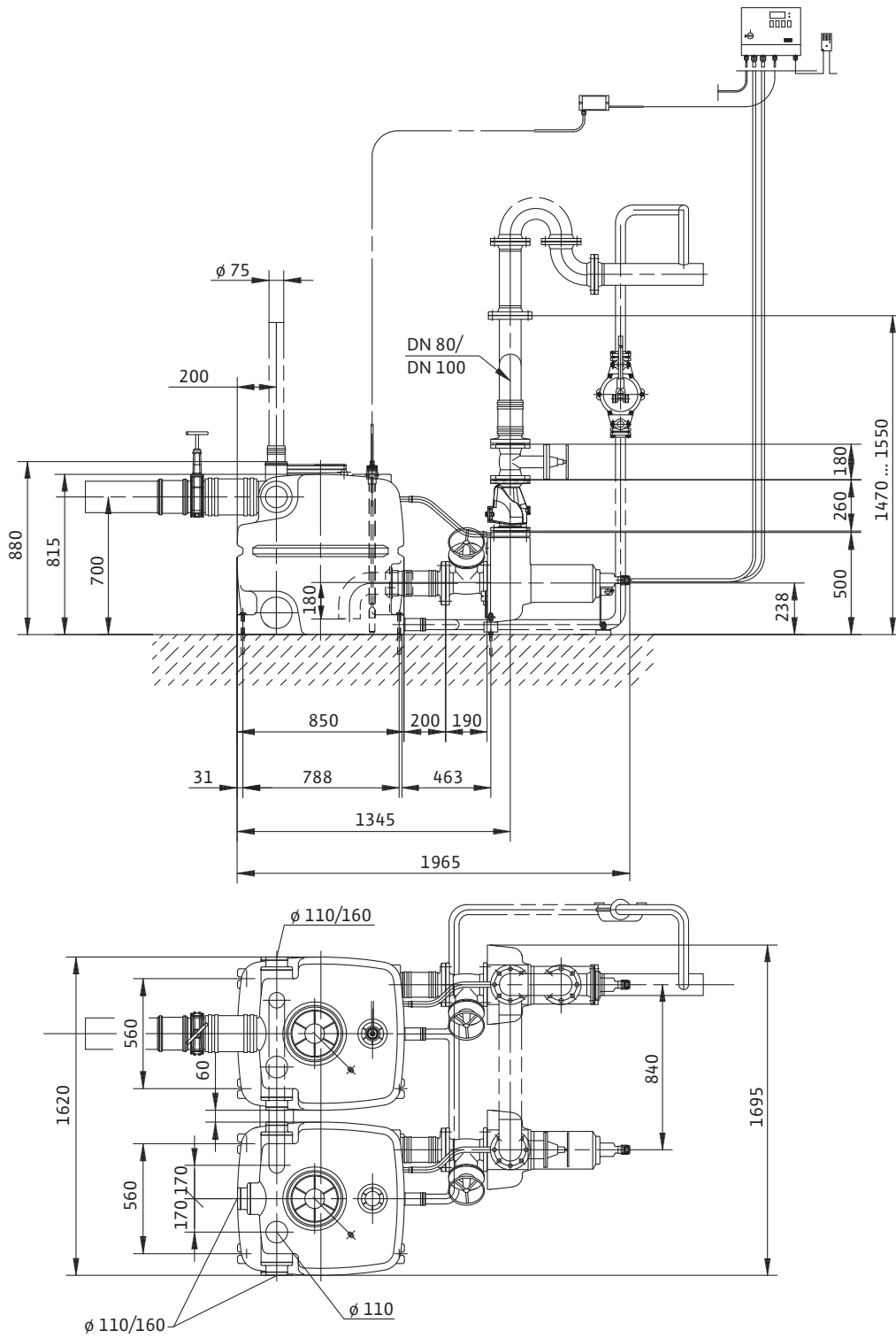


Fig. 2: DrainLift XXL 1040

