

**9011**

08.2024

# Sanicubic SC



**FR** Notice de service/montage  
**EN** Operating/installation manual  
**DE** Bedienungs-/Installationsanleitung  
**IT** Manuale per l'uso e l'installazione  
**NL** Gebruikers-/installatiehandleiding  
**ES** Manual de instalación e uso  
**PT** Manual de instalação/utilização

**CS** Návod k instalaci a obsluze  
**PL** Instrukcja obsługi/montażu  
**RU** Руководство по эксплуатации и установке  
**SV** Monterings- och driftinstruktioner  
**NO** Installasjons- og driftsinstruksjon  
**VI** Hướng dẫn cài đặt và sử dụng  
**HI** स्थापना और संचालन पुस्तिका





## FR AVERTISSEMENT

Cet appareil peut être utilisé par des enfants âgés d'au moins 8 ans et par des personnes ayant des capacités physiques sensorielles ou mentales réduites ou dénuées d'expérience ou de connaissance, s'ils (si elles) sont correctement surveillé(e)s ou si des instructions relatives à l'utilisation de l'appareil en toute sécurité leur ont été données et si les risques encourus ont été appréhendés. Les enfants ne doivent pas jouer avec l'appareil. Le nettoyage et l'entretien par l'utilisateur ne doivent pas être effectués par des enfants sans surveillance.

## RACCORDEMENT ELECTRIQUE

L'installation électrique doit être réalisée par un professionnel qualifié en électrotechnique.

Le circuit d'alimentation de l'appareil doit être relié à la terre (classe I) et protégé par un disjoncteur différentiel haute sensibilité (30 mA).

Le raccordement doit servir exclusivement à l'alimentation de l'appareil.

Si le câble d'alimentation est endommagé, il doit être remplacé par le fabricant, son service après-vente ou des personnes de qualification similaire afin d'éviter un danger.

L'appareil doit être placé de façon telle que la fiche de prise de courant soit accessible. Les appareils sans prises doivent être connectés à un interrupteur principal sur l'alimentation électrique qui assure la déconnexion de tous les pôles (distance de séparation des contacts de 3 mm minimum). Réglementation : veillez à respecter les dispositions de la norme en vigueur dans le pays d'utilisation.

**Débrancher électriquement l'appareil avant toute intervention !**

## EN WARNING

This device may be used by children who are at least 8 years old, by people with reduced physical, sensory or mental capacities or those without knowledge or experience, if they are properly supervised and if the instructions relating to using the device completely safely have been given to them and the associated risks have

been understood. Children must not play with the device. Cleaning and maintenance undertaken by the user must not be carried out by unsupervised children.

## ELECTRICAL CONNECTION

The electrical installation must be done by a qualified electrical engineer.

The device's power supply must be connected to ground (class I) and protected by a high sensitivity differential circuit breaker (30 mA).

The connection must be used exclusively to provide the power to the product.

If the power cord is damaged, to prevent possible danger, it must be replaced by the manufacturer, customer service team or a similarly qualified individual.

The device must be placed so that the power supply socket is accessible. Devices without plugs must be connected to a main switch on the power supply which disconnects all poles (contact separation distance of at least 3 mm).

The unit must be connected in accordance with the rules and standards in force.

**Disconnect electrical power before working on the unit !**

## DE WARNING

Dieses Gerät kann von Kindern ab 8 Jahren und darüber sowie von Personen mit verringerten physischen, sensorischen oder mentalen Fähigkeiten oder Mangel an Erfahrung und Wissen benutzt werden, wenn sie beaufsichtigt oder bezüglich des sicheren Gebrauchs des Gerätes unterwiesen wurden und die daraus resultierenden Gefahren verstehen. Kinder dürfen nicht mit dem Gerät spielen. Reinigung und Benutzerwartung dürfen nicht von Kindern ohne Beaufsichtigung durchgeführt werden.

## ELEKTROANSCHLUSS

Der elektrische Montage muss von einem Elektroniker durchgeführt werden.

Die Versorgungsleitung des Geräts muss geerdet (Klasse I) und durch einen Fehlerstromschutzschalter (FI) (30 mA) geschützt sein.

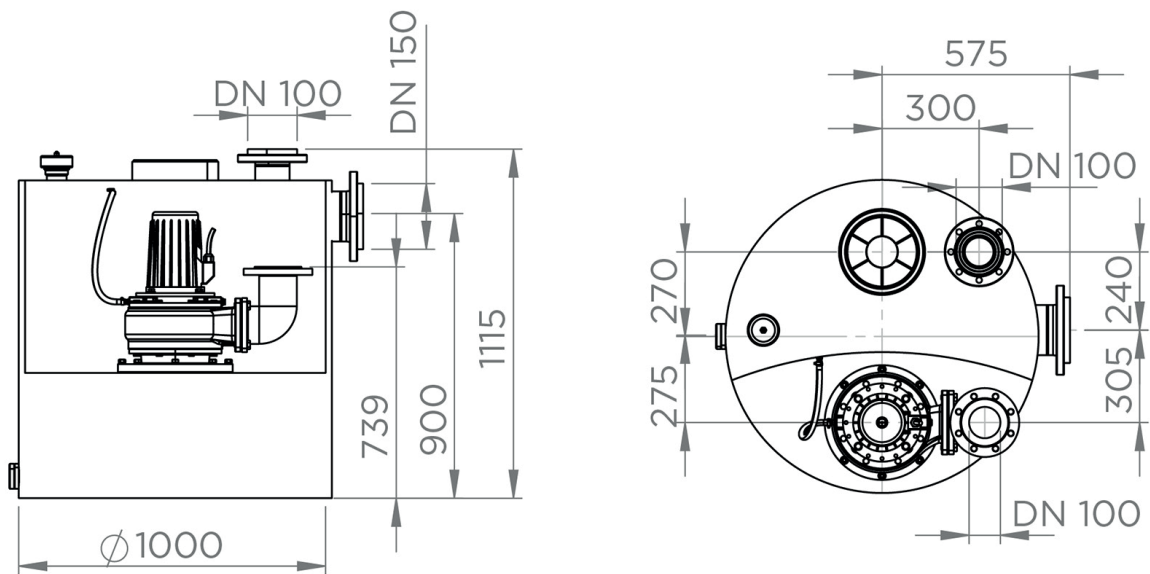
Der Anschluss darf ausschließlich der Stromzufuhr dieses Gerätes dienen.

