

Installation manual

BEKOMAT® 31U / 31U F Service-Unit

- > SUBM31U
- > SUBM31UF

■ Table of contents

1. Information on documentation	4
1.1 Contact	4
1.2 Installation information and operating manual.....	4
1.3 Additional valid documents.....	4
2. Safety	5
2.1 Use	5
2.1.1 Intended use.....	5
2.1.2 Foreseeable misuse	6
2.2 Responsibility of the operator	6
2.3 Target group and personnel.....	7
2.4 Explanation of the symbols used	8
2.5 Safety instructions and warning notices.....	9
2.5.1 Generally applicable safety instructions	9
2.5.2 Safe operation.....	9
2.5.3 Pressurized systems	10
2.5.4 Electrical voltage.....	10
2.5.5 Transport and storage.....	11
2.5.6 Installation.....	11
2.5.7 Maintenance	11
2.5.8 Handling hazardous substances	12
2.5.9 Work on electronic components	12
2.5.10 Use of spare parts, accessories or materials	12
2.6 Warning notices	13
3. Product information	14
3.1 Product overview	14
3.2 Exploded view	15
3.3 Type plate	16
3.4 Scope of delivery	17
4. Technical data	18
4.1 Operating parameters	18
4.2 Storage and transport parameters	19
4.3 Materials.....	19
4.4 Screw tightening torques.....	19
5. Transport and storage	20
5.1 Transport	20
5.2 Storage.....	20
6. Installation	21
6.1 Warning notices	21
6.2 Installation work	22
6.2.1 Function test	28
6.2.2 Visual inspection.....	28
6.2.3 Leakage test	28


7. Disposal	29
7.1 Warning notices	29
7.2 Disposal of operating fluids and auxiliary materials	30
7.3 Disposal of components.....	30

1. Information on documentation


This documentation describes all steps necessary for the use and operation of the product and the accessories.

1.1 Contact

Manufacturer	Service and tools
BEKO TECHNOLOGIES CORP. 900 Great Southwest Pkwy SW US - Atlanta, GA 30336 Phone: +1 (404) 924-6900 Fax: +1 (404) 629-6666 beko@bekousa.com	BEKO TECHNOLOGIES CORP. 900 Great Southwest Pkwy SW US - Atlanta, GA 30336 Phone: +1 (404) 924-6900 Fax: +1 (404) 629-6666 beko@bekousa.com

INFORMATION	Country specific manufacturer representation
	The contact to the country-specific manufacturer's representative can be found in the address section on the back or can be established via the contact form on the manufacturer's website.


1.2 Installation information and operating manual

INFORMATION	Copyright protection!
	The content of this installation and operating manual, in the form of text, images, photos, drawings, diagrams, and other illustrations, is copyright protected by the manufacturer. Unless expressly permitted, the dissemination and reproduction of this document, as well as the exploitation and disclosure of its contents, are strictly prohibited.

Publication date	Revision	Version	Reason for change	Scope of change
1 August 2022	03	00	Editorial revision	Editorial changes

The installation and operating manual, referred to as the manual in the following, must be kept near the product at all times and must always be in a legible condition.

The manual must be included if the product is sold or handed over to another party.

NOTICE	Observe the manual!
	This manual contains all basic information required to safely operate the product, and operators must read the manual before carrying out all work. Otherwise, the product may pose hazards to personnel and materials, and functional and operational disruptions may occur.

1.3 Additional valid documents

Further information can be found in the following documents:

- **BEKOMAT® 31U** installation and operating manual
- **BEKOMAT® 31U Built-in** installation and operating manual
- **BEKOMAT® 31U IF Built-in** installation and operating manual

2. Safety

2.1 Use

The **BEKOMAT® 31U / 31U IF Service-Unit**, hereafter also referred to as the product or **Service-Unit**, is a spare part for the electronically level-controlled **BEKOMAT® 31U / 31U Built-in / 31U IF Built-in** condensate drain, hereafter also referred to as **BEKOMAT®**.

2.1.1 Intended use

Any other use besides that described in this manual is deemed improper and poses a risk to personnel and the environment.

The following must be observed for proper use:

- Use this product exclusively as a spare part in a **BEKOMAT®**.
- Read and observe this manual.
- Use the product and accessories indoors only.
- Only use the product and accessories within the operating parameters indicated in the technical data.
- Only use the product and the accessories in accordance with the agreed delivery terms.
- Only use the product and the accessories with fluids free of caustic, aggressive, corrosive, toxic, flammable, oxidizing, and inorganic components. In case of doubt, analyze the media or accessories.
- Only use the product and accessories in an environment where at a maximum, only splash water may occur. The splash water must be free of corrosive components.
- Only use the product and accessories in areas that are free from toxic and corrosive chemicals and gases.
- Only use the product and accessories within a pipeline system designed for the technical data with appropriate connections, pipe diameters and installation clearances.
- Only use the product and accessories outside of explosion hazard areas.
- Only use the product and accessories away from direct sunlight and heat sources, and outside of areas that may frost.
- Only combine the product and the accessories with the recommended products and components from the manufacturer indicated in this manual.

Before using the product and accessories, the operator must ensure that all conditions and requirements for ensuring proper use are available.

The product and accessories are designed only for stationary use in commercial or industrial areas. All work described for mounting, installation, operating, maintenance, disassembly and disposal may only be carried out by qualified professional technicians.

2.1.2 Foreseeable misuse

If the product or accessories are used in a manner other than as described in the “Intended use” section, this will be considered a case of foreseeable misuse. Foreseeable misuse includes using the product or accessories in a manner that is not intended by the manufacturer or suppliers but that may occur due to foreseeable human behavior.

Foreseeable misuse includes:

- Carrying out modifications of all kinds, especially constructive and process-related alterations.
- Disabling or failing to use available or recommended safety equipment.
- The use of the product and accessories in systems with carbon dioxide as the operating medium.

This list does not claim to be exhaustive, since it is not possible to indicate all possible misuses in advance. If the operator knows of misuses of the product or accessories that are not listed here, the manufacturer must be informed of these promptly.


