Operating instructions (original)
Material lock ECO-LINE

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1 Product and manufacturer

1.1 Product

The following product is described in these operating instructions:

ECO-LINE material lock.

1.2 Manufacturer

Name and address	deconta GmbH Im Geer 20 46419 Isselburg
Telephone	02874/9156-0
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Internet	www.deconta.com

1.3 Change index

date	Version	Amendment	Responsible
07.11.2023	2	Complete revision	Thomas Boland
14.04.2025	3	Versions with roller shutters added	Thomas Boland

2 About these operating instructions

To ensure proper and safe use of the airlock, follow the descriptions and recommended actions in these operating instructions.

Keep these operating instructions for future reference until the airlock has been disposed of.

2.1 Purpose

These operating instructions contain information on the safe, trouble-free and economical use of the airlock.

This information is intended for persons who carry out tasks with or in connection with the airlock.

2.2 Availability

The operator shall make these operating instructions or extracts thereof available to persons who carry out tasks with or in connection with the interlock.

The operator must keep these operating instructions or extracts thereof in the immediate vicinity of the lock.

If the lock is handed over to another person, the operator will pass these operating instructions on to that person.

2.3 Warnings

These operating instructions may contain warnings that warn of residual dangers.

The categorisation of the warnings is based on the severity of the damage that can occur if the warnings are ignored and the recommended actions are not followed.

2.3.1 Signal words and signal colours

Warnings are introduced with one of the following signal words and marked with a corresponding signal colour.

Signal word	Meaning	Signal colour
DANGER	Consequence of non-compliance: Death or serious injury.	⚠ GEFAHR
WARNING	Consequence of non-compliance: Death or very serious injuries possible.	⚠ WARNUNG
CAUTION	Consequence of non-compliance: Serious or minor injuries possible.	⚠ VORSICHT
NOTE	Consequence of non-compliance: Material damage or environmental damage possible.	HINWEIS
SAFE HANDLING	Implement the following instructions.	-

2.3.2 Structure

Warnings are structured according to the SAFE method:

S	Signal word (DANGER; WARNING, CAUTION or NOTICE)
A	Type and source of danger Description of the hazard and the cause of the hazard
F	Consequence Description of the possible consequences of the hazard for humans, animals and the environment
E	Escape Recommendations on how hazards can be avoided

2.4 Symbols

The following symbols are used in these operating instructions.

2.4.1 Warning signs

The warning sign is a safety sign that warns of a risk or danger.

The following table provides an overview of the warning signs used and their meaning.

Symbol	Meaning	Symbol	Meaning
	General warning sign		

2.4.2 Instruction sign

The instruction sign is a safety sign that prescribes certain behaviour.

The following table provides an overview of the instruction symbols used and their meaning.

Symbol	Meaning	Symbol	Meaning
	Wear safety shoes		Use protective clothing

3 Description of the

This section contains information on understanding the airlock.

3.1 General description

General description of the product

The lock was designed and built by the company deconta GmbH, Im Geer 20, 46419 Isselburg.

When carrying out remediation work in enclosed spaces, it is important to ensure that pollutants do not leave the remediation area in an uncontrolled manner and thus pose a risk to people and the environment.
For this reason, remediation areas are separated from the pollutant-free areas and kept under dynamic negative pressure using Negative pressure units.
The ECO-Line material airlock enables material to be transferred in and out and cleaned off without endangering the environment.
The airlock is designed according to the modular system and can be adapted to almost any requirement. Connecting identical roof and floor elements also allow the existing system to be extended at a later date and existing parts to continue to be used. An extension with any number of chambers is possible at any time.

3.2 Scope of delivery

The scope of delivery of the lock includes the following items:

- Material lock, number and size of chambers depending on design
- Operating instructions

3.3 Return delivery after termination of a rental

For the protection of our customers and in accordance with the dangerous goods transport regulations, we must insist on the following return delivery conditions:

- As listed above
- Thoroughly cleaned (ready for use)
- Free from any adhesive residue
- Without residual fibre bonding
- Without damage

3.4 Operating modes

3.4.1 Available operating modes

Type of utilisation

The airlock is intended exclusively for use in the following types of utilisation.