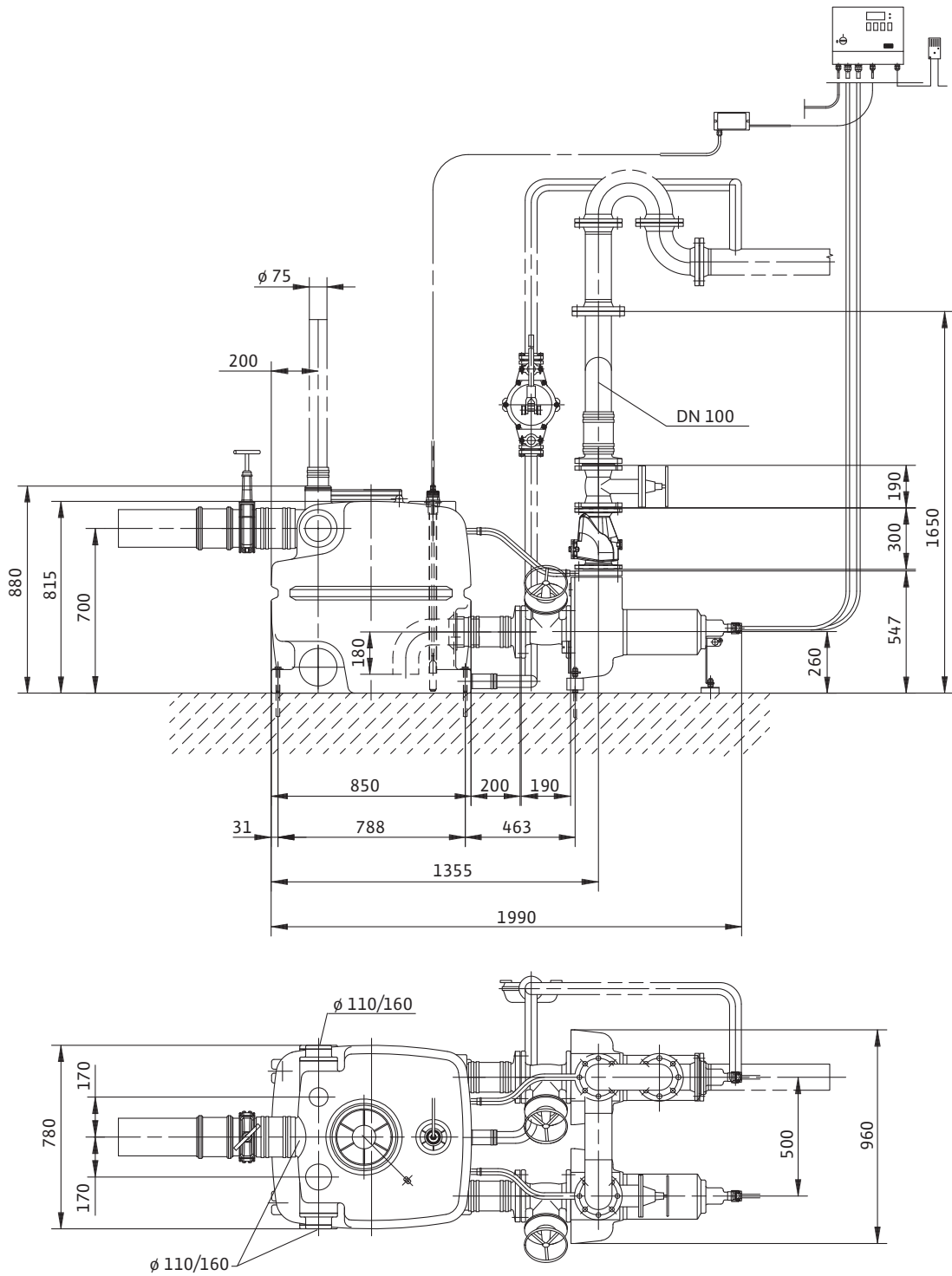
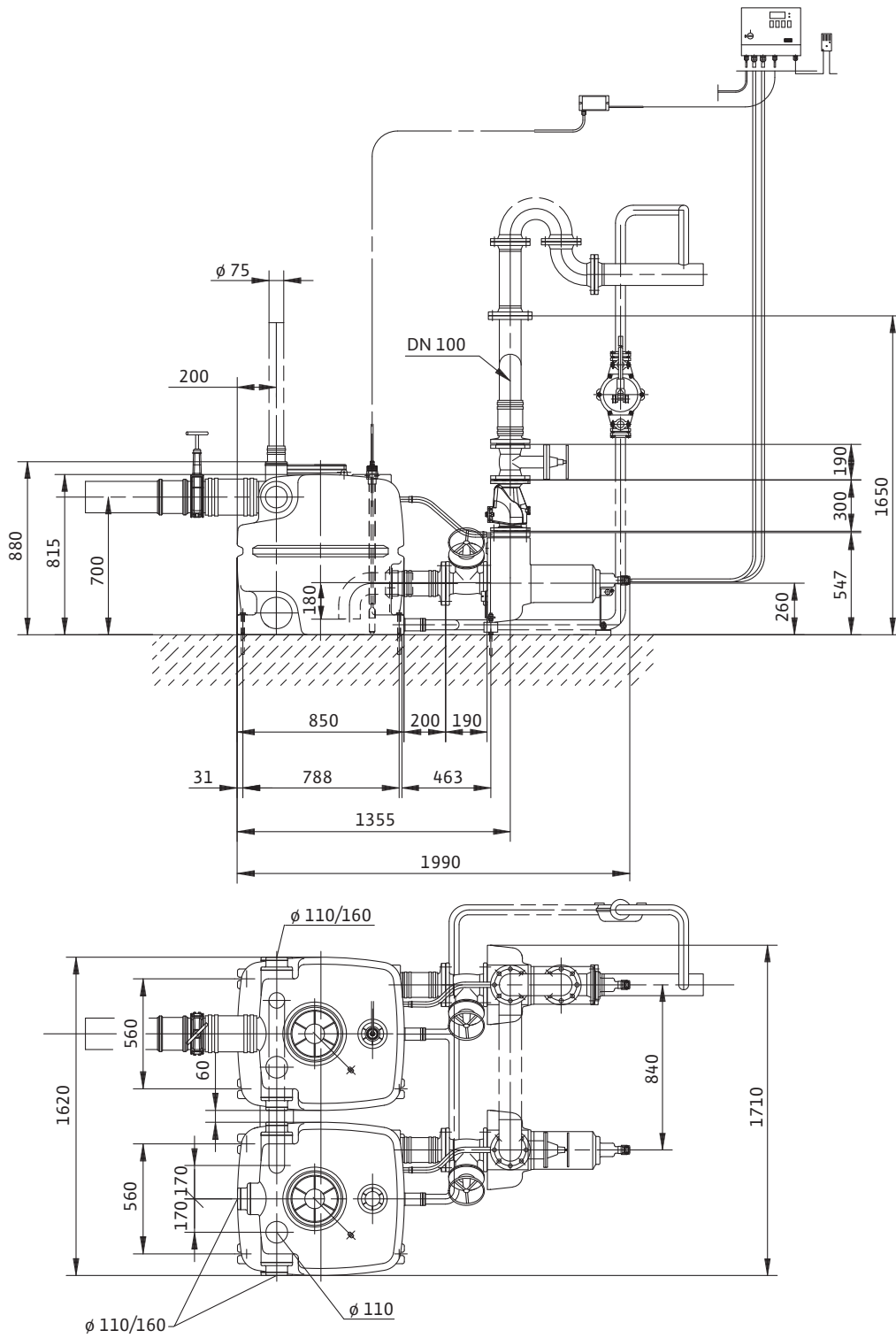