2.2 Responsibility of the operator

The operator must ensure the following in order to avoid accidents, disruptions and environmental impacts:

- Before taking any action, check whether this manual belongs to the product.
- The product and accessories are used, maintained and serviced properly.
- The product and accessories are used only with recommended and functional safety equipment.
- All assembly work, installation work, and maintenance work is carried out exclusively by qualified skilled technical personnel.
- Personnel have the required personal protective equipment, and this equipment is used.
- Suitable technical safety measures are taken to ensure that the permissible operating parameters are observed.
- Keep all safety labels and the type plate on the product in legible condition. Replace damaged and illegible markings immediately.

2.3 Target group and personnel

This manual is intended for the personnel listed below who are involved in working on the product or its accessories.

INFORMATION	Personnel requirements!
	Personnel may not undertake any actions involving the product or accessories if they are under the influence of drugs, medications, alcohol or other substances that may impair their perception.

Skilled technical personnel - Transport and storage

"Skilled technical personnel - Transport and storage" are personnel whose training, professional experience, and qualifications have provided them with all the skills necessary to safely complete any work associated with transportation, identify potential hazards independently, and take measures to prevent those hazards.

These skills include, in particular, experience handling hoists, forklifts, lifting equipment, and lifting devices, as well as familiarity with all regionally applicable regulations, standards and directives related to transportation and storage.

Skilled technical personnel specialized in pressure equipment and systems

"Skilled technical personnel specialized in pressure equipment and systems" refers to personnel whose training, professional experience, and qualifications have provided them with all the skills necessary to safely complete any work associated with pressurized fluids and systems, provide instructions, identify potential hazards independently, and take measures to prevent those hazards.

These skills include, above all, experience with the use of measuring equipment, control equipment, and regulation equipment, as well as familiarity with all regionally applicable regulations, standards, and directives for pressurized systems.

Skilled technical personnel - Trained electricians

"Skilled technical personnel - Trained electricians" refers to personnel whose basic and advanced training, professional experience, and qualifications have provided them with all the skills necessary to safely complete any work involving electricity, identify potential hazards independently, and take measures to prevent those hazards.










These skills include, in particular, experience handling electrical equipment, measuring equipment, control equipment, and regulation equipment, as well as familiarity with all regionally applicable regulations, standards, and directives (such as VDE 0100 / IEC 60364 / ATEX) for handling electrical equipment.

Skilled technical personnel - Service

"Skilled technical personnel - Service" are persons who have the skills and qualifications for all the aforementioned definitions concerning professional technicians. "Skilled technical personnel - Service" must be verifiably trained and authorized for all work on the product.

2.4 Explanation of the symbols used

The symbols used in the following indicate important and safety-related information that must be observed in handling the product and to ensure safe and optimal operation.

Symbol	Description / explanation
	General warning symbol (danger, warning, caution)
	Warning of pressurized system
	Warning of electrical voltage
	Observe the installation and operating manual
	General instructions
	Wear safety shoes
	Wear protective gloves (cut-resistant and liquid-resistant)
	Wear safety glasses with side protection (goggles)
	General information

2.5 Safety instructions and warning notices

This section provides an overview of all important safety aspects for the protection of persons and for the safe and trouble-free operation of the product and accessories.

The following sections list the dangers that arise from this product and the accessories even when used as intended. To minimize the risk of personal injury and property damage and to avoid dangerous situations, observe the safety instructions listed and comply with the warning notices in the other sections of this manual.

Basic warnings and required qualifications of the technical personnel are listed at the beginning of each section in the section "Warning notices".

Action-specific warning notices are located directly before potentially dangerous action steps or action sequences.

2.5.1 Generally applicable safety instructions

- Before starting work, consult the technical documents for the entire system and make sure to observe the general operating manual.
- Before starting work, carry out a last minute risk assessment.
- Use appropriate PPE (personal protective equipment) for all work.
- A safe area must be set up around the work area during all installation, maintenance and repair work.
- Follow the existing system-specific lockout/tagout procedure (LOTO) in order to safely de-energize the system and prevent energy-related hazards.

2.5.2 Safe operation

The following can result in serious injury or death:

- Starting up and operating the product and accessories outside the permissible limits and operating parameters
- Unauthorized tampering and unauthorized modifications to the product and accessories

Please observe the following points to ensure safe operation of the product and accessories:

- Observe the limit values and operating parameters specified on the type plate and in the instructions.
- Check whether operating parameters are changed or restricted through the use of permitted accessories.
- Observe the installation conditions and ambient conditions.
- Observe the maintenance intervals.

2.5.3 Pressurized systems

The following can result in serious injury or death:

- Contact with fluids that escape quickly or abruptly
- Bursting system components
- Whipping in the event of pressurized hose or pipe separation

For safe handling of pressurized systems, observe the following points:

- Observe the following safety rules for all work:
 1. Shut down the system or system section
 2. Lock out and tag out the system or system section
 3. Reduce the pressure in the system or all system sections all the way down to the ambient pressure
 - By slowly releasing the pressure in a controlled manner with relief valves, for example
 4. Lock out the system or system sections so that they cannot be pressurized by accident
- Check pressurized systems for contamination and damage and to make sure they are safe.
- Before pressurization, check all system connections for leak tightness and retighten them if necessary.
- When pressurizing systems, make sure to do so slowly.
- Avoid pressure surges and high pressure differentials.
- Compensate vibrations occurring in the pipeline network by using vibration dampers.

2.5.4 Electrical voltage

Contact with electrically live components can result in serious injury or death.

Observe the following points for the safe handling of electrically live components:

- Connect the product and accessories to a power supply only if they are in proper working order.
- Comply with all regionally applicable regulations and requirements during installation.
- The power supply must have a disconnect device that is easily accessible and close to the product. This disconnect device must disconnect all live cables.
- Connect the equipment protective conductor (earthing) in accordance with applicable regulations.
- Only operate the product and accessories with a complete and closed cover or closed electronic housing.
- Before starting work on the product:
 1. De-energize
 - Completely disconnect the product from all sources of power
 2. Lock out and tag out
 3. Check to make sure that the product is completely de-energized
 - With an appropriate and approved measuring device (e.g., two-pole voltage tester)
 4. Ground and short circuit

2.5.5 Transport and storage

Improper transportation and improper storage can result in personal injury or property damage.

