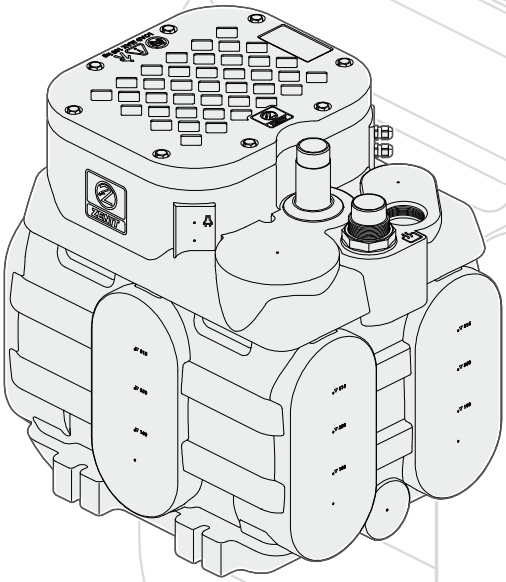
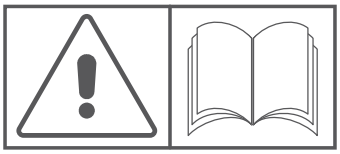
better together

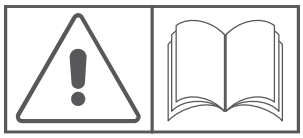
blueBOX

Stazione di sollevamento
Lifting station
Station de relevage
Hebeanlage
Estación elevadora
Подъемная станция





IT	**Manuale per installazione e uso sicuro**
EN	**Safety, Installation and Operations Manual**
FR	**Manuel d'installation et d'utilisation en toute sécurité**
DE	**Handbuch für die Installation und den sicheren Betrieb**
ES	**Manual de instalación y uso seguro**
RU	**Руководство по установке и безопасной эксплуатации**



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IT ETICHETTA DI IDENTIFICAZIONE
EN IDENTIFICATION LABELS
FR ETIQUETTE D'IDENTIFICATION

DE TYPENSCHILD
ES ETIQUETA DE IDENTIFICACIÓN
RU ИДЕНТИФИКАЦИОННАЯ ЭТИКЕТКА

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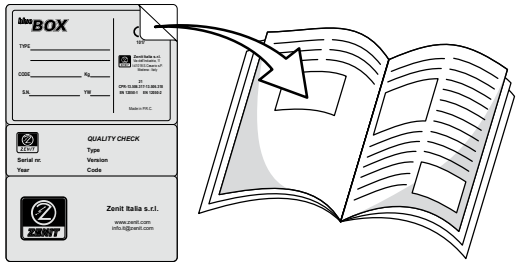

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For proper installation and safe use of the product, read this manual carefully and keep it in an easily accessible and clean place for future reference.
Improper use of the product may cause even serious damage to property and personal injury, abnormal operation, and may void the warranty.

1. GENERAL INFORMATION

1.1 Identification of the manufacturer
ZENIT Italia s.r.l. - via dell'Industria, 11 - 41018 S. Cesario sul Panaro (MO) - Italia

1.2 Meaning of the symbols used in the manual

Hazard regarding operator safety and product protection

Presence of electrical hazard

Biohazard related to the presence of contaminated liquids

CAUTION! Important information requiring particular attention

1.3 Safety warnings
- The equipment which is the subject of this manual is not suitable for use by incompetent and/or inexperienced persons: keep out of reach of children;
- Installation and maintenance operations must be carried out by competent technical personnel who understand the contents of the manual and are trained in the residual risks related to electrical equipment;
- Make sure that no person can accidentally fall into the tank: install a protective railing if necessary;
- The equipment must be disconnected from the power supply during handling, installation or disinstallation;
- Pay careful attention to the risk posed by gases and vapours within the work area;
- Do not ingest or inhale any component of the equipment;
- People and animals should not immerse themselves or come into contact with the liquid contained in the tank;
- Do not bring the free end of electrical cables into contact with any liquid;
- The electrical system must have an efficient ground connection;
- Make sure that the equipment is properly installed before connecting the power supply;
- Do not use the equipment for purposes other than those for which it was designed and constructed. The manufacturer is not liable for personal injury or damage to property caused by the equipment if it is used in a manner other than what is described in the manual, or if maintenance and safety requirements are not met. Before installation in chemically aggressive environments, contact the manufacturer to verify material compatibility;
- Do not modify the electric pump or parts thereof for any reason (connections, drilling, finishes, etc...);
- It is mandatory for the installer to verify the correct environmental conditions of use so as to ensure safety and hygiene.
- The user must follow the safety regulations in force in the country of use, as well as the rules dictated by common sense, and ensure that periodic cleaning and maintenance operations are carried out properly;
- The customer is responsible for assigning the responsibilities of personnel authorised to use the product;
- All indications provided in this manual must, however, be harmonized with the regulations in force in the place of installation.

1.4 Qualification of installation and maintenance personnel
Personnel involved in the installation and maintenance of the product must be trained in the risks which cannot be eliminated related to electrical equipment working in contact with biological liquids.
They must, in addition, be able to read and understand the contents of the technical documentation attached to the product and in particular the wiring diagrams.

1.5 Personal protective equipment (PPE) to be used
Use compliant PPE when handling the pump.
The use of safety gloves, safety shoes, safety glasses with closed sides and a leather apron is mandatory.
Before handling the product when it has already been installed, wash it thoroughly with running water and/or detergents.

1.6 Residual risks
The product has been designed and manufactured to ensure safe and reliable use.
However, as it is intended for use with liquids that are hazardous to health, installation and maintenance personnel must exercise extreme caution and always use PPE that complies with standards.
When working on the product, make sure that the pump cannot accidentally fall and do not underestimate the risk of burns, electrocution, drowning and suffocation or poisoning from inhaling toxic gases.
In particular, the user must ensure that no persons and/or animals come into contact with the liquid during operation.

Risk of death from electric current; electrical work must be carried out by a qualified electrician.

Risk of death or serious personal injury. Before handling the product when it has already been installed, wear protective gloves and wash it thoroughly with running water and/or detergents.

2. PRODUCT IDENTIFICATION

2.1 Description

The blueBOX lifting stations solve the problem of introducing wastewater or rainwater into the sewer system when the sewer system cannot be reached by gravity and whenever it is necessary to grind the solids contained in the effluent before discharging it into the sewer.
The blueBOX lifting station consists of a polyethylene tank in which a submersible vortex impeller pump or grinding system (to be purchased separately) must be installed. The blueBOX 500 model allows the use of 2 pumps.
The installation can be **fixed (FIX)**, using the connecting pipes (included), in which the pump is connected directly to the system, or with a **coupling device (DAC)** that allows the pump to be quickly separated from the system for cleaning and maintenance.
When the liquid in the tank reaches a level which sets the float switch or level sensor to the ON position, the pump starts, progressively emptying the tank.
The pump stops when the liquid reaches the minimum level and switches the float switch or level sensor to the OFF position.

In the case of an installation with 2 pumps, the level control system must be programmed in such a way that the second pump starts to assist the first pump in the event that the first pump is unable to empty the incoming effluent or if the first pump is blocked.
An emergency float, placed higher than the others, can be installed to signal an excessive liquid level in the tank.
In this case, an electrical control panel with a visual and/or audible alarm must be used.

Installation can be **indoors** (basements, cellars, sub-basements) or **outdoors** either **above** or **below** ground.
For outdoor use, it is mandatory to use pumps with a power supply cable with a minimum length of 10 m to ensure that the end of the cable cannot come into contact with moisture or water, in accordance with EN 60335-2-41.

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2.2 Intended use

The blueBOX can be installed for the collection and transfer of domestic and residential wastewater, rainwater and sewage.
It cannot be used in environments with the presence of dust, gases, acids, corrosive, flammable or explosive agents and with food-grade liquids.

The temperature of the installation site must be between 0°C (32°F) and +50°C (122°F).
The temperature of the contained liquid must not exceed 40°C (104°F) (up to 80°C/176°F for 3 min., the tank is therefore suitable for washing machine and dishwasher drains).

CAUTION! Do not use the product for purposes other than those for which it was designed and indicated in the manual. Improper use of the product may constitute a source of danger and invalidate the warranty.

2.3 Noise level

During operation, the lifting station has a sound pressure level of less than 70 dB(A).