Use for other types of utilisation is not in accordance with the intended purpose.

User groups

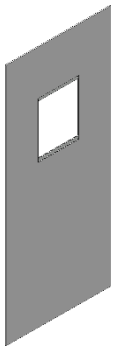
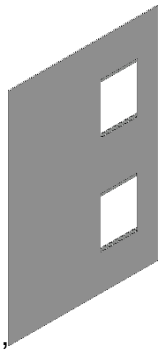
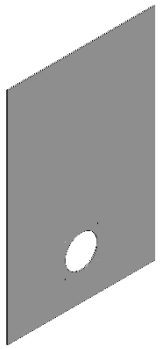
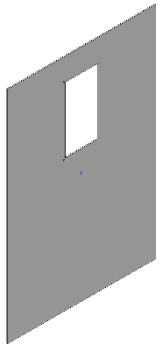
- Commercial users

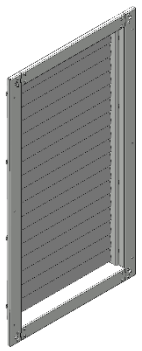
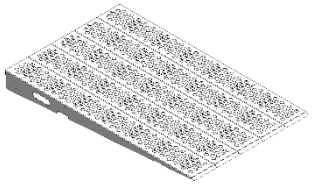
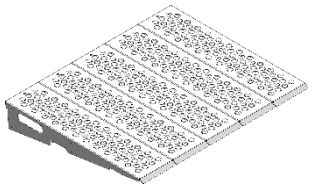
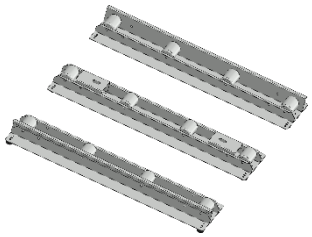
Utilisation environment

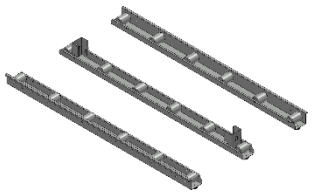
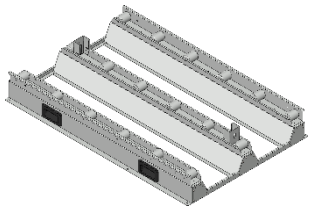
- outdoors
- on roofed areas
- in rooms closed on all sides

3.5 Accessories

The following accessories are optionally available for the ECO-LINE material lock:

Designation	Article no.	Illustration
Wall element with 1x connection	Model 900 BO17030	
	Model 1400 BO17231	
Wall element with 2x connection	Model 900 ---	
	Model 1400 BO17166	
Wall element for MZA 30	Model 900 BO31895	
	Model 1400 BO32099	
Wall element for supply air MZA 30	Model 900 BO31858	
	Model 1400 BO32089	

Supply air flap 305 x 610	BO6714	
Ramp 1400mm long	BO3111	
Ramp 700mm long	BO3111a	
Roller conveyor for gratings	Model 900 BO21598	

Roller conveyor for gratings	Model 1400 BO20986	
Platform for roller conveyor 1.3m long	BO21751	

4 Technical data

4.1 Dimensions model 900

	Length x width x height (mm)
2-chamber	1800 x 1800 x 2230
3-chamber	2700 x 1800 x 2230

4.2 Dimensions model 1400

	Length x width x height (mm)
2-chamber	2800 x 1800 x 2230
3-chamber	4200 x 1800 x 2230

4.3 Weights model 900 with hinged doors

	Weight (kg) without transport device
2-chamber	approx. 300
3-chamber	approx. 430

4.4 Model 1400 weights with hinged doors

	Weight (kg) without transport device
2-chamber	approx. 370
3-chamber	approx. 535

4.5 Weights model 900 with roller shutters

	Weight (kg) without transport device
2-chamber	approx. 380

4.6 Model 1400 weights with roller shutters

	Weight (kg) without transport device
2-chamber	approx. 430

4.7 Water connections

Fresh water connection (roof element) Geka ½"

Wastewater connection (floor element) Geka ¾"

5 Security

This section contains information on the protection of humans, pets, farm animals and the environment.