For the safe transportation and storage of the product and accessories, observe the following:

- Use personal protective equipment for all work with packaging material.
- Handle the packaging of the product and the accessories with care.
- Transport and handle the packaged product and accessories according to the labeling on the packaging (observe attachment points for hoists, center of gravity and orientation such as holding vertically, do not throw, etc.).
- Use proper, functional transportation equipment and hoists.
- Observe the permissible transport parameters and storage parameters.
- Do not store the product and accessories exposed to direct sunlight and heat sources.

2.5.6 Installation

Improper assembly or electrical installation of the product and accessories can result in personal injury and property damage, as well as impairment of operation.

For safe assembly and electrical installation, observe the following points:

- Mount the product, the accessories, all parts and materials used free of mechanical tension.
- Check all plug connections are correctly fitted.
- Avoid any risk of tripping by using appropriate cable guides and hose guides.
- Avoid mechanical stress on the cables.
- Fasten and fix all hoses in such a way that they cannot make any percussive movements.
- Securely pipe the inlet and drain lines.

2.5.7 Maintenance

Improper performance of maintenance and repair work can result in serious injury or death.

Please observe the following points for safe maintenance and repair:

- Before starting work, bleed the pressurized product and accessories and lock them out so that they cannot be pressurized by accident.
- Before starting work, de-energize the product and accessories from the power supply and lock and tag them out.
- Only use materials approved for the respective application.
- Use only suitable tools in perfect condition.
- Only use cleaned pipes and hoses that are free of dirt and corrosion.
- Do not use abrasive or aggressive cleaning agents or solvents that could damage the external coating (e.g. labels, type plate, corrosion protection, etc.).
- Do not clean or operate the device with hard or pointed implements.
- Make sure to only use the specified materials and fluids for cleaning.
- Comply with all applicable hygiene regulations and regional and internal hygiene rules and standards.
- Ensure order and cleanliness during maintenance and repair work. Prevent impurities from penetrating into the opened product or accessories. Store dismantled components and accessories directly in a safe place.
- After completing maintenance and repair work, remove all tools, cleaning fluids, and parts no longer required from the work area.
- Only dispose of the product and accessories once they have been cleaned and are free of any residual fluids.
- All components, assemblies, operating, auxiliary materials and cleaning agents must be disposed of appropriately and according to regional statutory specifications and provisions.
- Dispose of electrical and electronic components through a specialized disposal company or return them to the manufacturer.

2.5.8 Handling hazardous substances

Substances contained in the condensate that are hazardous to health and the environment can irritate and damage the skin, eyes and mucous membranes on contact. In addition, condensate contaminated with pollutants must not be allowed to enter the sewerage system, water bodies or the ground.

The following points must be observed for safe handling of condensate contaminated with pollutants:

- Use suitable protective equipment when handling condensate.
- Collect and dispose of leaked or spilled condensate in accordance with the locally applicable legal requirements and regulations.

2.5.9 Work on electronic components

Electrostatic discharge (ESD) can cause damage to electronic components and result in malfunctions, operational disruptions, and property damage.

- Take proper measures to prevent electrostatic discharge (e.g., grounding, equipotential bonding, anti-static mats, etc.).

2.5.10 Use of spare parts, accessories or materials

The use of incorrect spare parts, accessories or materials, as well as auxiliary and operating materials, may pose a mortal danger or the danger of severe injuries. Functional and operational disruptions may occur, as well as material damage.


- Only use undamaged original parts, auxiliary and operating materials specified by the manufacturer in carrying out all work.
- Only use materials permitted for the specific purpose and suitable tools in proper condition.
- Only use cleaned pipelines free from dirt and corrosion.
- Only use electrical components and materials that comply with the regionally applicable legal requirements and regulations (standards, directives, etc.) for electrical safety.

2.6 Warning notices

Warning notices caution against dangers in handling the product and accessories.

Observe the warning notices in order to avoid accidents, personal injury and property damage as well as impairments in operation.

Structural design:

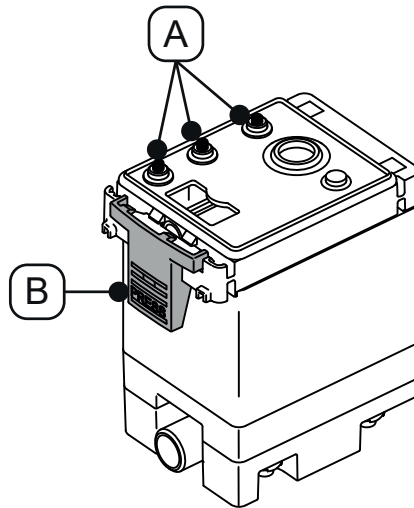
SIGNAL WORD	Type and source of danger!
 Symbol	Possible consequences if the hazard is not observed
	<ul style="list-style-type: none"> Measures to avoid the hazard

Signal words:

DANGER	Imminent danger Consequences of non-compliance: Death or severe personal injury
WARNING	Imminent danger Consequences of non-compliance: Death or severe personal injury are possible
CAUTION	Potential danger Consequences of non-compliance: Personal injury or damage to property is possible
NOTICE	Additional information Consequences of non-compliance: Property damage and disadvantages in operation are possible. No danger to personnel or safe operation.