2.4 Identification of the model

blueBOX 150 1 FIX NN TPVC 1 1/2” NN NN 0000
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① Product type

② Tank capacity (litres)

③ No. pumps envisaged

④ Configuration
FIX = fixed installation
DAC = installation with coupling device

⑤ Presence of ball check valve on the discharge pipe
NN = without check valve
VAP = with check valve

⑥ Discharge pipe material
TPVC = PVC
TX04 = Stainless steel AISI 304
TX16 = Stainless steel AISI 316

⑦ Discharge pipe diameter (in inches)

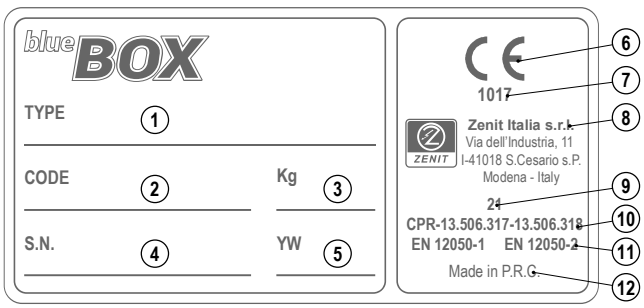
⑧ Presence of maximum level alarm float
NN = without alarm float
FA = with alarm float

⑨ Level sensor 4-20 mA
NN = Without sensor
FL = With sensor

⑩ Customer specific variant
0000 = No customer variant
XXXX = Customer variant

2.5 Nameplate

A nameplate is affixed to the tank cover indicating the main technical data relating to the product.
A silver adhesive label has been supplied together with this manual which shows the product characteristics indicated on the nameplate.
It is recommended that this label is affixed to a designated area inside the manual where it can be referred to in the event of any queries.



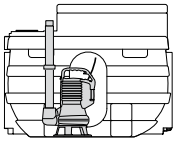
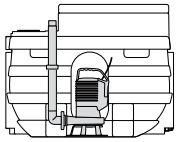
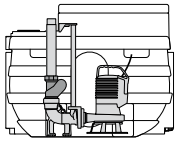
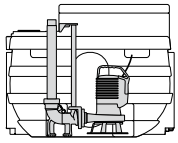
1. Type
2. Code
3. Weight (kg)
4. Serial number
5. Week and year of production
6. CE Marking
7. Identification number of the notified laboratory for type testing
8. Manufacturer’s name and address
9. Year in which the CE Marking was affixed for the first time
10. Declaration of performance reference no.
11. Reference standards
12. Production site

EN

2.6 Technical specifications

	blueBOX 60	blueBOX 90	blueBOX 150	blueBOX 250	blueBOX 500
Capacity (litres)	60	90	150	250	500
Dimensions (mm)	484x585 H 520	484x585 H 620	544X804 H 635	494x904 H 855 H1152 (with extension)	1004x904 H 855 H1152 (with extension)
No. pumps	1	1	1	1	1 - 2
Configuration	FIXED			FIXED - DAC	

2.7 Configurations

FIXED (blueBOX 60/90/150/250/500)	With coupling device (DAC) (blueBOX 250/500)
 	 
Possibility of installing vertical and horizontal discharge pumps	Possibility of installing horizontal discharge pumps
Discharge pipe in PVC Ø1½" - Ø2"	Coupler feet (DAC)
Discharge fitting in PVC Ø1½" - Ø2"	Ball check valve VAP (optional)
Elbow coupling in PVC for horizontal discharge model Ø1½"	Discharge pipe in PVC with connection Ø 2"
Discharge pipe in stainless steel (optional)	Discharge pipe in stainless steel with connection Ø 2"(optional)
Collar connection	Emergency emptying system
Fitting for emergency emptying	Maximum level alarm float
Maximum level alarm float (optional)	Vent valve with active carbon filter
Vent valve with active carbon filter	Level sensor 4-20 mA
Level sensor 4-20 mA (optional for blueBOX 60, 90 and 150 *standard* version, as standard for blueBOX 150 *full optional* version, 250 and 500)	

2.8 Recommended pumps (not included)

Model	Impeller type	P2 [KW]	Q max [l/sec]	H max [m]	Discharge pump	Ø discharge
DG bluePRO	Vortex in cast iron	0.37 - 1.5	5.1 - 12.6	7.0 - 15.3	G 1½" – G 2"	40/50
GR bluePRO	With grinding system	0.74 - 1.5	4.7 - 5.6	18.0 - 27.0	G 1½" DN32PN6	40/50

CAUTION! **The maximum inlet flow rate to the tank must be lower than the maximum flow rate of the selected pump.**

2.9 Recommended electrical control panels (not included)

Model	Description
Q1EL M 0.37-2.2 KW - 2-16A - AS/AV	Electronic control panel with self-learning for direct starting of single- and three-phase pumps, amperometric protection against dry run operation by cos φ and minimum current. For installation and use, please refer to the relative manual.
Q1EL T 0.55-7.5 KW - 2-15A - AS/AV	
Q2EL M 0.37-2.2 KW - 2-16A - AS/AV	
Q2EL T 0.55-7.5 KW - 2-15A - AS/AV	

3. TRANSPORT AND STORAGE

3.1 Preliminary checks
- Check that the packaging has not been damaged and is not upside down;
- Remove packaging materials and dispose of them in accordance with current regulations;
- Pay careful attention to ensure you do not injure yourself with sharp tools and no damage is caused to the product, especially electrical cables;
- Inspect the product for damaged or missing parts;
- If any items are missing, contact Zenit (or its distributor) or the transport company;
- Check that the data on the nameplate corresponds to those of the product ordered.

3.2 Handling and lifting
- Secure the product carefully to prevent it from falling, rolling or swinging;
- Use correctly dimensioned and certified lifting straps and systems;
- Do not drag the product on the ground;
- Do not place the product in contact with sharp or pointed objects;
- Place the product on a flat, level surface to prevent it from sinking or tipping over.

Risk of crushing, death or serious injury

Use lifting equipment appropriate to the weight of the lifting station stated on the nameplate.

CAUTION! Before lifting the product, observe local regulations regarding weight limits for objects which are handled manually, i.e. without the use of lifting equipment.

CAUTION! NEVER use electrical cables to handle the product.

CAUTION! When transporting and handling the product at low temperatures, take into account the reduced impact resistance of the lifting station

3.3 Storage
When storing the product, make sure that it is protected against moisture, heat sources and shocks.
Ensure that the ambient temperature is between -20°C (-4°F) and +50°C (122°F).

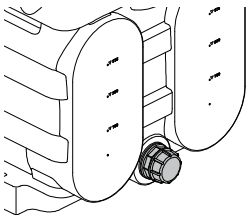
4. INSTALLATION

CAUTION! The instructions in this manual refer to standard installation types. In the event of a different installation, contact Zenit.

CAUTION! Before installation, carefully read and apply the safety instructions in the manual.

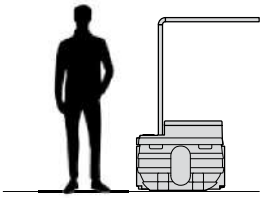
4.1 General warnings
- Always observe the local laws and regulations in force in the location where the lifting station is to be installed;
- The blueBOX lifting stations offer multiple possibilities for connecting inlet and outlet pipes. Pay careful attention to local laws that may require different installation methods (siphons, valves, etc.);
- The cover of the blueBOX can be walked on but can be driven over;
- When installing in a closed room, an effective air vent must be ensured as described in section "4.7 Air Vent Valve";
- The room where the blueBOX is installed must be provided with suitable air recirculation and a floor drainage system to collect any small leaks or condensation;
- For outdoor, non-burial installation, pay particular attention to the temperature range to which the tank is subjected;
- Protect the blueBOX from direct sunlight;
- Make sure that the mains voltage and frequency are compatible with the nameplate data of the pump(s);
- Make sure that the number of starts per hour of the installed pump(s) is within the limits indicated on the data sheet;
- Make sure that the level of the liquid inside the tank does not fall below the priming level as indicated in section 4.10.

4.2 Fitting for emptying in an emergency
The blueBOX lifting stations are designed to allow an emergency pump to be introduced through the large top opening to empty the tank in the event of a failure of the main pump.
It is, however, possible to use the bulkhead connector (supplied) to connect the lifting station to a drainage pipe via a ball valve or manual pump (optional).



Installation procedure (see Annex 1)
1. Unscrew the fastening screws of the cover and remove it.
2. With the tank empty, drill holes with a Ø50 hollow cutter in one of the prepared points.
3. Fit the bulkhead coupler supplied as standard.
4. Close the bulkhead coupler with the plug. It is possible to install a ball gate valve or a manual pump (optional).
5. After installation, clean the inside of the tank of any swarf or residue.

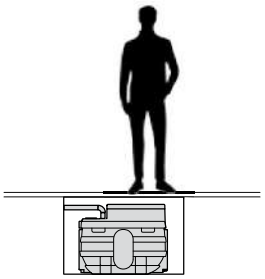
4.3 FLOOR installation *(see Annex 2)*



1. Ensure that the floor is level, smooth and suitable to support the weight of the full tank.
2. Position the lifting station so that there is sufficient space around it for maintenance work to be carried out.
3. Mark the position of the holes for the anchor screws. Use the designated slots present in the structure.
4. Drill holes in the floor at the marks.
5. Fix the tank to the floor using expansion plugs and appropriately sized screws.
   The tightening torque of the screws must be such that the tank is not deformed in any way. If necessary, use threadlocker or self-locking nuts to prevent screws from loosening.