Wenn das Stromkabel beschädigt ist, muss es vom Hersteller, seinem Kundendienst oder ähnlich qualifiziertem Fachpersonal ersetzt werden, um Gefahren zu vermeiden.

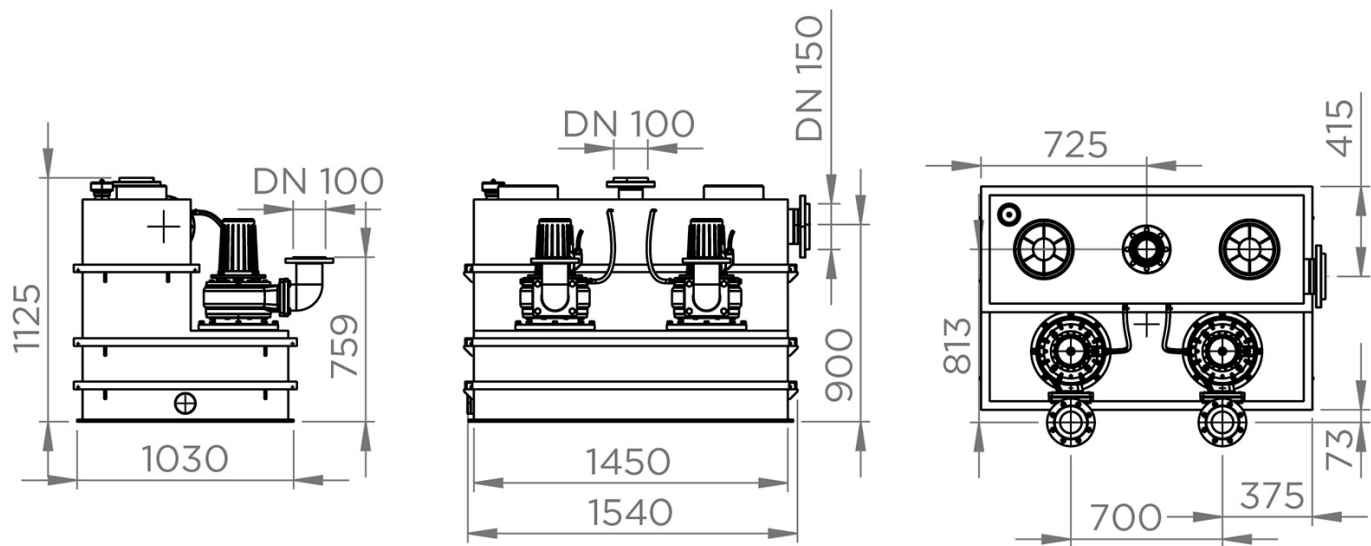
Die Stromzufuhr muss über eine Sicherung, Trennung aller Pole (mindestens 3 mm

DIMENSIONS / ABMESSUNGEN / DIMENSIONI / AFMETINGEN / DIMENSIONES / DIMENSÕES / ROZMĚRY / WYMIARY / РАЗМЕРЫ / DIMENSIONER / DIMENSJONER / KÍCH THƯỚC / माप

Sanicubic 1 SC



Sanicubic 2 SC



## 1. SAFETY

### 1.1 IDENTIFICATION OF WARNINGS

|                                                                                  | Meaning                                                                                                       |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>DANGER</b>                                                                    | This term defines a high risk of danger, which can lead to death or serious injury, if not avoided.           |
| <b>WARNING</b>                                                                   | This term defines a medium risk of danger, which can lead to serious or minor injury, if not avoided.         |
| <b>NOTICE</b>                                                                    | This term characterises dangers to the machine and its proper operation.                                      |
|  | Warning of a general danger. The danger is specified by indications given in the table.                       |
|  | This symbol characterises dangers associated with the voltage and provides information on voltage protection. |

### 1.2 GENERAL POINTS

The operation manual at hand provides basic notes which have to be taken into account during assembly, operation and maintenance works. Therefore, before assembly and commissioning, this operation manual has to be read by the assembler as well as the responsible personnel/operator at all costs. It always has to be available on site of operation of the machine/plant.

The general safety notes listed under the main point safety are not the only notes to be taken into account. Please also observe the specific safety instructions, such as those for private use, listed under other main points.

### 1.3 INTENDED USE

Only use the pumping station in the fields of application described in this documentation.

- The lifting station must only be operated in technically perfect conditions.
- Do not operate the partially assembled lifting station.
- The lifting station must only pump the fluids described in this documentation.
- The lifting station must never operate without pumped fluid.
- Consult us for operating modes not described in this documentation.
- Never exceed the usage limits defined in the documentation.
- The safe operation of the station is only ensured if it is used as described in this manual.

### 1.4 QUALIFICATION AND TRAINING OF STAFF

Commissioning and maintenance of this device must be performed by a qualified professional. Please refer to installation standard EN 12056-4.