Fig. 2: DrainLift XXL 1080



## **D EG – Konformitätserklärung**

## **GB EC – Declaration of conformity**

## **F Déclaration de conformité CE**

(gemäß 2006/42/EG Anhang II,1A, 89/106/EWG Anhang 4 und 2004/108/EG Anhang IV,2,  
according 2006/42/EC annex II,1A, 89/106/EEC annex 4 and 2004/108/EC annex IV,2,  
conforme 2006/42/CE appendice II,1A, 89/106/CEE appendice 4 et 2004/108/CE appendice IV,2)

Hiermit erklären wir, dass die Bauart der Baureihe :

**DrainLift XXL**

*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:*

**EN ISO 14121-1**

**EN 55014-1**

**EN 60034-1**

**EN 55014-2**

**EN 60204-1**

**EN 61000-3-2**

**EN 60335-2-41**

**EN 61000-3-3**

**EN 60730-2-16**

**DIN EN 12050-1**

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 :*

WILO SE, Werk Hof

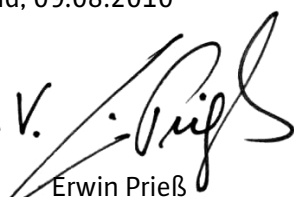
Division Submersible & High Flow Pumps

Quality

Heimgartenstr. 1-3

95030 Hof, Germany

Dortmund, 09.08.2010

i. V.   
Erwin Prieß  
Quality Manager



WILO SE

Nortkirchenstraße 100

44263 Dortmund

Germany

**NL**  
**EG-verklaring van overeenstemming**  
Hiermede 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/EWG  
normas harmonizadas aplicadas, especialmente:  
ver página anterior

**FIN**  
**CE-standardinmukaissuuloste**  
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/EWG** seuraavien täsmennyksin 93/68/EWG  
  
käytetty yhteensovitettua standardia, 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**  
Čile 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/EHS** ve znění 93/68/EHS  
  