In order to collect any leaks which may be caused by condensation or maintenance, make sure that the floor is equipped with a drain connected to the sewer system by means of suitable drainage systems.
If the blueBOX is installed in an enclosed space, ensure sufficient ventilation to prevent the possible formation of hazardous mixtures.

4.4 BURIED installation *(see Annex 2)*



1. Make sure that the ground does not contain ground water and is not subject to flooding.
2. The lifting station must not be placed directly on the ground: once the excavation work has been carried out created, a concrete slab at least twice the size of the base of the blueBOX must be prepared at the bottom.
3. Create side walls with adequate clearance around the tank for any maintenance work.
4. Correctly position the lifting station on the slab.
5. Mark the position of the holes for the anchor screws. Use the designated slots present in the structure.
6. Drill holes in the slab at the marks.
7. Fix the tank to the slab using expansion plugs and appropriately sized screws.
   The tightening torque of the screws must be such that the tank is not deformed in any way. If necessary, use threadlocker or self-locking nuts to prevent screws from loosening.
8. The cover of the blueBOX can be walked on but can be driven over. If necessary, an additional cover must be provided with a metal manhole cover fixed to a concrete structure so as not to encumber the tank.

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4.4.1 Extension

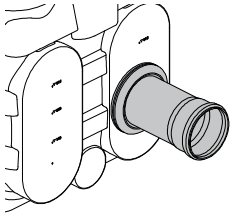
If an underground installation at a greater depth than standard is required, an optional extension element can be attached to the top opening of the blueBOX, which raises the height of the cover by approximately 300 mm.
In the case of installation with a coupling device (DAC), longer guide pipes must be used.
Finding and replacing guide pipes is the responsibility of the Customer.

Installation procedure (see Annex 3)

1. Unscrew the fastening screws of the cover and remove it.
2. Remove the spacer and the guide pipes.
3. Fasten the extension element in place of the cover. Use the screws supplied.
4. Refit the spacer using new, longer guide pipes.

CAUTION! The tank capacity remains the same as in the standard configuration. Do not change the position of the maximum level alarm float and the level sensor.

4.5 Inlet pipes



The blueBOX lifting stations have various inlet pipe arrangements.
The rubber gasket supplied ensures a perfect seal without the need for additional sealing products.

Installation procedure (see Annex 4)

1. Locate the most suitable inlet pipe position on the tank according to your installation.
2. Drill one or more holes in the tank using a drill fitted with a hollow cutter of the correct diameter according to the pipe used (Table 1):

Table 1	
Ø pipe (mm)	**Ø hollow cutter (mm)**
50	60
75	86
90	100
110	127

CAUTION! Before drilling the tank, carefully check the diameters of the pipes and gaskets.

2. Place the gasket in the relevant seat
3. Insert the inlet pipe into the gasket to a depth of approximately 4-5 cm
4. Then clean the inside of the tank of any swarf or residue

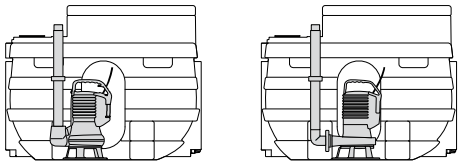
CAUTION! Anchor all pipes so that their weight does not bear on the lifting station.

4.6 Pump installation

Pump installation varies depending on the version chosen. The possible versions are either FIXED (pump connected directly to the discharge pipe) or with a DAC (coupling device)

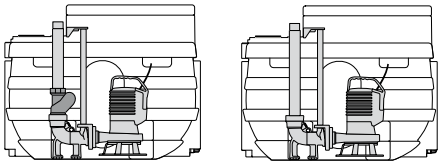
CAUTION! DO NOT use the power cable or float to lift the pump. Always use the top handle.

4.6.1 FIXED version
The pump is connected directly to the discharge pipe.



Installation procedure (see Annex 5)
1. Place the gasket in the relevant seat.
2. Insert the connecting pipe into the seal, from the inside of the tank to the outside. If necessary, lubricate the gasket to make it easier for the pipe to slide through.
3. Screw the discharge pipe to the discharge port of the pump. Use a straight pipe for vertical discharge pumps and an elbow pipe for horizontal discharge pumps. Apply Teflon or a similar product to the thread to ensure a seal.
4. Place the pump on the bottom of the tank. The ribs ensure perfect stability of the pump while it is in operation.
5. Couple the connecting pipe to the discharge pipe by tightening the collar connection.

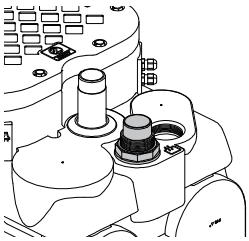
4.6.2 Version with coupling device (DAC) – only models 250 and 500
The pump is connected to the system via the coupling device, which facilitates pump removal of the pump in the event of maintenance work.
In addition, the coupling device, if it is equipped with a check valve, has a special valve that allows venting of air that may have formed during a period of prolonged inactivity, thereby ensuring priming of the pump.



Installation procedure (see Annex 6)
1. Attach the sliding flange to the pump discharge port the with screws.
2. Lower the pump into the tank by running it along the guide pipes and attach it to the coupling device

CAUTION! The connection between the discharge pipe and the system must be made in a workmanlike manner so as to ensure no leakage even when subjected to the pressure exerted by the pump and the water column.

4.7 Vent valve
The purpose of the vent valve is to prevent the formation of explosive or toxic mixtures inside the tank.
It also serves to prevent overpressure due to liquid entry and the vacuum generated during pumping.
The vent valve is equipped with an activated carbon filter.
It is possible to remove the filter and attach a 50mm (2") inner diameter vent pipe to the valve;
Do not use smaller diameter pipes to avoid system noise and ensure proper operation.
The other end should terminate in the open at a suitable height and with a flame arrester filter.
Make sure that the vent pipe is perfectly sealed.



CAUTION! Use of the vent pipe must still be evaluated depending on the installation. Any local regulations may require the use of a different diameter vent pipe.

4.8 Float switches
Float switches allow the pump to start and stop automatically according to the level of the liquid inside the tank.
The intervention level of the installed pump must be set between the minimum and maximum levels allowed:
- Minimum level: to ensure priming of the installed pumps, i.e., complete immersion of the pump body.
- Maximum level: always below the alarm level.

Different solutions are possible depending on the model:

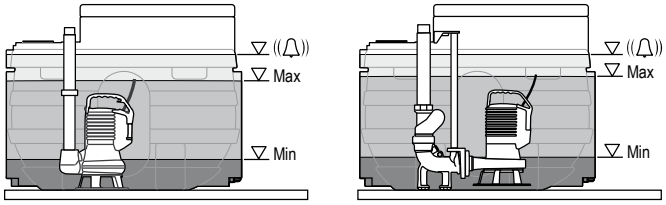
- **blueBOX 60-90-150 *standard* version:** Use a pump (to be purchased separately) equipped with a float switch.

- **blueBOX 150 *full optional* version:** The lifting station is equipped, as standard, with a 4-20 mA level sensor already mounted inside the tank, to be connected to the electrical control panel provided. In this case, a pump without a float switch must be used.

- **blueBOX 250- 500:** The lifting station is equipped, as standard, with a 4-20 mA level sensor already mounted inside the tank, to be connected to the electrical control panel provided. In this case, a pump without a float switch must be used.

CAUTION! The minimum level of the liquid must never fall below the threshold shown in the figure, regardless of the number of pumps installed.

CAUTION! Any change in the position of the floats changes the way the levels are managed inside the tank.
Zenit is not liable for malfunctions or damage to persons or property if the original position of the floats is changed.



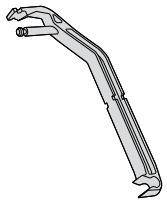
EN

EN

4.9 Check valve
It is recommended that a check valve is installed on the discharge pipe connected to the sewer system to prevent backflow of the water column into the lifting station.
Some versions of blueBox are equipped with a check valve installed directly on the coupling device.
If the model purchased is not fitted with a check valve, it is recommended that an external ball-type check valve is installed.

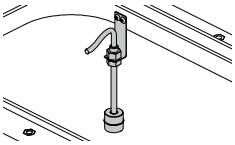
4.10 Shut-off valve
A shut-off valve must be installed on the discharge pipe to secure maintenance operations to ensure safety during maintenance operations.
It is recommended that a shut-off valve is also installed on the inlet pipe.
Gate valves or ball valves can be used for this purpose.