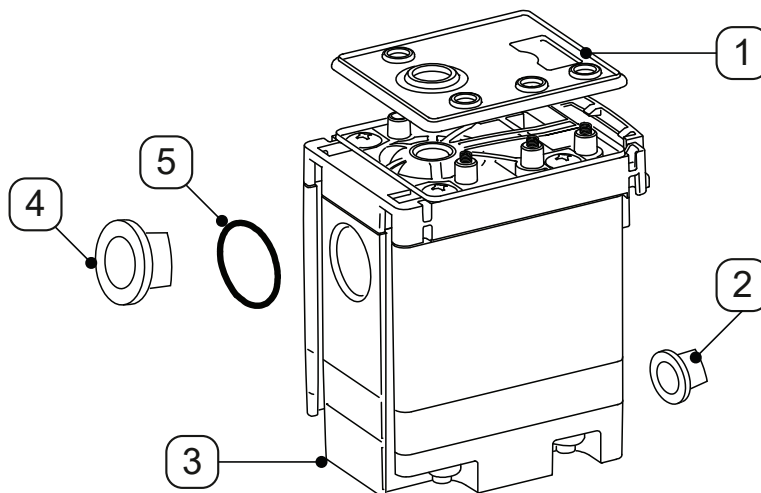
3. Product information

3.1 Product overview



Pos. no.	Description / explanation
[A]	Contact springs
[B]	Latching tab

3.2 Exploded view

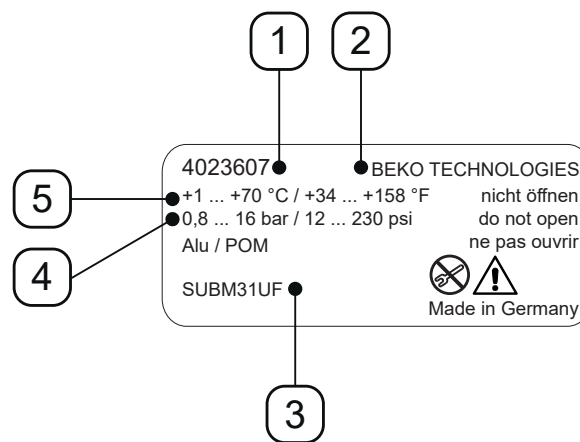


Pos. no.	Description / explanation
[1]	Sealing mat
[2]	Tapered plug
[3]	Service-Unit

Pos. no.	Description / explanation
[4]	G1/2 sealing plug
[5]	0.787 x 0.079 in O-ring

3.3 Type plate

The type plate, which contains identification information and operating parameters for the product, is located on the **Service-Unit**.



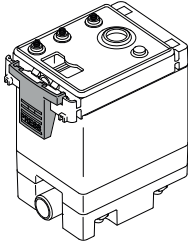

Example image

Pos. no.	Description / explanation
[1]	Material number
[2]	Manufacturer
[3]	Product designation
[4]	Operating pressure
[5]	Operating temperature

For more information, refer to section “2.4 Explanation of the symbols used” on page 8.

3.4 Scope of delivery

The following table shows the scope of delivery for the product:

Image	Description / explanation
	BEKOMAT® 31U / 31U IF Service-Unit
	Installation manual

4. Technical data

4.1 Operating parameters

BEKOMAT® Service-Unit	31U / 31U IF
Relative ambient humidity	10 ... 80 %, without condensate formation
Maximum operating height	2187.23 yd 2000 m
Min. / max. operating pressure	12 to 230 psi(g) 0.8 to 16 bar(ü)
Min. / max. operating temperature	+34 to +158 °F +1 to 70 °C
Average discharge rate	0.17 gal/h 0.63 l/h
Maximum discharge rate (short-time)	1.45 gal/h 5.5 l/h
Condensate inlet port*	1 x G1/2, internal, maximum screw-in depth: 1/2 in (13.5 mm)
Condensate drain port	1 x G1/4, male, barbed hose fitting for inside hose diameter of 0.31 to 0.39 in (8 to 10 mm)
Fluids	Condensate, oily or oil-free
Empty weight	0.84 lbs 0.38 kg

* NPT thread version is available as an option.

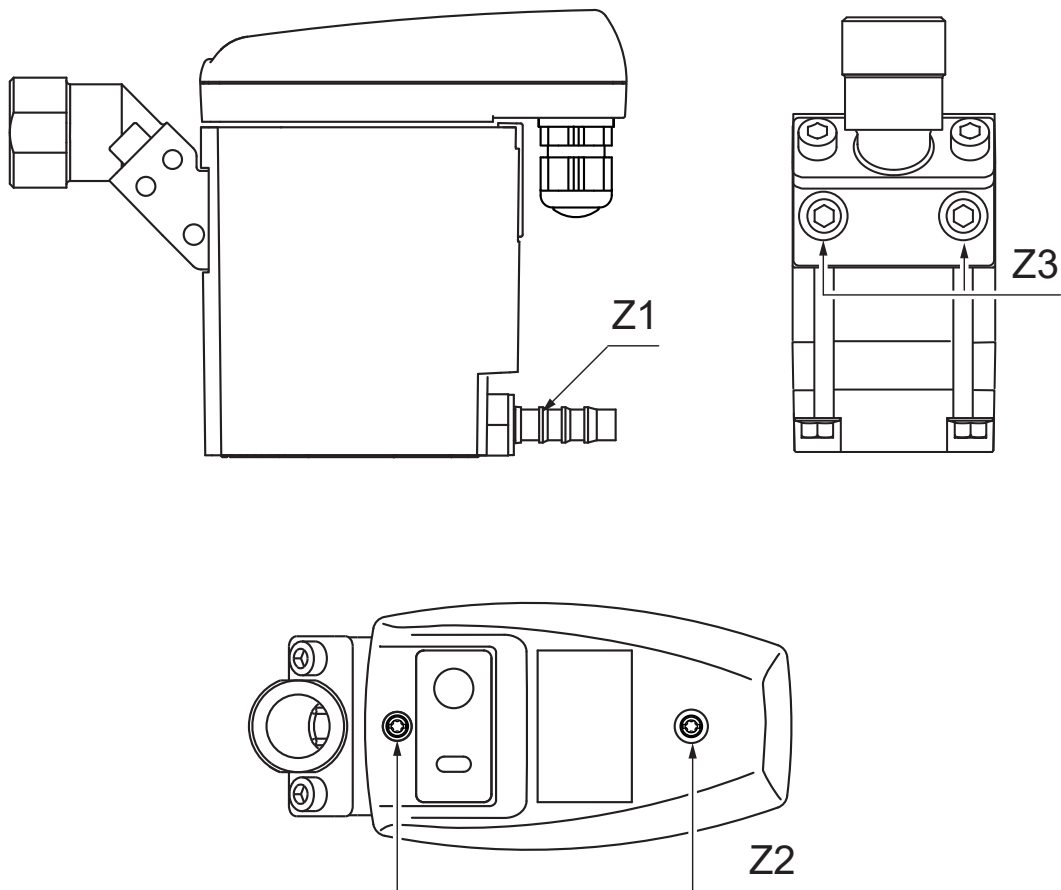
4.2 Storage and transport parameters

BEKOMAT® Service-Unit	31U / 31U IF
Minimum / maximum temperature, storage and transport	+34 to +158 °F +1 to +70 °C