5.1 Intended use

The airlock is intended exclusively for the following use:

Intended use

When carrying out remediation work in enclosed spaces, it is important to prevent pollutants from leaving the remediation area in an uncontrolled manner and thus posing a risk to people and the environment.
For this reason, remediation areas are separated from the pollutant-free areas and kept under dynamic negative pressure using Negative pressure units.
The ECO-Line material airlock enables material to be transferred in and out and cleaned off without endangering the environment.

The user must comply with the operating parameters specified in the operating instructions. The airlock may only be used for its intended purpose. Any other use beyond this is not in accordance with the intended use. The user is liable for any resulting damage or injuries of any kind.

5.2 Misapplication

Use of the lock for the following purposes is not permitted:

Reasonably foreseeable misuse

- Any application other than that described in the operating instructions
- Any use of the airlock other than that described under "Intended use" without the written consent of the manufacturer
- Operation outside the technical limits of use
- Unauthorised modifications or conversions and tampering
- Use, installation, operation, maintenance or repair in a manner other than described
- Work carried out by unqualified personnel
- Use of unsuitable or incompatible materials, operating or auxiliary materials or accessories
- Non-compliance with safety and operating instructions, occupational safety and accident prevention regulations or relevant statutory regulations
- Failure to promptly rectify faults that could jeopardise safety
- Use of non-original replacement parts or accessories that are not equivalent in quality and function
- Operating the airlock in a technically unsatisfactory condition, not being aware of safety and hazards and not observing all instructions in the documentation
- Use of the airlock in potentially explosive atmospheres

5.3 Notes on occupational safety

The operator of the lock is responsible for implementing the obligations arising from occupational health and safety. The health and safety regulations of the country in which the lock is used apply.

The obligations include the following points:

- make these operating instructions or extracts available to persons who carry out tasks with or in connection with the airlock
- Provide the applicable documents to these persons
- Instruction of persons with regard to the intended use and misuse
- Instruction of persons with regard to protective devices and supplementary protective devices
- Instruction of persons with regard to residual risks

This list is not exhaustive and does not claim to be complete.

6 Transport

This section contains information on transporting the airlock.

Transport is the relocation of the lock by manual or technical means.

6.1 Loss of warranty claims

The manufacturer's warranty is void in the following cases:

- In the event of modifications to the lock that have not been agreed with the manufacturer
- If the transport is not carried out properly

6.2 Transport

6.2.1 Transport space

The airlock is transported from one location to another.

6.2.2 Legislation

The lock is transported in accordance with the legal regulations of the country in which the lock is transported.

6.2.3 Qualification of staff

Persons transporting the lock must fulfil the following requirements:

Person	Required qualification
Freight forwarder	Completed training in transport and experience in transport
Logistician	Completed training and experience in transport

6.2.4 Warning of residual risks

Risk of crushing: Wear safety shoes to protect limbs from being run over.

6.2.5 Means of transport

A means of transport that fulfils the following requirements is needed for safe transport:

- The load-bearing capacity must be dimensioned so that the mass of the airlock can be safely accommodated.
- The size of the transport surface must be dimensioned so that the airlock can be placed safely on the transport surface without falling.

The lock may fall down due to unintentional change of position when loading and unloading onto/from a means of transport.

7 Assembly

This section contains information on the safe installation of the airlock.

Do not operate the airlock if it is visibly damaged. Contact deconta GmbH immediately.