4.11 Float stroke limiter (for Zenit pumps, blue series)
A special accessory allows the stroke amplitude of the float switch to be changed if the pump start level is too close to the alarm level.

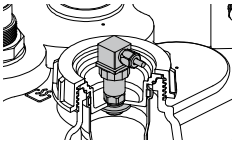


Installation procedure (see Annex 7)
1. Pull the float switch cable out of the eyelet cable tie on the handle.
2. Introduce the stroke limiter into the eyelet cable tie of the handle.
3. Lock the float cable in the eyelet cable tie of the stroke limiter. Leave about 100 mm of free cable required for operation.
4. Secure the stroke limiter to the handle using the cable tie provided.
5. Secure the float cable to the stroke limiter using a cable tie placed in the slots provided.

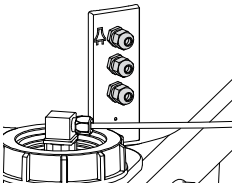
4.12 Maximum level alarm float
The maximum level alarm float indicates if the level of the liquid is too high inside the tank as a result of pump failure or if there is an excessive amount of effluent entering the tank.
The maximum level float is optional for blueBOX 60, 90, 150 *standard* and is supplied as standard for 150 *full optional*, 250 and 500 models.
It must be connected to an electrical control panel set up with an audible and/or visual alarm.



4.13 Level sensor 4-20 mA
An optional level sensor with a standard 4-20 mA output can be used for starting and stopping the pump instead of a mechanical float switch.
The level sensor must be connected to a pre-arranged electrical control panel.
It is recommended that an electrical control panel equipped with a backup battery is used in order to ensure proper operation of the level sensor even in the event of a power failure.



4.14 Cable glands
The blueBOX allows the application of 4 cable glands for models 60, 90, 150 and 250 and up to 8 cable glands for model 500 for the electrical cables from the lifting station.



Installation procedure (see Annex 8)
1. Drill a hole in the tank at the pre-arranged point for the installation of the cable gland with a suitable size drill bit according to the diameter of the cable gland.
2. Correctly place the cable gland in the hole and secure it with the nut.
3. Insert the gasket into the cable gland and screw on the ring nut without tightening it.
4. Once the cable exits on the outside, tighten the ring nut to secure the cable.

4.15 Electrical connection
Electrical connections must be made by qualified personnel.
Power outlets or the electrical control panel (where applicable) should be located in a dry place, at a safe height in case of flooding.
For the electrical connection of pumps and electrical control panels, follow the instructions in the relevant manuals.

CAUTION! If a three-phase pump is installed, the direction of rotation of the impeller should be checked before final installation, following the procedure indicated in the pump manual.

5. COMMISSIONING

5.1 Testing
After the hydraulic and electrical connections have been made, proceed with a system test.
During this step, leave the tank cover partially open to allow levels to be checked.
Fill the lifting station with clean water then check for leaks and check the correct operation of the pump.
For optimal level settings, it is recommended that the discharge gate valve is closed by 3/4.
Check that the emptying operation is carried out correctly at the maximum flow rate of incoming liquid.

CAUTION! Make sure the pump inside the blueBOX is primed. In some cases, an air bubble may form inside the pump casing, preventing proper pumping of the liquid.

5.2 First start-up
Check that the setting of the pump start and stop levels is correct by simulating a few work cycles with clean water.
Once correct operation has been verified, close the cover with the screws.

6. MAINTENANCE

6.1 Ordinary maintenance
BlueBOX lifting stations are designed and built with high-quality materials to ensure high reliability.
However, periodic cleaning and maintenance are recommended in order to ensure that performance remains consistent over time.
Any work should be carried out by qualified personnel (for example, from the installer's Service Department) in accordance with applicable regulations.

To ensure efficient operation of the product, carry out a verification every:
- quarterly for installation in industrial facilities;
- every six months for installation in multi-family houses;
- annually for installation in single-family houses.

System checks should verify the following:
- absence of deposits at the bottom of the tank;
- absence of any leaks;
- the float switch, if present, can move freely.
- the pump is in the correct position.

Carefully read the operation and maintenance manuals for the pump and electrical control panel to check the frequency and type of periodic maintenance work required.
After maintenance work is completed, carry out an operation test.

6.2 Safety warnings
When working on the lifting station:
- Disconnect the pump from the power supply and make sure it cannot start-up accidentally. To disconnect the three-phase pump, first disconnect the phase conductors then the yellow-green ground conductor.
- Hydraulically isolate the tank (close the inlet and outlet pipe gates).
- Since biological tanks may contain poisonous GASES, ENSURE CORRECT air circulation before starting work.
- Do not immerse your hands or body parts inside the tank and do not touch the discharge pipe if it is metal, without having first disconnected the electrical power supply to the pump.
- To avoid burns, wait until the pump surface, if previously used, has cooled.
- Wash the pump thoroughly with water or specific detergents.
- DO NOT approach and/or introduce hands or objects into the suction or discharge port of the pump.
- If in doubt, consult the manufacturer before proceeding with any repair or replacement operation.

6.3 Removing the pump from the blueBOX

CAUTION! DO NOT use the power cable or float to lift the pump. Always use the top handle.

FIXED version *(see Annex 9)*
- Unscrew the fastening screws of the cover and remove it;
- Unscrew the cable gland ring nut and remove the power cable;
- Open the collar connection to separate the pump from the system;
- Lift the pump using the top handle and remove it from the tank.

Version with coupling device *(see Annex 10)*
- Unscrew the fastening screws of the cover and remove it;
- Unscrew the cable gland ring nut and remove the power cable;
- Lift the pump using the top handle and remove it from the tank.

6.4 Replacement parts
When repairing or replacing parts, only use genuine replacement parts.
Use of non-original replacement parts may result in personal injury or damage to property and will invalidate the warranty.
When requesting replacement parts, always specify the serial number and the exact product designation indicated on the nameplate.

7. INACTIVITY, DECOMMISSIONING AND DISPOSAL

7.1 Safety warnings

- Do not touch parts connected to the mains power networks: danger of serious or fatal injury.
- Do not touch wastewater contained in the lifting station.
- Pay careful attention to worn or damaged parts that may have sharp edges.

7.2 Inactivity

- Disconnect the electrical control panel from the power supply.
- Clean the power cables.
- Empty the tank and dispose of the wastewater.
- Cover the tank, electrical control panel and accessories to protect them from moisture and direct sunlight.

EN

7.3 Decommissioning

- Disconnect the electrical control panel from the power supply.
- Disconnect the cables from the electrical control panel.
- Clean the power cables.
- Empty the tank and dispose of the wastewater.
- Remove the pump, wash it and store it in its packaging in a suitable place following the instructions in the relevant manual.
- Disassemble the system connection elements.

7.4 Disposal

The lifting station is made of materials that can be recycled.
Dispose of the product properly by separating the various components and directing them to separate waste collection centres.
Use a public or private waste disposal service in accordance with current local regulations.

The crossed-out wheelie bin symbol on the equipment or its packaging indicates that the product at the end of its useful life should be collected separately and not disposed of with other mixed municipal waste.
Adequate separate waste collection for the decommissioned equipment to then be sent for recycling, treatment, and disposal helps to avoid possible negative effects on the environment and health and facilitates the reuse and/or recycling of the materials of which the equipment is made. Improper disposal of the product by the user will result in administrative sanctions provided for by current regulations.

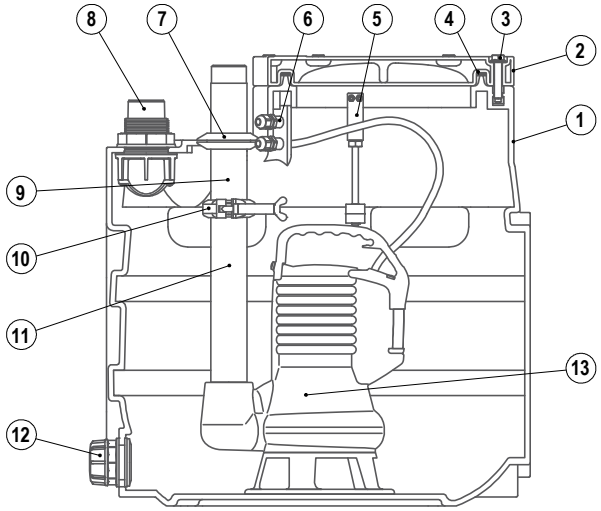
8. TROUBLESHOOTING

Problem	Possible cause	Solution
The pump operates but the flow rate is insufficient or not present at all	The pump is not primed	Contact a specialised technician to prime the pump
	The impeller rotates in the wrong direction	Check the direction of rotation of the impeller following the instructions provided in the pump manual
When the toilet is flushed, I can see air bubbles rising from the toilet	The vent pipe is missing or is insufficient	Install a vent pipe or check the condition of the existing one
The level in the toilet drops while the pumps are running	The vent pipe is missing or is insufficient	Install a vent pipe or check the condition of the existing one
Leaks occur at the inlet/outlet of the pipes	Incorrect installation of the gasket	Identify the leak, check gasket installation and replace if necessary
Once buried, the tank sinks or moves	There is no slab beneath the tank or the ground is not firm	Remove the tank and restore the correct installation conditions
The system is noisy and vibrating	Pipes are not secured to walls or the pump is unbalanced by a foreign body	Secure pipes to the walls with anti-vibration joints and check that the pump is not obstructed by any solid matter
	Pump is operating in a cavitation conditions	Check that the pump is not working outside the characteristic curve