4.3 Materials





BEKOMAT® Service-Unit	31U / 31U IF
Housing	Aluminum and plastic, glass fiber reinforced
Membrane	FKM

4.4 Screw tightening torques



Pos. no.	Description / explanation	Tightening torques
[Z1]	Barbed hose fitting, condensate drain	(2.21 to 2.95 ft-lb) 3 to 4 Nm
[Z2]	Screws, top cover	0.66 ft-lb +0.37 ft-lb (0.9 Nm +0.5 Nm)
[Z3]	Angle adapter screws	2.95 to 5.9 ft-lb (4 to 8 Nm)

5. Transport and storage

WARNING	Insufficient qualification!
	<p>If personnel have insufficient qualifications, this may result in accidents, personal injury and property damage as well as operating disruptions while working on the product or its accessories.</p> <ul style="list-style-type: none"> The work on the product and accessories described in the following may only be carried out by transportation and storage skilled technical personnel and must be documented.
CAUTION	Improper transportation or storage!
 	<p>Improper transportation or storage may result in personal injury or property damage.</p> <ul style="list-style-type: none"> Use personal protective equipment for all work with packaging material. Handle the packaging of the product and the accessories with care. Package all parts with suitable materials in a shock-resistant manner. Transport and handle the packaging according to the marking (observe attachment points for lifting gear, keep center of gravity and orientation such as vertical, do not throw, etc.). Use proper, functional transportation equipment and hoists. Observe the permissible transport parameters and storage parameters. Do not store the product and accessories exposed to direct sunlight and heat sources.
NOTICE	Handling packaging materials!
	<p>The improper disposal of packaging materials may result in environmental damage.</p> <ul style="list-style-type: none"> Dispose of the packaging material in accordance with the applicable legal requirements and regulations of the country of use.

5.1 Transport

Check the product after transport and after removing the packaging material for possible transit damage. If you detect any such damage, immediately notify the carrier company and the manufacturer or one of its agents.

Transport the product as follows:

- Only transport the product in its original packaging.
- Handle the packaging and the product carefully.
- Observe the transport weight information and markings on the packaging.
- Secure the packaging and the product against slipping and falling during transport.





5.2 Storage


Store the product and accessories as follows:

- Observe the storage parameters in section “4.2 Storage and transport parameters” on page 19.
- Store in a closed, dry and frost-free room.
- Store away from external weather conditions, direct sunlight and heat sources.
- Secure against falling over and vibrations at the storage location.

6. Installation


6.1 Warning notices

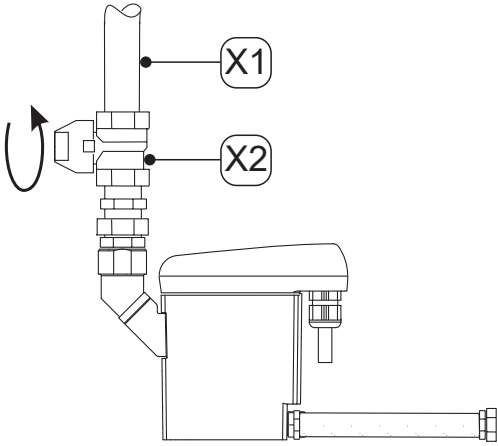
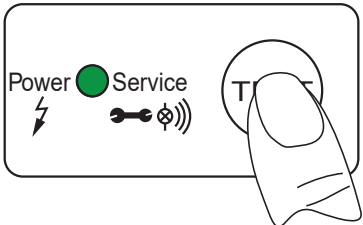
DANGER	Pressurized system!
	<p>The risk of death or severe injuries exists in case of contact with fast or sudden exiting fluids or due to bursting system parts.</p>
	<ul style="list-style-type: none"> • Before starting work, bleed the pressurized system and secure it against unintentional pressurization. • A safe area must be set up around the work area during all assembly, installation, maintenance and repair work. • Mount all pipelines free of mechanical tension. • Securely pipe the inlet and drain lines. • Before pressurization, check all system connections for leak tightness and retighten them if necessary. • Pressurize the system slowly. • Avoid pressure surges and high pressure differentials.
DANGER	Electrical voltage!
	<p>Contact with electrically live components may result in fatal or serious injury as well as functional and operational disturbances or material damage.</p>
	<ul style="list-style-type: none"> • Only complete installation, maintenance and repair work on products and accessories for which the power has been shut down, and secure them against unintentional restart. • A safe area must be set up around the work area during all installation, maintenance and repair work. • Comply with all regionally applicable regulations and requirements during installation. • The power supply must have a disconnect device that is easily accessible and close to the product. This disconnect device must disconnect all live cables. • Connect the protective conductor (earthing) according to regulations.
DANGER	Use of incorrect replacement element, accessories or materials!
	<p>The use of incorrect spare parts, accessories or materials, as well as auxiliary and operating materials, may pose a mortal danger or the danger of severe injuries. Functional and operational disruptions may occur, as well as material damage.</p>
	<ul style="list-style-type: none"> • Only use undamaged original parts, auxiliary and operating materials specified by the manufacturer in carrying out all work. • Only use materials permitted for the specific purpose and suitable tools in proper condition. • Only use pipelines free from dirt, damage and corrosion.
WARNING	Insufficient qualification!
	<p>If personnel have insufficient qualifications, this may result in accidents, personal injury and property damage as well as operating disruptions while working on the product or its accessories.</p>
	<ul style="list-style-type: none"> • All work on the product and accessories must be carried out exclusively by skilled technical personnel specialized in pressure equipment and systems.