### 1.5 SAFETY INSTRUCTIONS FOR MAINTENANCE, INSPECTION AND ASSEMBLY WORK

- Any alteration or modification of the pumping station will void the warranty.
- Only use original parts or parts recognised by the manufacturer. The use of other parts may void the manufacturer's liability for any resulting damage.
- The customer has to ensure that all maintenance, inspection and assembly work is carried out by authorised and qualified specialist personnel, who have been sufficiently informed through relevant and adequate study of the operating manual.
- Work on the machine is to be done only when it is shut down. The procedure for shutting down the machine is described in the operating manual and is to be precisely adhered to.
- Lifting stations that discharge fluids that are harmful to health must be cleaned. Before recommissioning, observe the commissioning instructions (see 5. *Commissioning*).
- Keep unauthorised persons (e.g. children) away from the lifting station.
- Observe all safety instructions and instructions in this operating (and installation) manual.

This operating manual must always be available on site so it can be accessed by qualified staff and the operator.

### 1.6 RISKS AND CONSEQUENCES OF NON-COMPLIANCE WITH THE OPERATING MANUAL

Failure to comply with this operating and installation manual will result in the loss of warranty rights and rights to damages.

## 2. TRANSPORT, TEMPORARY STORAGE, DISPOSAL

### 2.1 RECEIVING INSPECTION

- When receiving goods, check the condition of the lifting station's packaging.
- In case of damage, note the exact damage and immediately notify the dealer in writing.

### 2.2 TRANSPORT

| <b>DANGER</b>                                                                       |                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Dropping the pumping station.</b><br>Risk of injury if the pumping station is dropped!<br>⇒ Keep the pumping station horizontal when moving it.<br>⇒ Observe the indicated weight.<br>⇒ Never suspend the pumping station by the power cord.<br>⇒ Use suitable means of transport. |

- Always transport the lifting station in a horizontal position.
- Choose suitable means of transport.

|                     | GROSS WEIGHT |                     | GROSS WEIGHT |
|---------------------|--------------|---------------------|--------------|
| Sanicubic 1 SC3.0 T | 210 kg       | Sanicubic 2 SC3.0 T | 370 kg       |
| Sanicubic 1 SC4.0 T | 220 kg       | Sanicubic 2 SC4.0 T | 385 kg       |
| Sanicubic 1 SC5.5 T | 225 kg       | Sanicubic 2 SC5.5 T | 400 kg       |
| Sanicubic 1 SC7.5 T | 240 kg       | Sanicubic 2 SC7.5 T | 425 kg       |

- Inspect the pumping station to make sure there is no damage due to transport.

### 2.3 TEMPORARY STORAGE/PACKAGING

- The machine can be kept in interim storage and conserved in a cool, dark, dry and frost-free site.
- The systems should stand in horizontal position.
- In the case of commissioning after an extended storage period, take the following precautions to ensure storage of the pumping station:

**NOTICE****Wet, dirty or damaged openings and junction points.**

Leaks or damage to the pumping station!

⇒ Clear the pumping station's blocked openings at the time of installation.

**2.4 DISPOSAL**

The device must not be disposed of as household waste and must be disposed of at a recycling point for electrical equipment. The device's materials and components are reusable. The disposal of electrical and electronic waste, recycling and recovery of any form of used appliances contribute to the preservation of our environment.

**3. DESCRIPTION****3.1 GENERAL DESCRIPTION**

The effluent lifting stations **Sanicubic SC** are single or double systems that are ready to plug in and safe against flooding, with collection chambers made of gas- and odour-proof plastic. They work with vertical cutting unit pumps with automatic pneumatic level control. They are completely equipped with switch boxes and all necessary switching elements.

**3.2 APPLICATIONS**

The effluent lifting units of the **Sanicubic SC** production series are used for the disposal (collection and conveying) of domestic and industrial wastewater located below the backflow level of the sewers.

The following liquids/substances are not allowed in discharge systems:

- Solid materials, fibres, tar, sand, cement, ash, coarse paper, hand towels, wipes, cardboard, rubble, rubbish, slaughterhouse waste, oils, greases, etc.,
- waste waters containing substances that could attack or damage the pumps or tank materials,
- Wastewater containing harmful substances (for example, untreated greasy waste from restaurants). Pumping these liquids and substances requires the fitting of a compliant grease trap.

**3.3 OPERATING PRINCIPLE**

The wastewater flows by gravity into the **Sanicubic SC** lifting station.

The collecting tank is designed for **non-pressure operation**. Wastewater is collected there at atmospheric pressure before being discharged to the sewer.

The water rising in the tank compresses the air in the dip tube screwed to the top of the tank. When the preset switch-on height is reached, the pump is activated and pumps the water out of the tank via the discharge line. A non-return ball valve (not provided) prevents the water from flowing back from the discharge line into the tank.

For double pumps models, both pumps operate each in turn, alternately. In case of abnormal operation, both engines run simultaneously (or if one pump fails, the other takes over).

The control box is equipped with an audible alarm that is activated in case of pump(s) failure or if the water level in the tank is too high. External alarm devices can be connected to the terminal blocks provided (refer to the control box manual). Their location is indicated on the wiring diagram of the switchgear.

**3.4 SCOPE OF SUPPLY**

The sewage lifting stations of the **Sanicubic SC** series are supplied with pneumatic control and a control box.