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/ΕΓ.  
**Ηλεκτρομαγνητική συμβατότητα ΕΚ-2004/108/ΕΚ**  
**Οδηγία κατασκευής 89/106/ΕΟΚ** όπως τροποποιήθηκε 93/68/ΕΟΚ  
  
Εναρμονισμένα χρησιμοποιούμενα πρότυπα, ιδιαίτερα:  
βλέπε προηγούμενη σελίδα

**EST**  
**EÜ vastavusdeklaratsioon**  
Käesolevaga tõendame, et see toode vastab järgmistele asjakohastele direktiividele:  
**Masinaidirektiiv 2006/42/EÜ**  
Madalpingedirektiivi kaits-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 direktiiviaga 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 rilevanti 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.  
  
**Kompatibilità 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- försäkrän**  
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/EWG** med följande ändringar 93/68/EWG  
tillämpade harmoniserade normer, i synnerhet:  
se föregående sida

**DK**  
**EF-oversensstemmelseserklæring**  
Vi erklærer hermed, at denne enhed ved levering overholder følgende relevante bestemmelser:  
**EU-maskindirektiver 2006/42/EG**  
Lavsædningdirektivets mål om beskyttelse overholdes i henhold til bilag I, nr. 1.5.1 i maskindirektiv 2006/42/EF.  
  
**Elektromagnetisk kompatibilitet: 2004/108/EG**  
**Produktkonstruktionsdirektiv 98/106/EWG** følgende 93/68/EWG  
  
anvendte harmoniserede standarder, særligt:  
se forrige side

**PL**  
**Deklaracja Zgodności WE**  
Niniejszym deklarujemy 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/WG.  
  
**dyrektywa dot. kompatybilności elektromagnetycznej 2004/108/WE**  
**dyrektywa w sprawie wyrobów budowlanych 89/106/EWG** w brzmieniu 93/68/EWG  
stosowanymi normami zharmonizowanymi, a w szczególności:  
patrz poprzednia strona

**TR**  
**CE Uygunluk Teyid Belgesi**  
Bu cihazın teslim edilidigi şekliyle aşağıdaki standartlara uygun olduğunu teyid ederiz:  
**AB-Makina Standartları 2006/42/EG**  
Aşağıda belirtilenlerin koruma hedefleri, 2006/42/AT makine yönetgesi Ek I, no. 1.5.1'e uygundur.  
  
**Elektromanyetik Uyumluluk 2004/108/EG**  
**Ürün imalat yönetmeliği 89/106/EWG** ve takip eden, 93/68/EWG  
  
kısım 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**  
Zemsprieguma direktīvas drošības mērķi tiek ievēroti atbilstoši Mašīnu direktīvas 2006/42/EK pielikuma I, Nr. 1.5.1.  
**Elektromagnētiskās savietojamības direktīva 2004/108/EK**  
**Direktīva par būvizrādājumiem 89/106/EK** pēc labojumiem 93/68/EEG piemēroti harmonizēti standarti, tai skaitā:  
skatīt iepriekšējo lappusi

**SLO**  
**ES – izjava o skladnosti**  
Izjavljamo, da dobavitelne vrste izvedbe te serije ustrezajo sledecim zavednim 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/EGS** v verziji 93/68/EGS  
  
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 verne mål overholdes i samsvar med vedlegg I, nr. 1.5.1 i maskindirektiv 2006/42/EF.  
**EG-EMV-Elektromagnetisk kompatibilitet 2004/108/EG**  
**Byggevederdirektiv 89/106/EWG** med senere tilføyselser 93/68/EWG  
  
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 kifizetésűségű irányelv védelmi előírásait a 2006/42/EK gépekre vonatkozó irányelv I. függelékének 1.5.1. sz. pontja szerinti teljesíti.  
**Elektromágneses összeférhetőség irányelv: 2004/108/EK**  
**Építési termékek irányelv 89/106/EGK** és azt kiegészítő 93/68/EGK 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.  
**Электромгнитная устойчивость 2004/108/EG**  
**Директива о строительных изделиях 89/106/EWG** с поправками 93/68/EWG  
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/EWG** cu amendamentele ulterioare 93/68/EWG  
standarde armonizate aplicate, îndeosebi:  
vezi pagina precedentă

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

**BG**  
**EO-Декларация за съответствие**  
Декларираме, че продуктът отговаря на следните изисквания:  
  
**Машина 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 съместимост – директива 2004/108/EO**  
**Директива за строителни материали 89/106/ЕИО** изменени 93/68/ЕИО  
Хармонизирани стандарти:  
вж. предната страница



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Stand August 2010