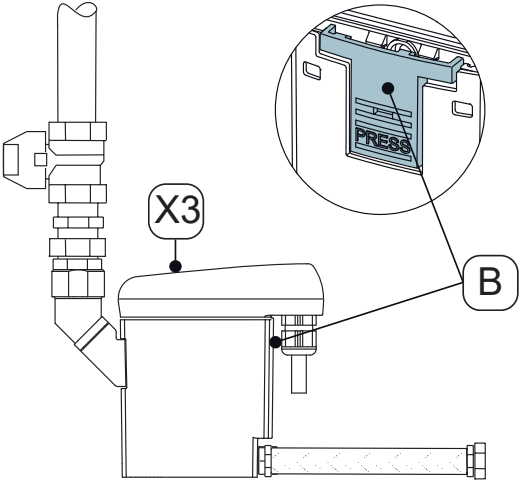
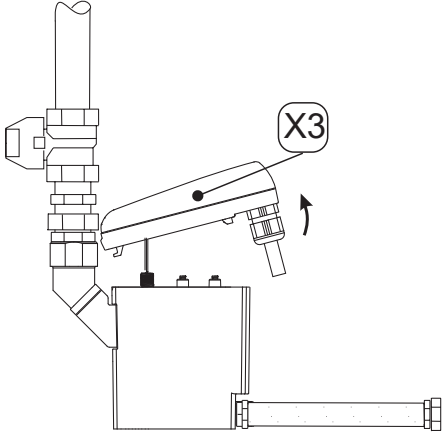
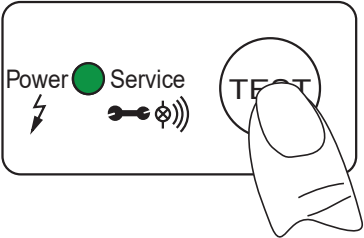
WARNING	Ingress of moisture or foreign objects!
	<p>Removing components or opening the product can result in water or foreign objects entering the opened product. The ingress of water or foreign objects can result in accidents, personal injury and property damage, and problems during operation.</p> <ul style="list-style-type: none"> • Protect the product from splash water and moisture. • Open the product and remove components exclusively in a dry place. • Do not introduce any foreign objects into the product's openings. • Keep all contact surfaces and openings free of impurities and moisture.

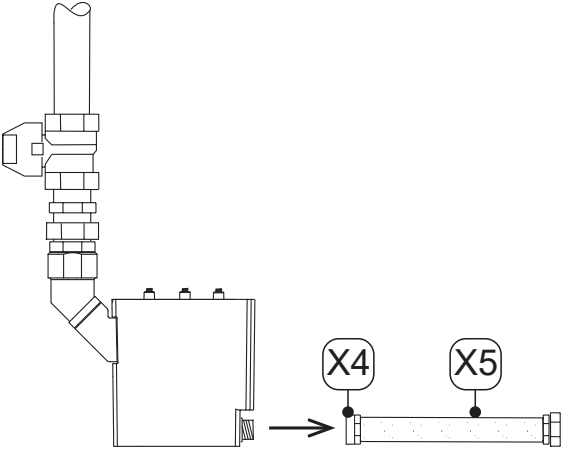
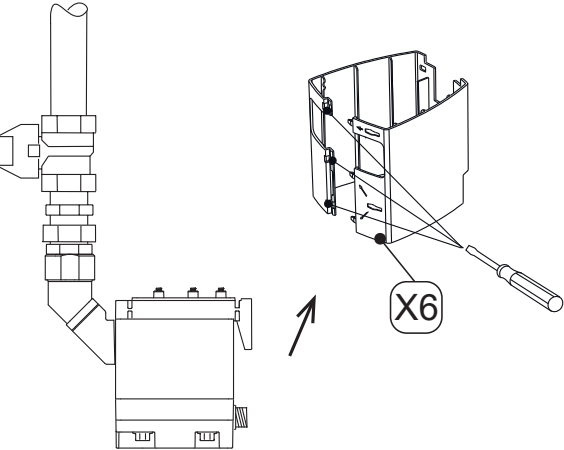
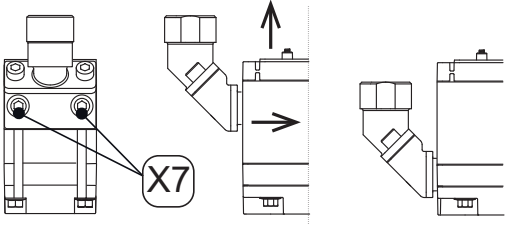
6.2 Installation work

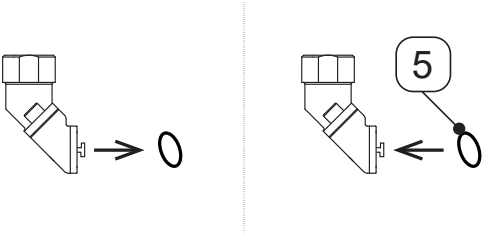
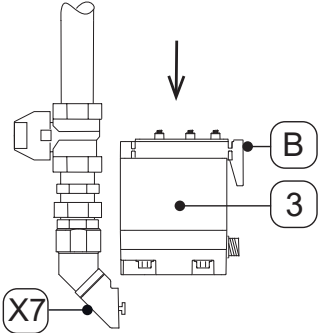
The following prerequisites must be met before carrying out assembly work, and all preparation work must be completed first.

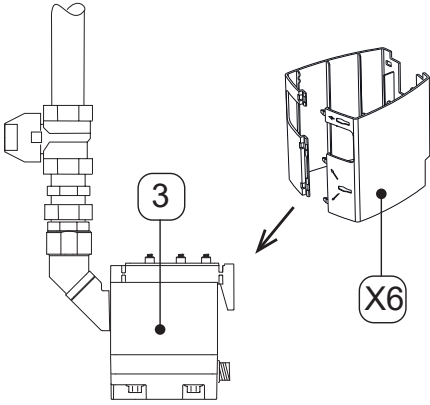
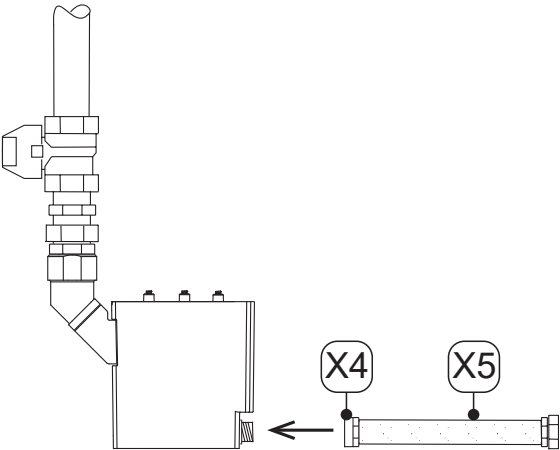
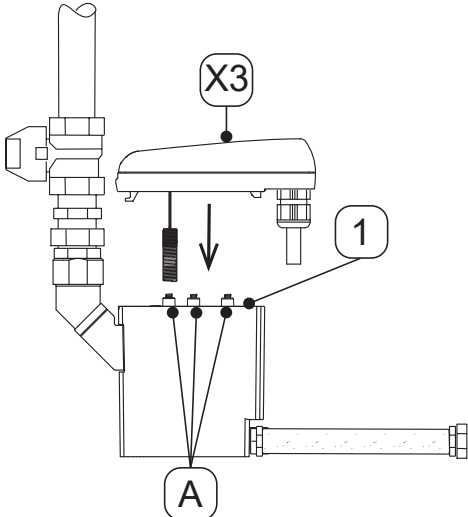
Preconditions		
Tool	Material	Protective equipment
<ul style="list-style-type: none"> • Slotted screwdriver 0.09 in (2.5 mm) • Torx screwdriver – T15 • Open-end wrench or adjustable wrench 	<ul style="list-style-type: none"> • Sealants • Lubricant for greasing the O-rings • Mild cleaning agent • Cotton cloth or disposable cloth 	<p>To be worn at all times:</p> 