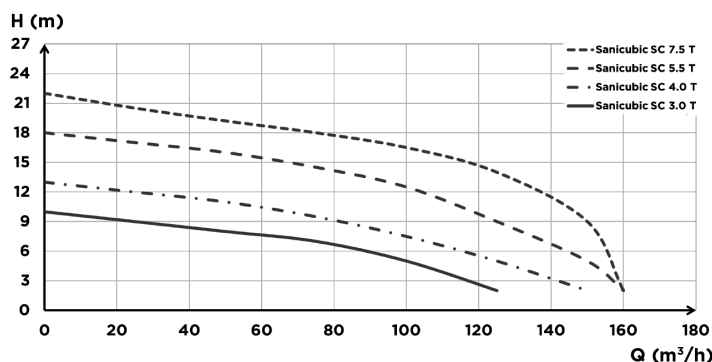
**3.5 TECHNICAL DATA**

| SANICUBIC 1 SC<br>SANICUBIC 2 SC      | 3.0 T  | 4.0 T | 4.0 T<br>(60 Hz) | 5.5 T | 7.5 T |
|---------------------------------------|--------|-------|------------------|-------|-------|
| Power P1 (kW)                         | 4.0    | 5.5   |                  | 6.3   | 8.7   |
| Power P2 (kW)                         | 3.0    | 4.0   |                  | 5.5   | 7.5   |
| Voltage U (V)                         | 400    |       |                  |       |       |
| Maximum absorbed current (A)          | 6.9    | 11.2  | 9.3              | 12.1  | 16.9  |
| Rated speed (n <sup>1</sup> )         | 1400   |       | 1700             | 1400  |       |
| IP code                               | IP56   |       |                  |       |       |
| Max. flow rate (m <sup>3</sup> /h)    | 120    | 140   |                  | 160   | 165   |
| Max. discharge height (m)             | 10     | 13    |                  | 18    | 22    |
| Max. temperature of the pumped liquid | 55°C   |       |                  |       |       |
| Operating mode                        | S3 25% |       |                  |       |       |
| Discharge diameter                    | DN 100 |       |                  |       |       |
| Inlet diameter                        | DN 150 |       |                  |       |       |
| Ventilation diameter                  | DN 100 |       |                  |       |       |
| Free passage (mm)                     | 80     |       |                  | 100   |       |
| Sanicubic 1 SC                        |        |       |                  |       |       |
| Total volume (l)                      | 480    |       |                  |       |       |

|                       |       |
|-----------------------|-------|
| Useable volume (L)    | 270   |
| <b>Sanicubic 2 SC</b> |       |
| Total volume (L)      | 1,000 |
| Useable volume (L)    | 500   |

**Material**

|               |            |                            |                                                                      |
|---------------|------------|----------------------------|----------------------------------------------------------------------|
| Tank          | PE HD      | Shaft sealing - motor side | lip ring seal                                                        |
| Pump housing  | EN-GJL-200 | Shaft sealing - pump side  | Mechanical seal (up to 4 kW) or chilled cast iron seal (from 5.5 kW) |
| Motor housing | EN-GJL-200 | Shaft                      | Stainless steel 1.4101                                               |
| Impeller      | EN-GJL-200 |                            |                                                                      |

**3.6 CURVE****3.7 OVERVIEW**

See pg. 21.

**3.8 DIMENSIONS**

See pg. 8.

**4. INSTALLATION****4.1 PREPARATION**

- The characteristics shown on the rating plate have been compared with those on the order and installation (supply voltage, frequency).
- The installation room must be protected against frost.
- The installation room is adequately lit.
- The work has been prepared in accordance with the standard EN 12056-4.
- The plant room where the **Sanicubic SC** will be installed must be large enough to allow a 600 mm clearance around and above the device to facilitate maintenance. The height of the room should be approximately 2 to 2.5 m.
- The alarm signal is always visible to the user (if necessary, use an external alarm contact switch).
- In case of discharge of greasy effluents, the use of a degreasing tank is essential.
- Wastewater other than those mentioned above, for example, of artisanal or industrial origin, must not be discharged into the pipes without prior treatment.
- The floor of the room must be able to support the load of the entire installation.
- In underground rooms or rooms where there is a risk of water infiltration, it is recommended to place a drainage pump in a manhole.

**4.2 FITTING**

- A hook in the ceiling above the set-up site of the lifting unit facilitates assembly and potential maintenance and repair work on the pump.
- Prior to assembly, all construction and connection measurements should be checked and compared with the dimensions of the system. Here you should pay special attention that the constantly downward-inclining supply connection never lies lower than the inflow height of the collecting tank.
- Fit the pumping station on the bare ground and level it with a spirit level.
- To avoid any risk of the pumping station floating, attach it to the ground using the mounting kit provided.

**4.3 HYDRAULIC CONNECTION**

| <b>NOTICE</b> |                                                                                              |
|---------------|----------------------------------------------------------------------------------------------|
|               | ⇒ The pumping station must not be used as a control point for piping.                        |
|               | ⇒ Prop up the pipes upstream from the pumping station. Make connections without constraints. |
|               | ⇒ Use suitable means to compensate for thermal expansion of the piping.                      |
|               |                                                                                              |

### 4.3.1 Inlet

#### IMPORTANT

It is recommended that you mount check valves and stop valves on the inlet pipes. These must be mounted so that they do not hinder disassembly of the pumping station.

#### NOTE

All piping connections must prevent the propagation of noise and be flexible.

The piping is supported.

Maintain a minimum slope of 3% on the inlet pipes to ensure proper flow to the plant.

Insert the inlet pipe into the opening.

### 4.3.2 Discharge

#### NOTICE



#### Improper fitting of the discharge pipe.

Leaks and flooding of the installation room!  
 ⇒ The pumping station must not be used as a control point for piping.  
 ⇒ Do not connect other drain pipes to the discharge pipe.

To prevent the risk of back-flow of water from the sewer, install the discharge pipe in a «loop» so that its base, at the highest point, is located above the back-flow level.

A bend 90° is mounted as standard on the horizontal pressure discharge of the pump, which ends in a vertical direction.