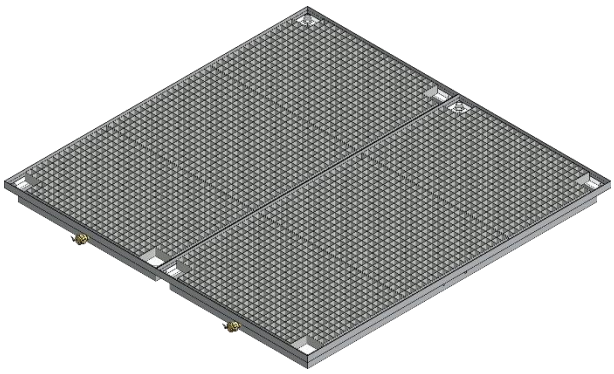
7.1 Preparation

Before the lock is installed:

- Determine the exact location and floor plan
- the surface must be even and clean

7.2 Construction of a 2-chamber airlock with hinged doors

Align the floor elements flat in front of each other.



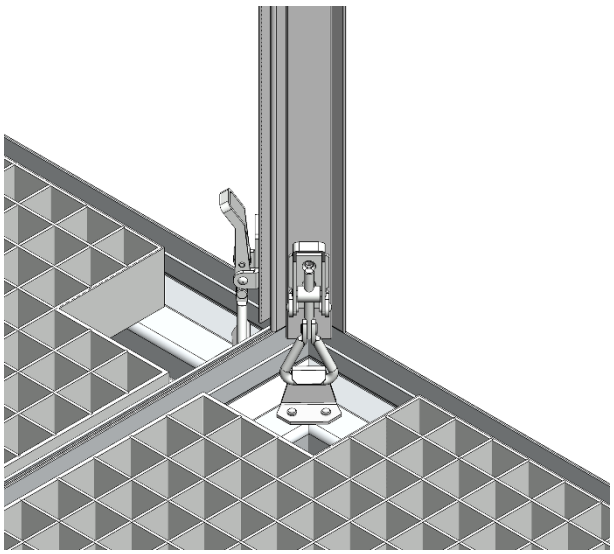
HINWEIS	The Geka waste water connection of the floor elements should have the shortest route to the waste water filter system in order to avoid unnecessary hoses. The mounting brackets of the base tray must be cleaned before inserting the door and side panels!

Load-bearing capacity of the individual floor elements:

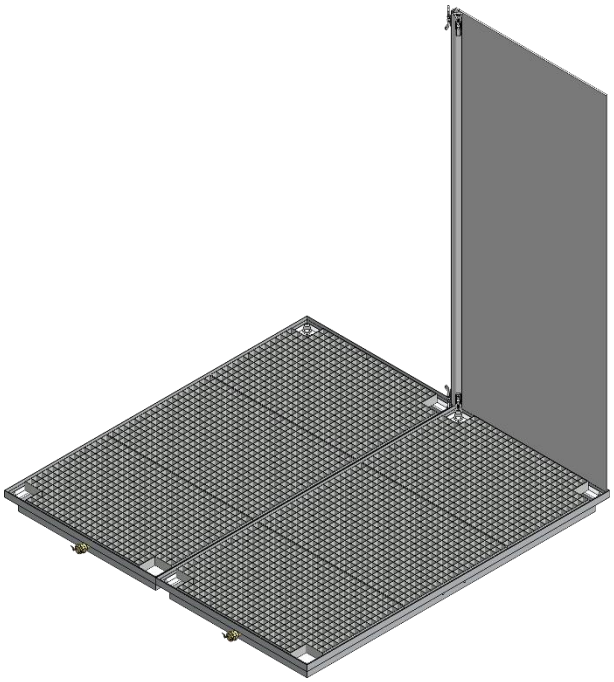
max. 1000 kg

max. 500 kg

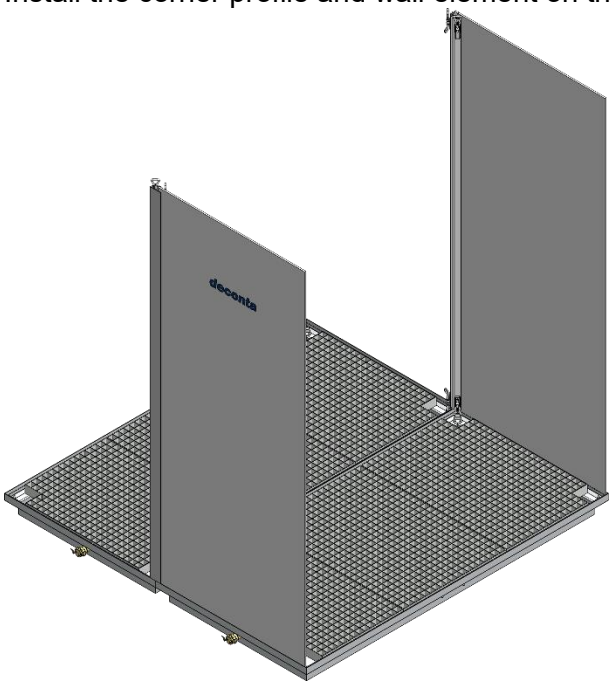
Insert a corner profile at the connecting corner of two floor elements into the mounting brackets and tighten the quick-release fasteners attached to the ends of the corner profiles to the floor elements.



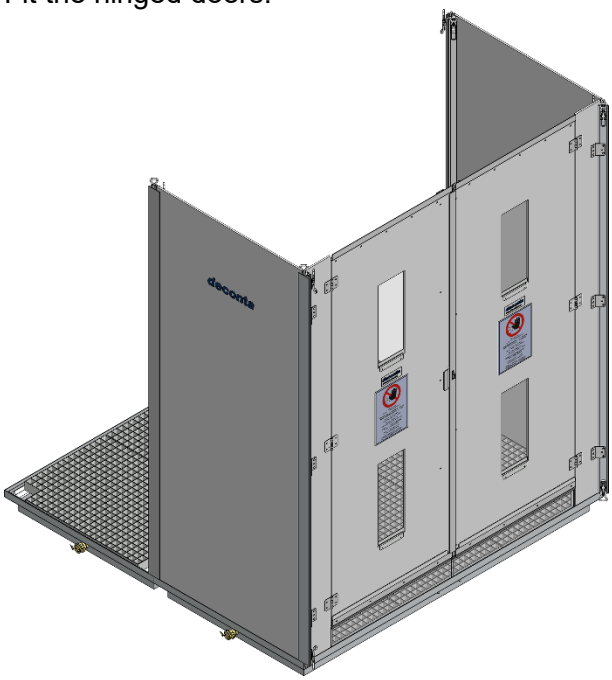
Insert the wall element into the mounting brackets of the floor element and the corner profile.



Install the corner profile and wall element on the opposite side.



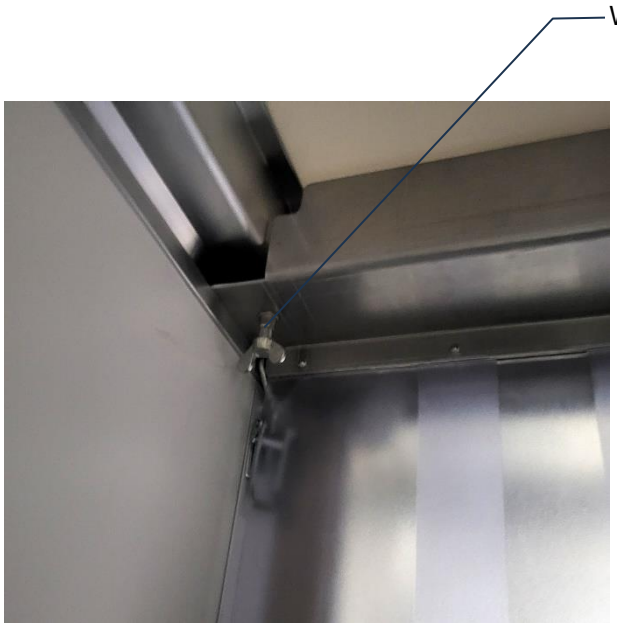
Fit the hinged doors.