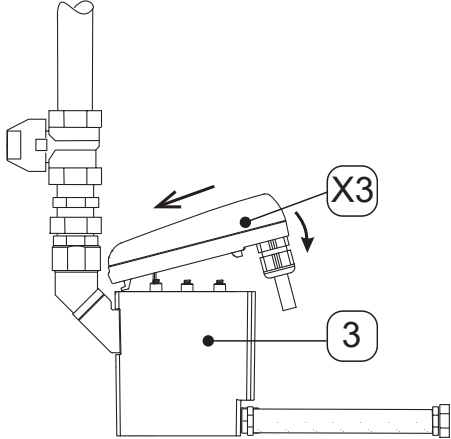
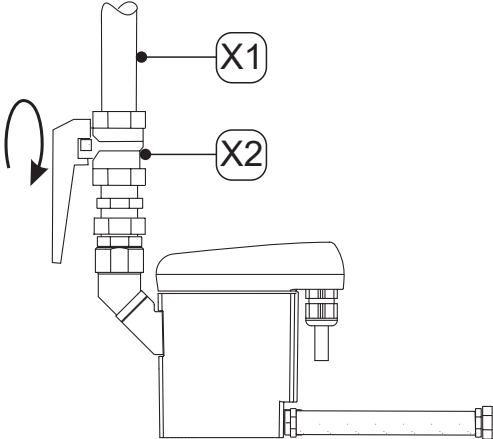
Replacement work	
Image	Description / explanation
	<ol style="list-style-type: none"> 1. Shut off the condensate supply through the condensate inlet line [X1] (e.g., close the recommended shut-off valve [X2]).
	<ol style="list-style-type: none"> 2. Briefly press the TEST button several times. <ul style="list-style-type: none"> → The pressure in the BEKOMAT® is reduced. → The remaining condensate in the BEKOMAT® is drained off.

Replacement work	
Image	Description / explanation
	<p>3. Release the control unit [X3] by pressing the latching tab [B].</p>
	<p>4. Remove the control unit [X3].</p>
	<p>5. Press the TEST button on the control unit [X3] and hold it down for at least 5 seconds. → The green POWER LED flashes</p> <p>6. As soon as the green POWER LED lights up permanently, stop pressing the TEST button. → The “service time” counter has now been reset.</p> <p>7. Carefully put the control unit [X3] aside for the time being.</p>

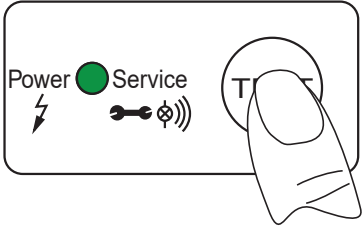
Replacement work	
Image	Description / explanation
	<p>8. Remove the barbed hose fitting [X4] with the hose [X5].</p>
	<p>9. Use a screwdriver to remove the designer case [X6] (if any).</p>
	<p>10. Remove the Service-Unit from the pipework at the condensate inlet by unscrewing the socket head cap screws [X7].</p> <p>11. First pull the Service-Unit towards you as shown and then lift it up and out of the rail.</p> <p>12. Dispose of the old Service-Unit properly. For more information, see "7. Disposal" on page 29.</p>

Replacement work	
Image	Description / explanation
	<p>13. Remove the old O-ring from the condensate inlet.</p> <p>14. Grease and insert the new O-ring [5]. Use a lubricant suitable for the application.</p> <p>15. Properly dispose of the old O-ring. For more information, see “7. Disposal” on page 29.</p>
	<p>16. Check whether the new Service-Unit [3] matches the control unit [X3]:</p> <ul style="list-style-type: none"> → Type designation → The color of the latching tab [B] is identical to the color of the control unit. <p>17. Slide the new Service-Unit [3] into the rail and install it securely at the condensate inlet.</p> <p>18. Tighten the socket head cap screws [X7] with a torque of 2.95 to 5.9 ft-lb (4 to 8 Nm).</p>

Replacement work	
Image	Description / explanation
	<p>19. Install the designer case [X6] (if any) around the new Service-Unit [3].</p>
	<p>20. Install the barbed hose fitting [X4] with the hose [X5].</p>
	<p>21. Check that the sealing mat [1] with the contact springs [A] is clean, dry, and free of foreign objects.</p> <p>22. Insert the sensor of the control unit [X3] into the sensor tube opening.</p>

Replacement work	
Image	Description / explanation
	<p>23. Insert the hook of the control unit [X3].</p> <p>24. Press the control unit [X3] onto the Service-Unit [3] so that it locks into place.</p>
	<p>25. Perform a leak test on all screw connections.</p> <p>26. Carefully open the condensate supply through the condensate inlet lines [X1] (e.g., open the recommended shut-off valve [X2]).</p>

6.2.1 Function test

Image	Description / explanation
	<p>Press the TEST button for 2 to 5 seconds.</p> <ul style="list-style-type: none">→ The green power LED is on→ The valve opens and condensate is discharged

6.2.2 Visual inspection

During the visual inspection of the product, check all components for mechanical damage and corrosion. Replace damaged components immediately.