The installation of non-return ball valve(s) in the pressure line of the lifting unit is mandatory.

It is recommended to install a shut-off valve behind the non-return valve in order to facilitate maintenance and possible replacement of the non-return ball valve.

The pressure pipe must be laid steadily rising and without unnecessary jumps in a bend above the backflow level and then steadily falling to the sewer connection. Pipe and fittings must be supported with pipe clamps or brackets, if necessary.

### 4.3.3 Ventilation

#### IMPORTANT

**According to the recommendations of EN 12050-1, it must be equipped with a vent above the roof. The pumping station must always be ventilated so that the tank is always at atmospheric pressure. The ventilation must be completely free and air must flow in both directions (no diaphragm valve fitted).**

- Connect the station's ventilation pipe, either directly to the building's ventilation pipe or installed separately and directed above the roof.
- The connection should be made vertically to the ventilation opening DN100.
- The connection must be smell-proof.
- The vent pipe must not be connected to the vent pipe on the inlet side of a grease trap.

#### NOTICE



#### Insufficient ventilation.

Risk that the pumping station will not work!  
 ⇒ Do not connect to a mechanically controlled ventilator.  
 ⇒ Ventilation must remain free.  
 ⇒ Do not block the vent outlet.  
 ⇒ Do not install an air intake valve (diaphragm valve).

### 4.4 ELECTRICAL CONNECTION

#### DANGER



⇒ **Disconnect electrical power before working on the unit!**

#### DANGER



#### Electrical connection work performed by an unqualified individual.

Risk of death by electric shock!  
 ⇒ The electrical connection must be performed by a qualified and licensed electrician.  
 ⇒ The electrical installation must meet the current standards in the country.

- All electrical installations used must comply with IEC 60364/NF C 15-100, which means that sockets must, for example, be equipped with earth terminals.

- The electrical power supply must be protected with a high sensitivity circuit breaker set to 30 mA upstream of the control unit, or to prevent a failure of the control unit when the residual current circuit breaker responds, one residual current circuit breaker per pump must be installed between the control box and the lifting station. This connection must be used exclusively for the **Sanicubic SC** power supply.

- Please observe the regulations of EN 12056-4.

- The external protection must generally be 3-pole mechanically interlocked with automatic circuit breakers. This ensures complete disconnection from the mains and prevents 2-phase operation.

- All electrical devices such as control system, alarm transmitter and socket must be installed in dry rooms so that they are protected against flooding.

- The motor can overheat due to overload. In case of overheating, never touch the hot surfaces on the motor.

#### WARNING



#### Hot surface.

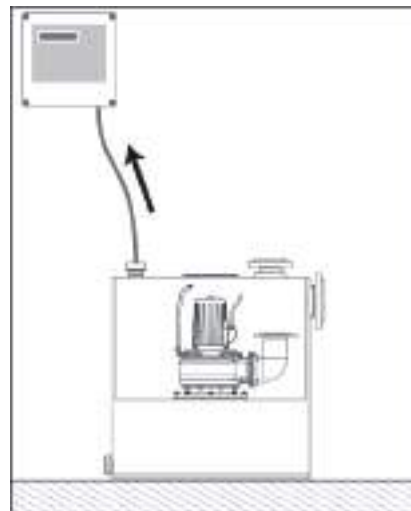
Burn Hazards!  
 ⇒ Never touch the surface of the motor housing without protective equipment.

The wiring diagram of the lifting station is available in the instructions manual for the control box and should be kept there to facilitate the work of the maintenance and service personnel.

## 5. COMMISSIONING

### 5.1 PREPARATION

- Before commissioning, all connections have to be checked again for correct installation. It must have been made sure that the safety regulations have been complied with.
- Install and connect the control box: refer to the installation instructions supplied with the control box.
- The control must be installed in such a way that the blue pneumatic hose for the level control can be laid rising steadily from the lifting unit to the connection at the switch box.



This is the only way to ensure proper functionality of the automatic control.

#### NOTICE



#### Pneumatic hose with downward slope, low points. Control line kinked or squeezed. Control line extended.

Risk of condensation!  
 Risk of signal disruption!  
 ⇒ Follow the installation rules above and in the control box manual.

### 5.2 COMMISSIONING OPERATIONS.

The control box is prepared by the factory with these settings:

| Switch-off point<br>N1 | Switch-on point<br>N2 | Switch-on N3<br>Double system only | Alarm level<br>HW | Delayed stop:<br>«overrun» menu |
|------------------------|-----------------------|------------------------------------|-------------------|---------------------------------|
| 30 mm                  | 350 mm                | 370 mm                             | 400 mm            | 10 s                            |

**NOTICE****Insufficiently filled pump housing.**

Danger of de-priming!

⇒ It is imperative that the level sensor is set correctly so that the pump casing is completely filled for immediate pumping.

- Switch on the power.

- Check the phase connection:

The control box is equipped with a phase monitor to prevent two-phase operation. Force start the pump (pumps, one after the other on two-pump systems). In case of a «Phase» alarm, switch off the power at the station, connect the 3 phases correctly at the control box.

- Check the direction of rotation of the pump:

Using a coin, unscrew the small cover on top of the pump. The upper part of the motor shaft is now visible and marked with a trace of paint. Turn the pump on by hand. Observe the direction of rotation of the mark and compare it with the direction of the arrow (motor housing). If they are not identical, switch off the power and invert 2 of the phases at the control box. Screw the cover back on. Two-pumps installation: do the same with the other pump.

**WARNING****Presence of cutting impeller.**

Risk of pinching, cutting or amputating fingers or other body parts.

⇒ Keep away from moving parts.

- On the control box, press the button «Auto» to carry a test Run:

- Open the inspection cover.