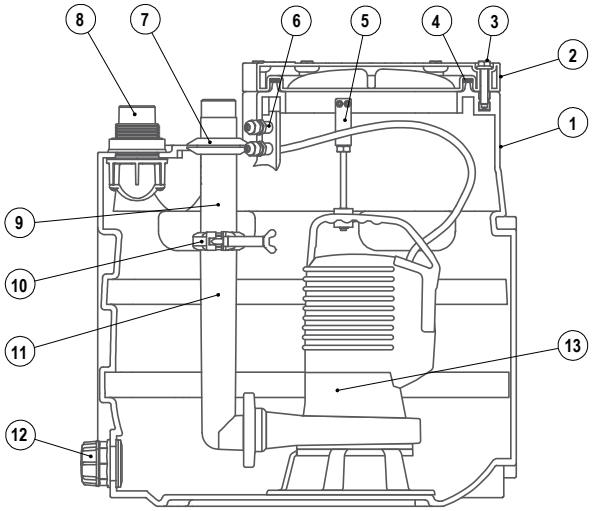
IT **COMPONENTI PRINCIPALI**
EN **MAIN COMPONENTS**
FR **PRINCIPAUX COMPOSANTS**

DE **THAUPTKOMPONENTEN**
ES **COMPONENTES PRINCIPALES**
RU **ОСНОВНЫЕ КОМПОНЕНТЫ**

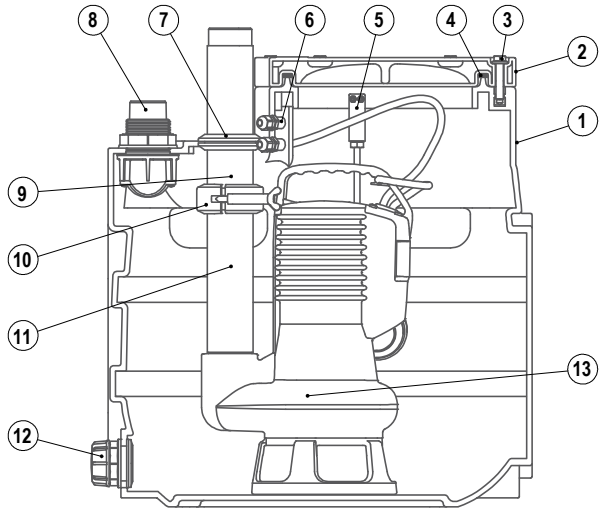
FIXED G40V



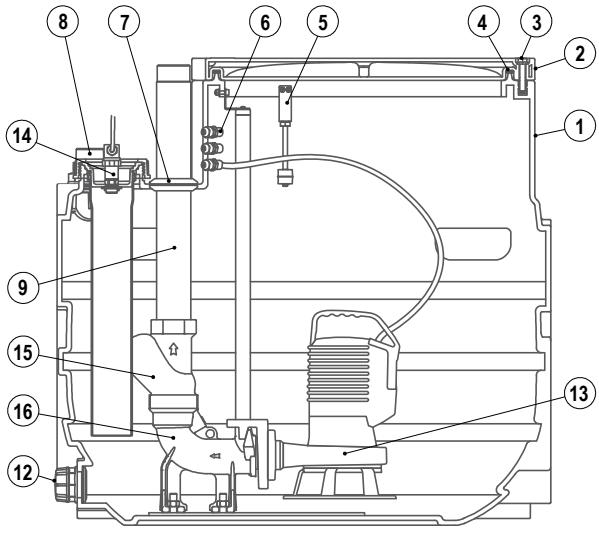
FIXED G40H



FIXED G50V



DAC G40H



IT

1. Serbatoio blueBOX
2. Coperchio
3. Viti fissaggio coperchio
4. Guarnizione
5. Galleggiante allarme massimo livello
6. Pressacavi
7. Guarnizione tubo di mandata
8. Valvola di sfiato
9. Tubo di mandata
10. Giunto a collare
11. Raccordo di mandata
12. Raccordo svuotamento di emergenza
13. Pompa
14. Sensore di livello
15. Valvola a palla
16. Dispositivo di accoppiamento

EN

1. blueBOX tank
2. Cover
3. Cover fastening screws
4. Gasket
5. Maximum level alarm float
6. Cable glands
7. Discharge pipe gasket
8. Vent valve
9. Discharge pipe
10. Collar connection
11. Discharge fitting
12. Fitting for emergency emptying
13. Pump
14. Level sensor
15. Ball valve
16. Coupling device

FR

1. Réservoir blueBOX
2. Couvercle
3. Vis de fixation du couvercle
4. Joint
5. Flotteur d'alarme de trop-plein
6. Presse-étoupe
7. Joint de tuyau de refoulement
8. Clapet de décharge
9. Tuyau de refoulement
10. Joint à collier
11. Raccord de refoulement
12. Raccord vidange d'urgence
13. Pompe
14. Capteur de niveau
15. Clapet à boule
16. Dispositif d'accouplement

DE

1. Tank blueBOX
2. Deckel
3. Befestigungsschraube Deckel
4. Dichtung
5. Schwimmer Höchststandalarm
6. Kabelverschraubung
7. Dichtung Druckleitung
8. Entlüftungsventil
9. Druckleitung
10. Schließring
11. Anschluss Druckleitung
12. Anschluss Notentleerung
13. Pumpe
14. Füllstandsensor
15. Kugelventil
16. Kopplungseinrichtung

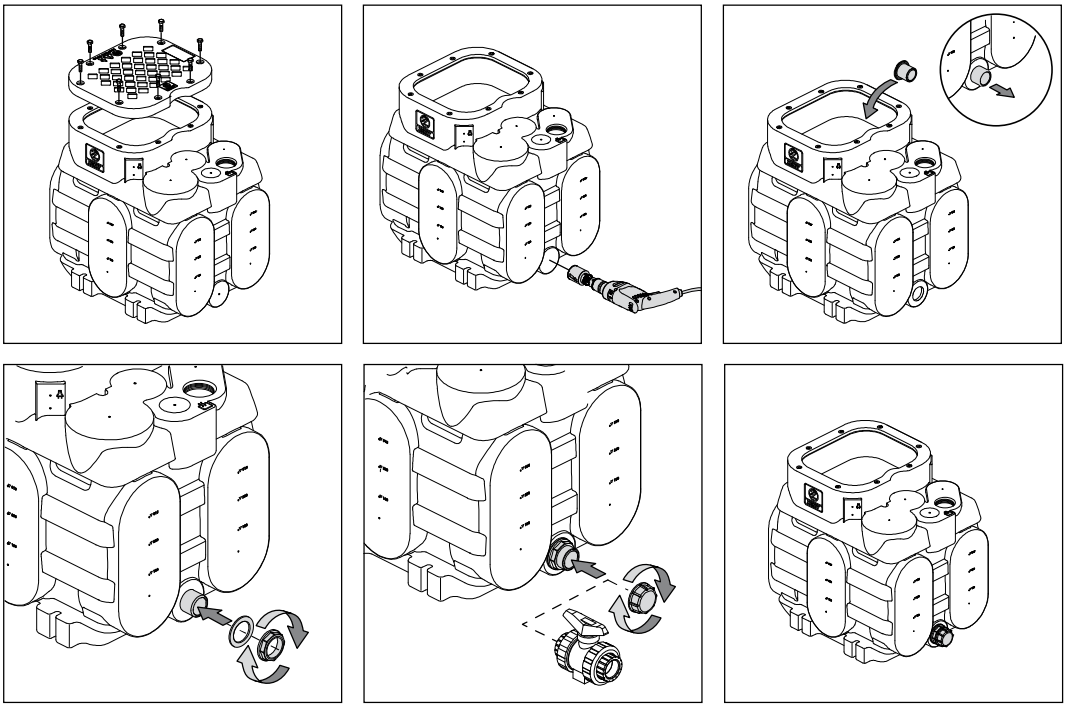
ES

1. Depósito blueBOX
2. Tapa
3. Tornillos de fijación de la tapa
4. Junta
5. Flotador de alarma de nivel máximo
6. Prensacables
7. Junta del tubo de impulsión
8. Válvula de purga
9. Tubo de impulsión
10. Collarín
11. Racor de impulsión
12. Racor para vaciado de emergencia
13. Bomba
14. Sensor de nivel
15. Válvula de bola
16. Dispositivo de acoplamiento