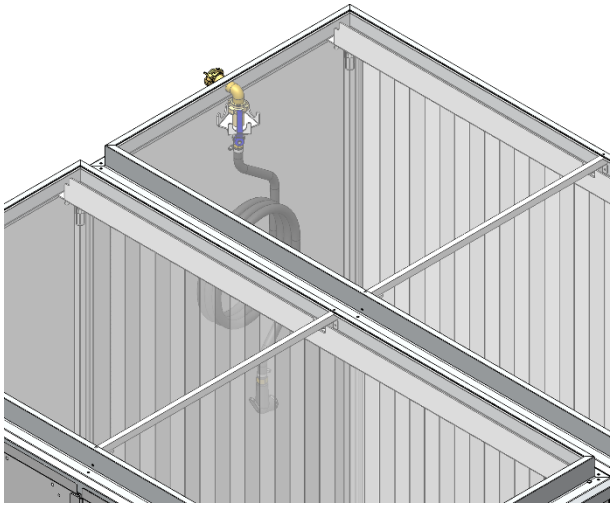
Install the other wall elements and corner profiles.

Place the roof elements on top and fix them in place with the clamp fasteners in each of the 4 corners.

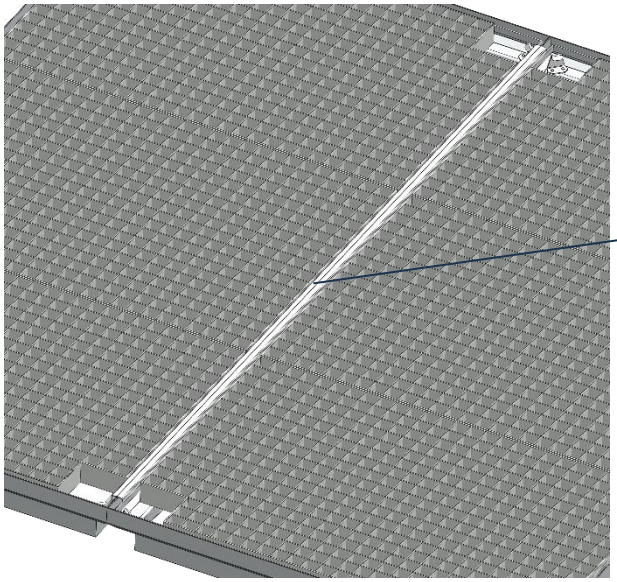
Fit the louvre curtains ("flaps"). These are clamped with wing screws.



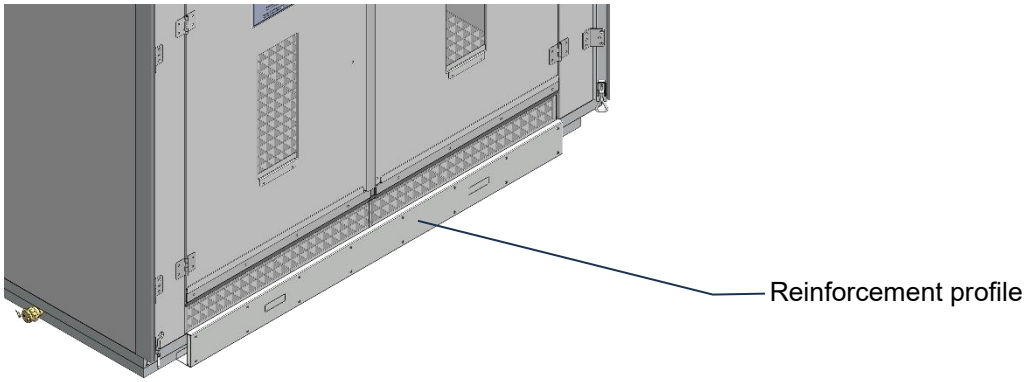
Attach shower device.