6.2.3 Leakage test


The leak test is a non-destructive testing method and is used to prove the leak tightness of vacuum and overpressurized systems. The leak test can be completed in different ways. The manufacturer does not recommend any specific method over another. The selection and determination of the test procedure is the responsibility of the company operating the pressurized system and must be carried out in conformity with the applicable standards and guidelines (e.g., DIN EN 1779).

7. Disposal

The product and accessories must be properly disposed of at the end of their useful life, e.g., by a specialized company. Materials such as glass, plastic, and some chemical compounds can be recycled or reused.

7.1 Warning notices

NOTICE	Improper disposal!
	<p>Improper disposal of components and assemblies, operating, auxiliary materials and cleaning agents may cause environmental hazards.</p> <ul style="list-style-type: none"> • All components, assemblies, operating, auxiliary materials and cleaning agents must be disposed of appropriately and according to regional statutory specifications and provisions. • Dispose of electrical and electronic components through a specialized disposal company or return them to the manufacturer. • In case of doubt, consult a regional disposal company before disposal.

INFORMATION	Disposal of electrical and electronic products
	<p>Electrical and electronic products (EEE) contain materials, components and substances that can be hazardous and harmful to human health and the environment if the waste from electrical and electronic products (WEEE) is not properly disposed of.</p> <p>Electrical and electronic products are marked with the crossed-out waste container. The crossed-out garbage bin symbolizes that electrical and electronic products must be collected separately and not disposed of together with unsorted household waste.</p> <p>For more information regarding regionally applicable regulations and requirements for the recycling of electrical and electronic products, contact regional waste disposal companies or the appropriate authorities.</p>

7.2 Disposal of operating fluids and auxiliary materials

Operating material / auxiliary material	EU waste code
Adsorbent materials, filter materials, wiping cloths and protective clothing - contaminated with oils or other hazardous substances	15 02 02
Adsorbent materials, filter materials, cleaning wipes and protective clothing, unless classified under 15 02 02	15 02 03
Packaging - Paper and cardboard	15 01 01
Packaging - Plastics	15 01 02
Waste oils - mineral	13 02 05
Waste oils - synthetic	13 02 06

7.3 Disposal of components

The following requirements must be met before disposal:

Preconditions	
1.	The product and accessories have been taken out of service and dismantled.
2.	The product and the accessories are cleaned and freed from existing media residues.

Components	EU waste code
Electrical and electronic equipment - other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	20 01 36
Plastics	20 01 39
Metals	20 01 40

BEKO TECHNOLOGIES GmbH

Im Taubental 7
D - 41468 Neuss
Tel. +49 2131 988 0
Fax +49 2131 988 900
info@beko-technologies.com
service-eu@beko-technologies.com

DE**BEKO TECHNOLOGIES LTD.**

Unit 11-12 Moons Park
Burnt Meadow Road
North Moons Moat
Redditch, Worcs, B98 9PA
Tel. +44 1527 575 778
info@beko-technologies.co.uk

GB**BEKO TECHNOLOGIES S.à.r.l.**

Zone Industrielle
1 Rue des Frères Rémy
F - 57200 Sarreguemines
Tél. +33 387 283 800
info@beko-technologies.fr
service@beko-technologies.fr

FR**BEKO TECHNOLOGIES B.V.**

Veenen 12
NL - 4703 RB Roosendaal
Tel. +31 165 320 300
benelux@beko-technologies.com
service-bnl@beko-technologies.com

NL**BEKO TECHNOLOGIES
(Shanghai) Co. Ltd.**

Rm.715 Building C, VANTONE Center
No.333 Suhong Rd.Minhang District
201106 Shanghai
Tel. +86 (21) 50815885
info.cn@beko-technologies.cn
service1@beko.cn

CN**BEKO TECHNOLOGIES s.r.o.**

Na Pankraci 58
CZ - 140 00 Praha 4
Tel. +420 24 14 14 717 /
+420 24 14 09 333
info@beko-technologies.cz

CZ**BEKO Tecnológica España S.L.**

Torruella i Urpina 37-42, nave 6
E - 08758 Cervelló
Tel. +34 93 632 76 68
Mobil +34 610 780 639
info.es@beko-technologies.es

ES**BEKO TECHNOLOGIES LIMITED**

Room 2608B, Skyline Tower,
No. 39 Wang Kwong Road
Kwoloon Bay Kwoloon, Hong Kong
Tel. +852 2321 0192
Raymond.Low@beko-technologies.com

HK**BEKO TECHNOLOGIES INDIA Pvt. Ltd.**

Plot No.43/1 CIEEP Gandhi Nagar
Balanagar Hyderabad
IN - 500 037
Tel. +91 40 23080275 /
+91 40 23081107
Madhusudan.Masur@bekoindia.com
service@bekoindia.com

IN**BEKO TECHNOLOGIES S.r.l**

Via Peano 86/88
I - 10040 Leini (TO)
Tel. +39 011 4500 576
Fax +39 0114 500 578
info.it@beko-technologies.com
service.it@beko-technologies.com

IT**BEKO TECHNOLOGIES K.K**

KEIHIN THINK Building 8 Floor
1-1 Minamiwatarida-machi
Kawasaki-ku, Kawasaki-shi
JP - 210-0855
Tel. +81 44 328 76 01
info@beko-technologies.jp

JP**BEKO TECHNOLOGIES Sp. z o.o.**

ul. Pańska 73
PL - 00-834 Warszawa
Tel. +48 22 314 75 40
info.pl@beko-technologies.pl

PL**BEKO TECHNOLOGIES S. de R.L. de C.**

BEKO Technologies, S de R.L. de C.V.
Blvd. Vito Alessio Robles 4602 Bodega 10
Zona Industrial
Saltillo, Coahuila, 25107
Mexico
Tel. +52(844) 218-1979
informacion@beko-technologies.com

MX**BEKO TECHNOLOGIES CORP.**

900 Great Southwest Pkwy SW
US - Atlanta, GA 30336
Tel. +1 404 924-6900
Fax +1 (404) 629-6666
beko@bekousa.com

US