- Fill the collecting tank via the normal inlet (washbasin, toilet...) until the pump switches on. The station must automatically switch on, pump the tank empty and switch off again. After switching off, no waste may flow from the pressure line back into the tank.

- Double installations: both pumps must be switched on alternately.

- Correct the delay time according to the installation conditions and the discharge height so that the pump empties the collection tank as much as possible and only runs briefly in snore mode (louder noise during pumping). The dip tube must no longer be immersed in the liquid at the end of the pumping process (display 0 cm in the control). The delay time can be changed on the control box.

- During the initial test run, check pipes for tightness and reseal them, if necessary.

- Close the inspection cover.

If the station is working properly, leave it in automatic mode.

- Setting at the control box:

Activate the option «Automatic start every 24 hours» («24h start» then «is activated» on the display of the control box). The pump(s) is (are) then activated briefly even if no load is applied via the switch-on level. This prevents blocking due to non-use.

**5.3 OPERATING LIMITS****NOTICE****Pressure and temperature limits exceeded.**

Leakage of hot or toxic fluid!

⇒ Observe the operating specifications in the documentation.

⇒ Avoid running the pump with the valve closed.

⇒ Dry running, without pumped fluid, must be avoided.

When in use, observe the following parameters and values:

| Parameter                             | Value                                     |
|---------------------------------------|-------------------------------------------|
| Max. allowed temperature of the fluid | 35°C<br>up to 55°C when pumped 5 min max. |
| Operating mode                        | Intermittent service S3 25%               |

- The lifting unit is not designed for continuous operation! The conveying data stated on the factory plate apply only for intermittent periodic duty (S3 25 %).

- The maximum permissible feed flow must always be smaller than the feed volume of a pump (see 3.6).

- Do not leave the lifting station unused for a long time (see 5.2).

**NOTICE****Lifting station not in use for a long time.**

Risk of seal blockage.

⇒ Activate the option «24 hours start» on the control box.

⇒ Do not disconnect the power supply to the lifting station when not in use.

**6. DECOMMISSIONING**

1. Close the valve on the inlet pipes.
2. Drain the tank by pressing the forced mode button on the control box. Close the valve on the discharge pipes.
3. Switch off the electrical power supply and record the installation.
4. Inspect the hydraulic parts and shredding blades (depending on the model). Clean them if necessary.

**WARNING****Presence of cutting impeller.**

Risk of pinching, cutting or amputating fingers or other body parts.

⇒ Even when switched off, care must be taken when handling a pump.

⇒ Keep away from moving parts.

⇒ Never touch the impeller without protective equipment.

5. Clean the tank.

**7. CLEANING/MAINTENANCE****DANGER**

⇒ **Disconnect electrical power before working on the unit!**

**WARNING****Work performed on the pumping station by unqualified staff.**

Risk of injury !

⇒ Repairs and maintenance must be performed by specially trained staff

**WARNING****Work on the pumping station without adequate preparation.**

Risk of injury!

⇒ Properly stop the pumping station and secure it against inadvertent operation.

⇒ Close the inlet valves.

⇒ Drain the pumping station.

⇒ Close the valve on the discharge pipes.

⇒ Allow the pumping station to cool to room temperature.

**7.1 INSPECTION AND MAINTENANCE SCHEDULE.**

In accordance with EN 12056-4, pumping stations must be maintained to ensure the proper disposal of wastewater and to detect and eliminate malfunctions at an early stage.

The proper functioning of pumping stations must be checked by the user once a month by observing at least two operating cycles. While doing so, attention has to be paid for abnormalities, e.g. unusual running noises of the pump. If irregularities are noted, call qualified staff.

According to DIN EN 12056-4, lifting units have to be regularly checked within the following time intervals:

- every 12 months in case of installation in detached houses,
- every 6 months in apartment blocks,
- every 3 months in case of installation in commercial and industrial enterprises.

In order to guarantee permanent operational safety of the lifting unit, we recommend to conclude a maintenance agreement.

**7.2 CHECKLIST FOR INSPECTION AND MAINTENANCE**

Check the power supply. Compare the values with those of the rating plate.

Check the connection of the power supply to the earth.

Check the connection of the power supply to a 30 mA GFCI breaker.

Check the proper operation of the motors by pressing the forced mode buttons. If abnormal, make sure the pump is not clogged, check the resistance values of the engine coils.

Check the motor rotation direction.

Perform a functional test over several cycles.

Check the correct installation and state of wear of the couplings.

Check the proper operation and effectiveness of the alarm device.

Check the proper operation and seal of the shut-off valves and non-return valves.

Dismount and clean the pitot tube.

Check the control line, check connections on the tank and on the control box.

Consult the alarm log (control box)

Consult the pump operation log (control box)

Inspect the hydraulic parts and cutting blades. Clean them if necessary.

## WARNING



### Presence of cutting impeller.

Risk of pinching, cutting or amputating fingers or other body parts.

⇒ Keep away from moving parts.

Advise and/or train operating staff.

## 7.3 COLLECTING TANK

Inspect the tank, check for possible deposits, the presence of grease and foreign bodies. Thoroughly clean the tank and remove foreign bodies.

## 7.4 MAINTENANCE CONTRACT

As with any technical, high-performance equipment, **Sanicubic SC** pumping stations must be maintained to ensure a sustainable level of performance. We recommend you take out a maintenance contract with a qualified company to carry out regular inspection and maintenance work. For more information, please contact us.