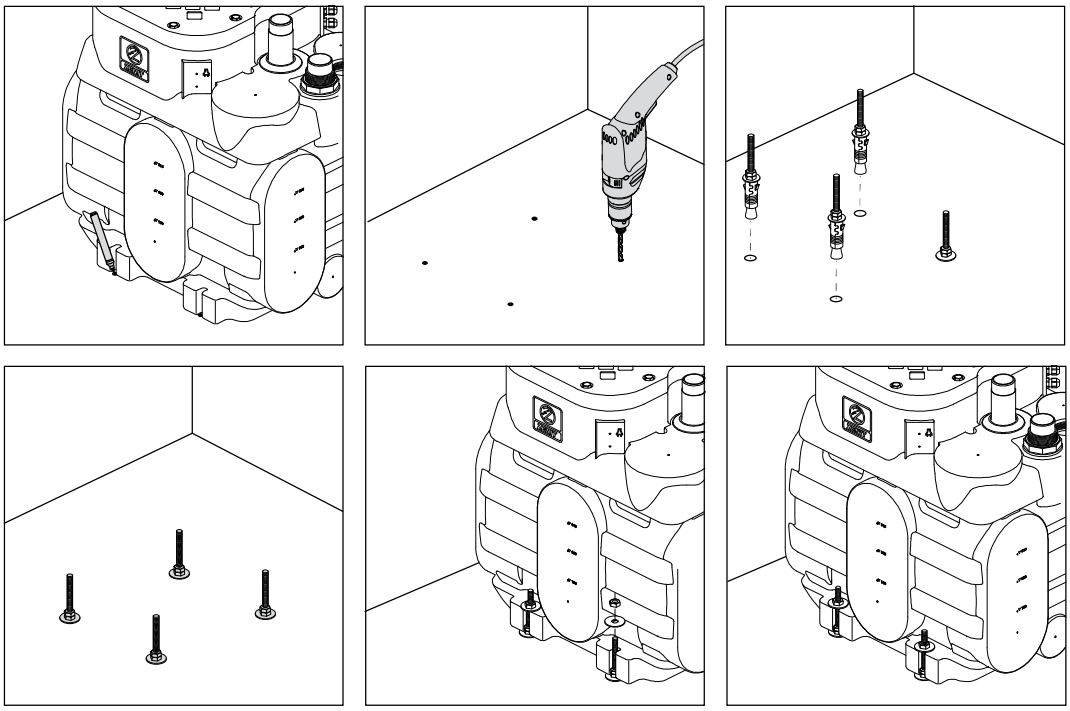
RU

1. Резервуар blueBOX
2. Крышка
3. Фиксирующие винты крышки
4. Прокладка
5. Поплавок сигнализации максимального уровня
6. Кабельные муфты
7. Прокладка напорной трубы
8. Вентиляционный клапан
9. Напорная труба
10. Соединительная муфта
11. Патрубок подачи
12. Патрубок аварийного опорожнения
13. Насос
14. Датчик уровня
15. Шаровой клапан
16. Соединительное устройство

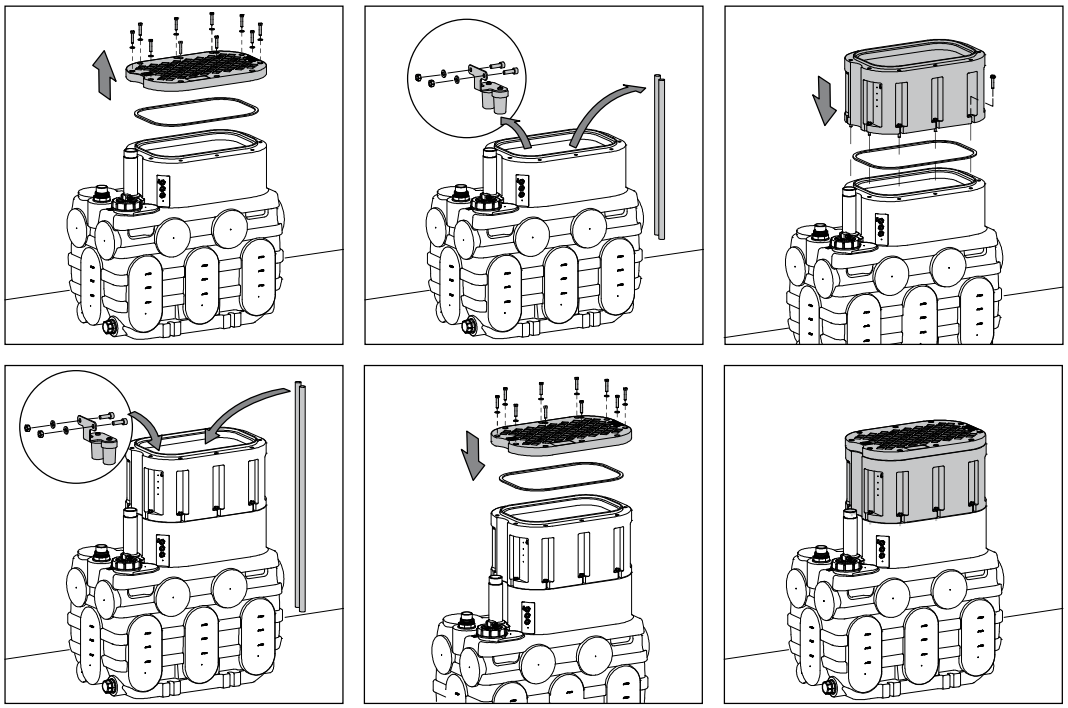
IT	**APPENDICE 1: Procedura per installazione RACCORDO PER SVUOTAMENTO DI EMERGENZA**
EN	**ANNEX 1: Procedure for installing the FITTING FOR EMPTYING IN AN EMERGENCY**
FR	**ANNEXE 1 : Procédure d'installation du RACCORD DE VIDANGE D'URGENCE**
DE	**ANHANG 1: Installationsverfahren ANSCHLUSS FÜR NOTENTLEERUNG**
ES	**APÉNDICE 1: Procedimiento para la instalación de la CONEXIÓN PARA EL VACIADO DE EMERGENCIA**
RU	**ПРИЛОЖЕНИЕ 1: Процедура установки ПАТРУБКА ДЛЯ АВАРИЙНОГО ОПОРОЖНЕНИЯ**



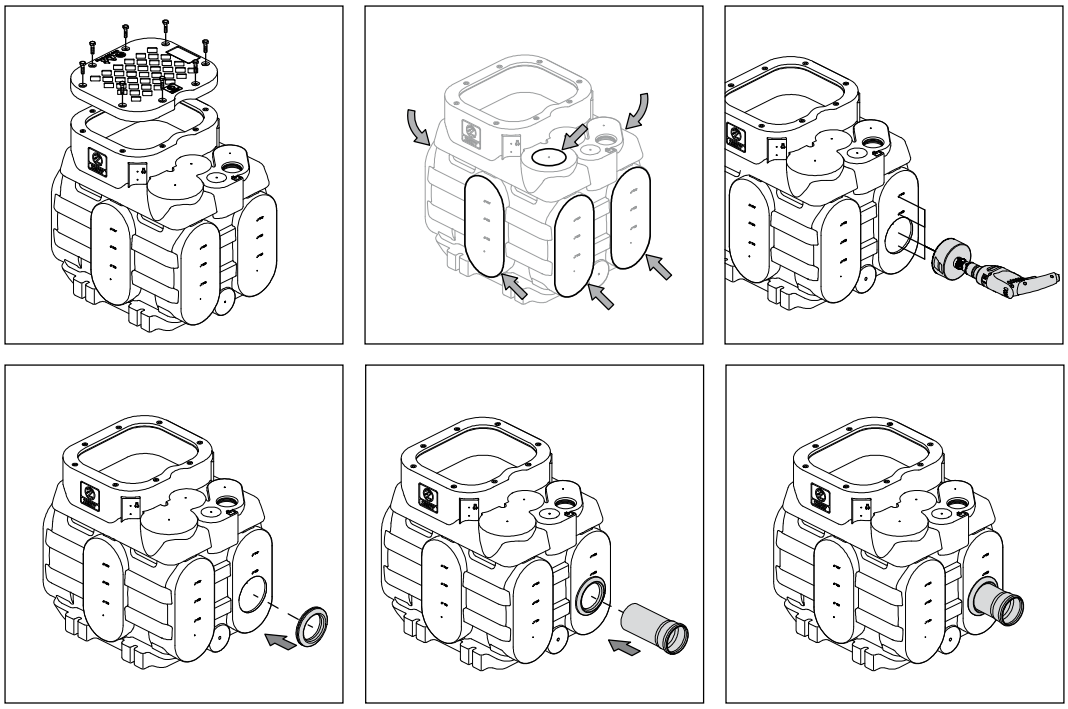
IT	**APPENDICE 2: Procedura per installazione A PAVIMENTO/SU SOLETTA IN CEMENTO**
EN	**ANNEX 2: Procedure for FLOOR/ON CEMENT SLAB installation**
FR	**ANNEXE 2 : Procédure d'installation AU SOL/SUR DALLE EN BÉTON**
DE	**ANHANG 2: Installationsverfahren AM BODEN/AUF BETONDECKE**
ES	**APÉNDICE 2: Procedimiento para la instalación EN SUELO/LOSA DE CEMENTO**
RU	**ПРИЛОЖЕНИЕ 2: Процедура установки НА ПОЛ / НА БЕТОННУЮ ПЛИТУ**