## 8. INCIDENTS, CAUSES AND SOLUTIONS

### DANGER



⇒ **Disconnect electrical power before working on the unit!**

### NOTICE



**Never unscrew the 4 hex head screws no. 16 (see Appendix B): this will cause oil leakage, damage to the mechanical seal and invalidate the warranty.**

**- To dismantle the motor block only, unscrew the 4 no. 13 screws.**

**- To dismantle the whole pump, loosen the 4 nuts no. 23.**

| Malfunction                          | Cause                                                                      | Remedies                           |
|--------------------------------------|----------------------------------------------------------------------------|------------------------------------|
| Motor does not rotate.               | Too low voltage, voltage missing.                                          | Check voltage supply.              |
|                                      | Incorrect power connection.                                                | Correction.                        |
|                                      | Power cable defective.                                                     | Replacement (after-sales service). |
|                                      | Fault on the capacitor - only with single-phase station.                   | Replacement (after-sales service). |
|                                      | Impeller blocked.                                                          | Clean.                             |
|                                      | Motor protection switched off due to overheating, blockage, voltage error. | Check/Customer service.            |
|                                      | Control error.                                                             | Check/Customer service.            |
|                                      | Pneumatic hose or connection leaky.                                        | Check/Customer service.            |
| Motor rotates, but does not deliver. | Motor defective.                                                           | Replacement (after-sales service). |
|                                      | Impeller clogged or worn.                                                  | Clean/Replace.                     |
|                                      | Check valve clogged.                                                       | Clean.                             |
|                                      | Shut-off valve clogged or closed.                                          | Clean/Open.                        |
|                                      | Pressure line clogged.                                                     | Clean.                             |
|                                      | Intake socket clogged.                                                     | Clean.                             |
|                                      | Direction of rotation incorrect.                                           | Correction.                        |
|                                      | Water shortage in the tank.                                                | Switch off/Customer service.       |
| Motor rotates, but switches off.     | Tank ventilation clogged.                                                  | Clean.                             |
|                                      | Pump housing ventilation clogged.                                          | Clean.                             |
|                                      | Voltage wrong or fluctuates.                                               | Correction/Customer service.       |
|                                      | Overcurrent release incorrectly set.                                       | Set properly.                      |
| Motor does not switch off.           | Power consumption too high.                                                | Customer service.                  |
|                                      | Control error.                                                             | Customer service.                  |

## 9. STANDARDS

The lifting stations **Sanicubic SC** conform to Low Voltage, EMC and Machinery directives, and to EN 12050-1 Construction Products Regulation.

## 10. GUARANTEE

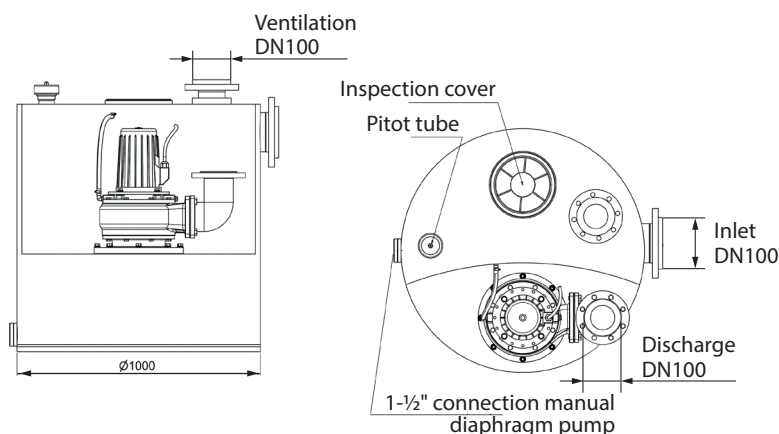
As the manufacturer, we provide a 24-month warranty for this appliance from the date of purchase.

Your receipt of purchase is valid as proof. Within this warranty period, we will, at our discretion, remedy all defects attributable to material or manufacturing faults by repair or replacement free of charge.

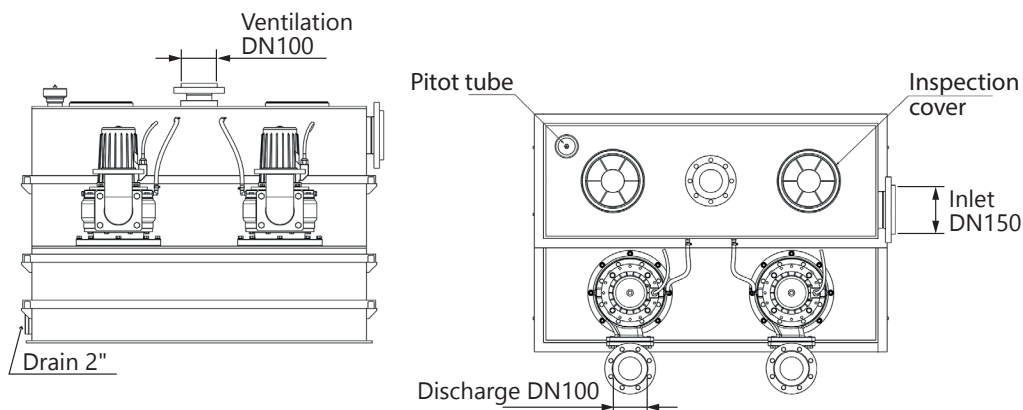
Damage caused by improper installation and/or use, and wear and tear is excluded from the warranty. We shall not be liable for consequential damage caused by failure of the device.