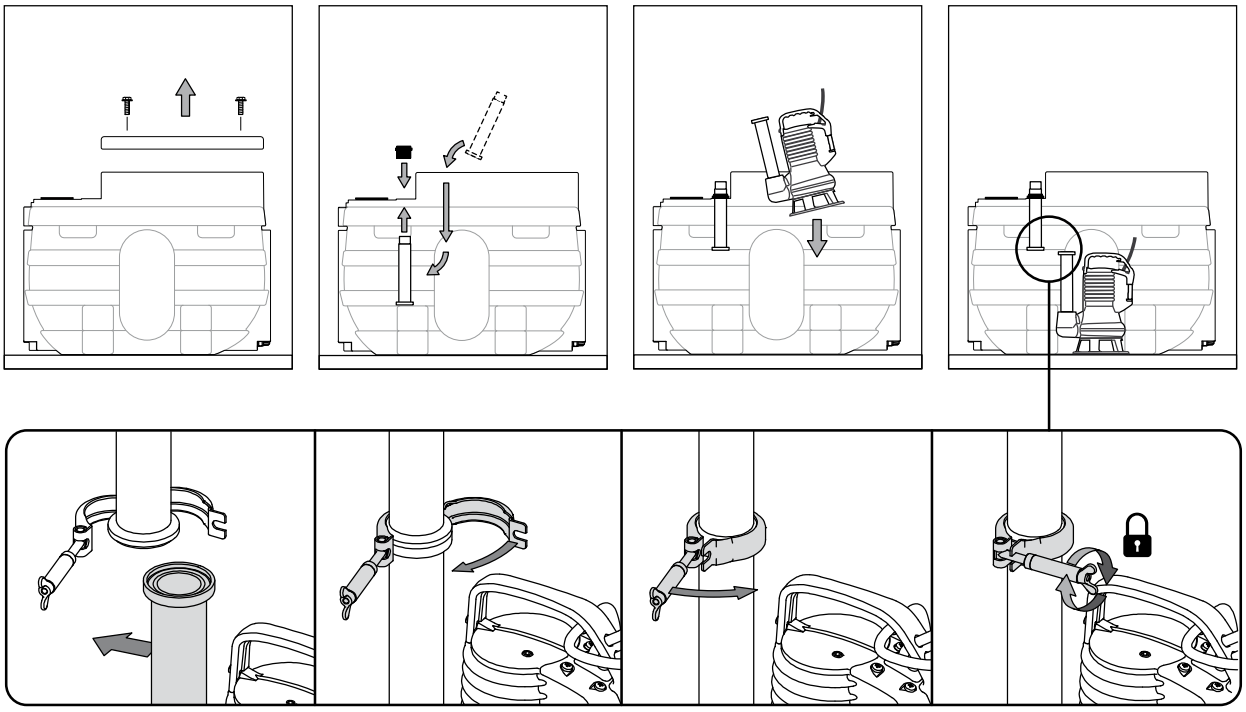
IT	**APPENDICE 3: Procedura per installazione dell'elemento di estensione**
EN	**ANNEX 3: Procedure for installing the extension element**
FR	**ANNEXE 3 : Procédure d'installation de l'élément d'extension**
DE	**ANHANG 3: Installationsverfahren des Verlängerungselements**
ES	**APÉNDICE 3: Procedimiento para la instalación del elemento de extensión**
RU	**ПРИЛОЖЕНИЕ 3: Процедура установки удлинительного элемента**



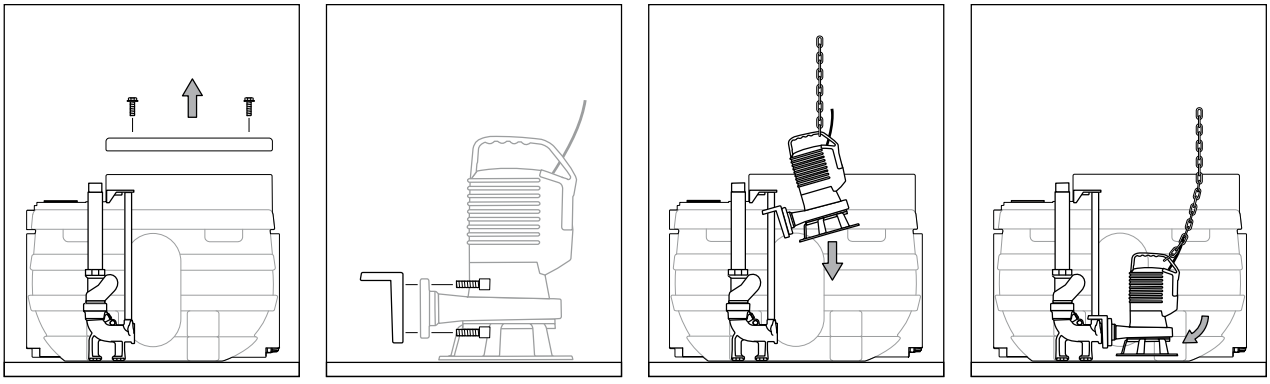
IT	**APPENDICE 4: Procedura per installazione TUBAZIONE DI INGRESSO**
EN	**ANNEX 4: Procedure for INLET PIPE installation**
FR	**ANNEXE 4 : Procédure d'installation de la CONDUITE D'ENTRÉE**
DE	**ANHANG 4: Installationsverfahren EINLAUFLEITUNG**
ES	**APÉNDICE 4: Procedimiento para la instalación de la TUBERÍA DE ENTRADA**
RU	**ПРИЛОЖЕНИЕ 4: Процедура установки ВХОДНОЙ ТРУБЫ**



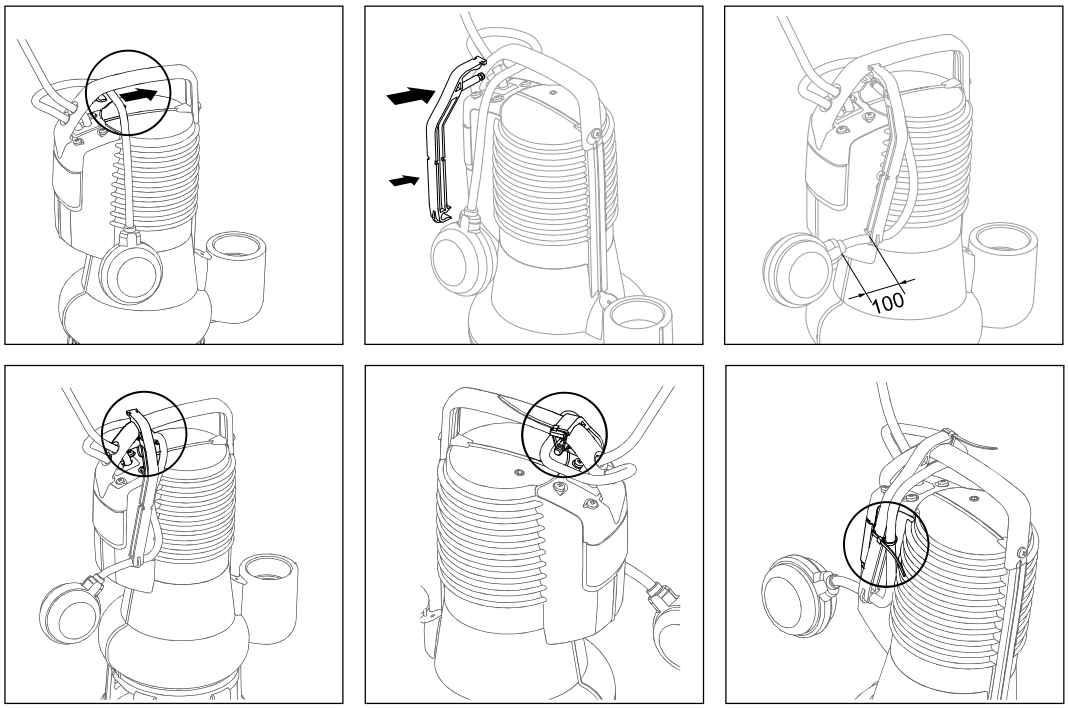
IT	**APPENDICE 5: Procedura per installazione POMPA (versione FIXED)**
EN	**ANNEX 5: Procedure for PUMP installation (FIXED version)**
FR	**ANNEXE 5 : Procédure d'installation de la POMPE (version FIXE)**
DE	**ANHANG 5: Installationsverfahren PUMPE (Version FIXED)**
ES	**APÉNDICE 5: Procedimiento para la instalación de la BOMBA (versión FIXED)**
RU	**ПРИЛОЖЕНИЕ 5: Процедура установки НАСОСА (версия FIXED)**