## APPENDIX A: OVERVIEW

### SANICUBIC 1 SC

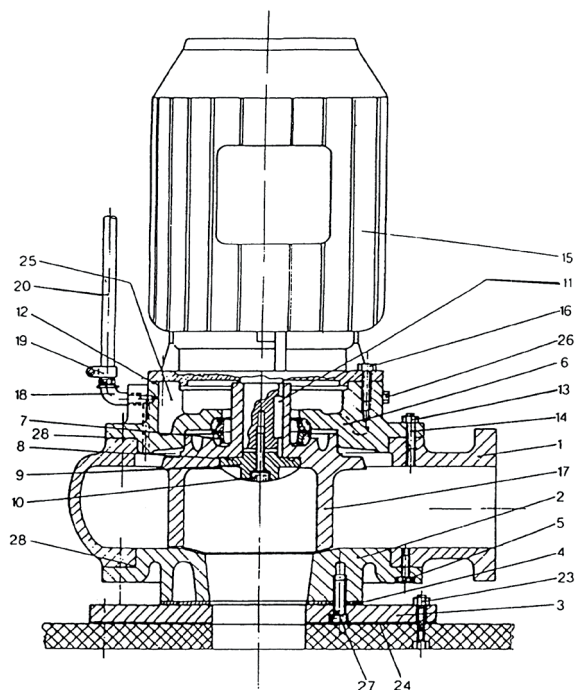


### SANICUBIC 2 SC



## APPENDIX B: LIST OF SPARE PARTS

### Sectional drawing of the pump



| ITEM | QUANTITY | DESIGNATION                                       | ART-NO |
|------|----------|---------------------------------------------------|--------|
| 1    | ZE1384   | Pump housing SANICUBIC® SC 3.0 and 4.0            | 1 (2)  |
|      | ZE1138   | Pump housing SANICUBIC® SC 5.5 and 7.5            | 1 (2)  |
| 2    | ZE1129   | Cover QSHE/101 SANICUBIC® SC 3.0 and 4.0          | 1 (2)  |
|      | 120141   | Cover QSHE/100Z-3 SANICUBIC® SC 5.5 and 7.5       | 1 (2)  |
| 3    | 200 005  | Reception flange plate                            | 1 (2)  |
| 4    | ZE1566   | Flat seal 340 x 105 x 3                           | 1 (2)  |
| 5    | 117724   | Hexagon screw M10x25                              | 8 (16) |
| 6    | 145015   | Seal carrier GG SANICUBIC® SC 3.0 und 4.0         | 1 (2)  |
|      | 145023   | Seal carrier GG SANICUBIC® SC 5.5 und 7.5         | 1 (2)  |
| 7    | 279950   | Mechanical seal 3.0 and 4.0 kW                    | 1 (2)  |
|      | 80115    | Chilled casting seal 5.5 and 7.5 kW               | 1 (2)  |
| 8    | 80114    | O-ring 50 x 3                                     | 1 (2)  |
| 9    | 120127   | Impeller cap SANICUBIC® SC 3.0 and 4.0            | 1 (2)  |
|      | 120143   | Impeller cap SANICUBIC® SC 5.5 and 7.5            | 1 (2)  |
| 10   | ZE1237   | Hexagon screw M 10 x 30                           | 1 (2)  |
|      | 145013   | Sealing disc Cu 10 x 20 x 2.0 mm                  | 1 (2)  |
| 12   | 60107    | O-ring 190 x 3                                    | 1 (2)  |
|      | ZE1237   | Hexagon screw M 10 x 30 SANICUBIC® SC 3.0 and 4.0 | 8 (16) |
| 13   | ZE1516   | Hexagon screw M 12 x 30 SANICUBIC® SC 5.5 and 7.5 | 8 (16) |
|      | 111103   | Motor unit 3.0 kW with impeller                   | 1 (2)  |
| 15   | 111104   | Motor unit 4.0 kW with impeller                   | 1 (2)  |
|      | 111107   | Motor unit 5.5 kW with impeller                   | 1 (2)  |
| 16   | 111108   | Motor unit 7.5 kW with impeller                   | 1 (2)  |
|      | 22936    | Motor unit 4.0 kW with impeller 60 Hz             | 1 (2)  |
| 17   | ZE1130   | Hexagon screw M 12 x 25                           | 4 (8)  |
|      | ZE1302   | Spring washer B 12                                | 4 (8)  |
| 18   | 120134c  | Impeller D=200 mm, 3.0 kW                         | 1 (2)  |
|      | 120134e  | Impeller D=220 mm, 4.0 kW                         | 1 (2)  |
| 19   | 120142a  | Impeller D=230 mm, 5.5 kW                         | 1 (2)  |
|      | 120142b  | Impeller D=250 mm, 7.5 kW                         | 1 (2)  |
| 20   | 22822    | Impeller D=184 mm, 4.0 kW 60 Hz                   | 1 (2)  |
|      | 117031   | Angle grommet R 3/8"                              | 1 (2)  |
| 21   | ZE1582   | Hose clamp                                        | 2 (4)  |
|      | 117030   | Venting hose                                      | 1 (2)  |
| 23   | ZE1382   | Hexagon nut M 12                                  | 8 (16) |
|      | ZE1302   | Spring washer B 12                                | 8 (16) |
| 24   | ZE1121   | Flat seal DN 100                                  | 1 (2)  |
|      | 14009    | Oil filling 0.8 l, SANICUBIC® SC 3.0 and 4.0      | 1 (2)  |
| 25   | 14009    | Oil filling 1.0 l, SANICUBIC® SC 5.5 and 7.5      | 1 (2)  |
|      | 140025   | Oil filling screw 3/8" thread                     | 1 (2)  |
| 26   | 140030   | Seal ring 17 x 22 x 1.5 mm, Cu                    | 1 (2)  |
|      | ZE1647   | Hexagon socket screw M 16 x 30                    | 4 (8)  |
| 27   | 120131   | O-Ring 236 x 3 SANICUBIC® SC 3.0 and 4.0          | 1 (2)  |
|      | 120139   | O-Ring 270 x 3 SANICUBIC® SC 5.5 and 7.5          | 1 (2)  |