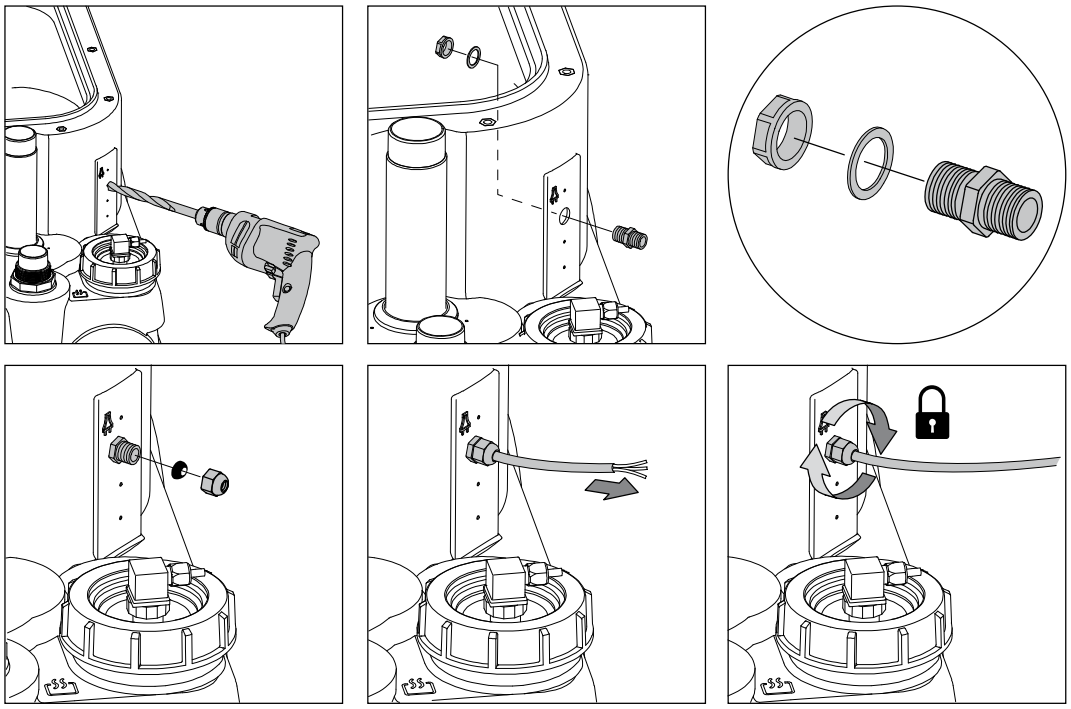
IT	**APPENDICE 6: Procedura per installazione POMPA (versione CON DISPOSITIVO DI ACCOPPIAMENTO)**
EN	**ANNEX 6: Procedure for PUMP installation (version WITH COUPLING DEVICE)**
FR	**ANNEXE 6 : Procédure d'installation de la POMPE (version AVEC DISPOSITIF D'ACCOUPLEMENT)**
DE	**ANHANG 6: Installationsverfahren PUMPE (Version mit KOPPLUNGSEINRICHTUNG)**
ES	**APÉNDICE 6: Procedimiento para la instalación de la BOMBA (versión CON DISPOSITIVO DE ACOPLAMIENTO)**
RU	**ПРИЛОЖЕНИЕ 6: Процедура установки НАСОСА (версия С СОЕДИНИТЕЛЬНЫМ УСТРОЙСТВОМ)**



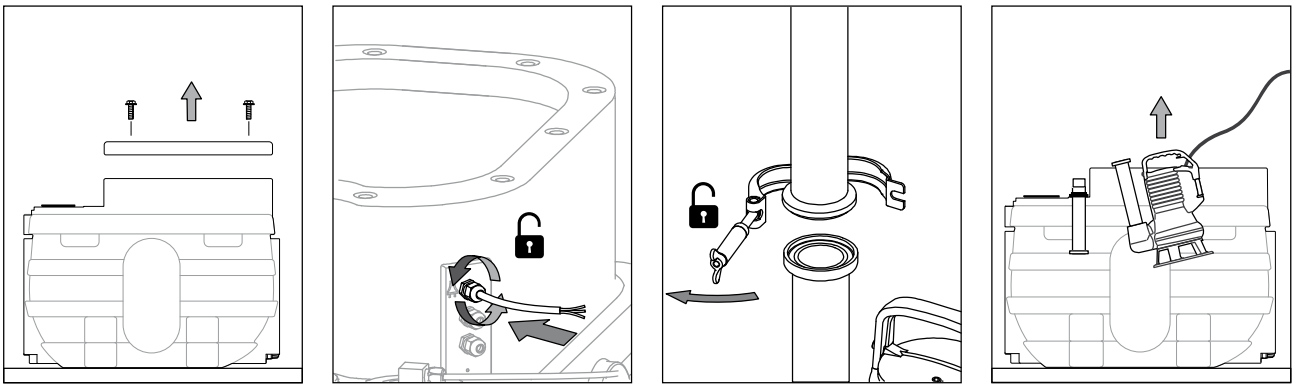
IT	**APPENDICE 7: Procedura per installazione LIMITATORE DI CORSA DEL GALLEGGIANTE**
EN	**ANNEX 7: Procedure for FLOAT STROKE LIMITER installation**
FR	**ANNEXE 7 : Procédure d'installation de la BUTÉE DU FLOTTEUR**
DE	**ANHANG 7: Installationsverfahren SCHWIMMERHUBBEGRENZER**
ES	**APÉNDICE 7: Procedimiento para la instalación del LIMITADOR DE RECORRIDO DEL FLOTADOR**
RU	**ПРИЛОЖЕНИЕ 7: Процедура установки ОГРАНИЧИТЕЛЯ ХОДА ПОПЛАВКА**



IT	**APPENDICE 8: Procedura per installazione PRESSACAVI**
EN	**ANNEX 8: Procedure for CABLE GLANDS installation**
FR	**ANNEXE 8 : Procédure d'installation du PRESSE-ÉTOUPE**
DE	**ANHANG 8: Installationsverfahren KABELVERSCHRAUBUNGEN**
ES	**APÉNDICE 8: Procedimiento para la instalación del PRENSACABLES**
RU	**ПРИЛОЖЕНИЕ 8: Процедура установки КАБЕЛЬНЫХ МУФТ**



IT	**APPENDICE 9: Procedura di estrazione della pompa dal blueBOX (versione FIXED)**
EN	**ANNEX 9: Procedure for extracting the pump from the blueBOX (FIXED version)**
FR	**ANNEXE 9 : Procédure de démontage de la pompe de blueBOX (version FIXE)**
DE	**ANHANG 9: Verfahren zum Ausbau der Pumpe aus blueBOX (Version FIXED)**
ES	**APÉNDICE 9: Procedimiento para la extracción de la bomba del blueBOX (versión FIXED)**
RU	**ПРИЛОЖЕНИЕ 9: Процедура извлечения насоса из blueBOX (версия FIXED)**



IT	**APPENDICE 10: Procedura di estrazione della pompa dal blueBOX (versione con dispositivo di accoppiamento)**
EN	**ANNEX 10: Procedure for extracting the pump from the blueBOX (version with coupling device)**
FR	**ANNEXE 10 : Procédure de démontage de la pompe de blueBOX (version avec dispositif d'accouplement)**
DE	**ANHANG 10: Verfahren zum Ausbau der Pumpe aus blueBOX (Version mit Kopplungseinrichtung)**
ES	**APÉNDICE 10: Procedimiento para la extracción de la bomba del blueBOX (versión con dispositivo de acoplamiento)**
RU	**ПРИЛОЖЕНИЕ 10: Процедура извлечения насоса из blueBOX (версия с соединительным устройством)**