Place the connecting profile where two floor elements are adjacent to each other. This prevents water from escaping from the airlock.

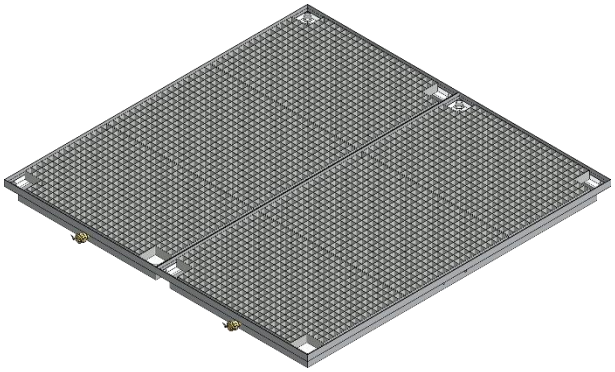


To prevent damage to the outer edges, fit the reinforcement profiles.



7.3 Construction of a 2-chamber airlock with roller shutters

Align the floor elements flat in front of each other.



HINWEIS

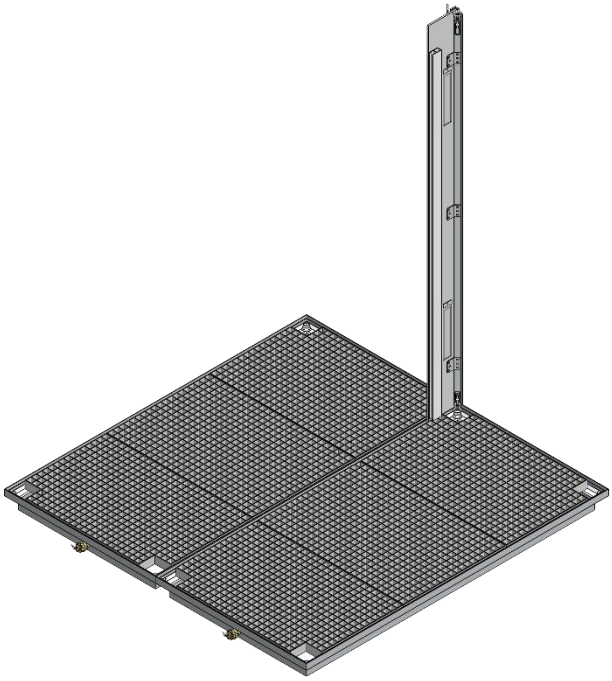
The Geka waste water connection of the floor elements should have the shortest route to the waste water filter system in order to avoid unnecessary hoses.

The mounting brackets of the base tray must be cleaned before inserting the door and side panels!

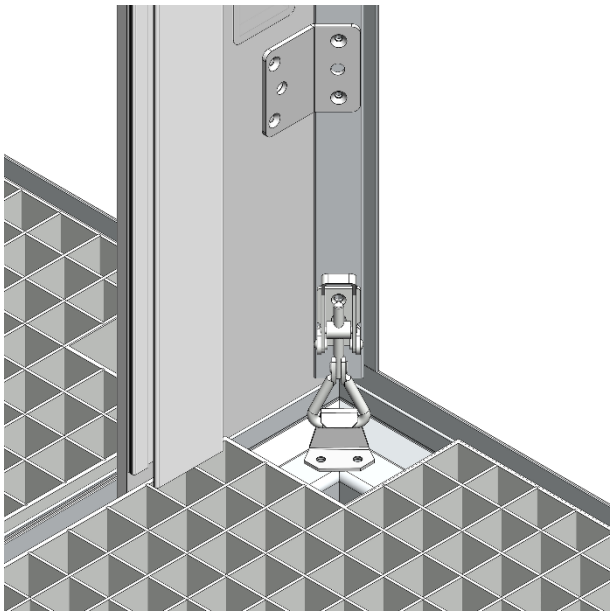
Load-bearing capacity of the individual floor elements:

max. 1000 kg

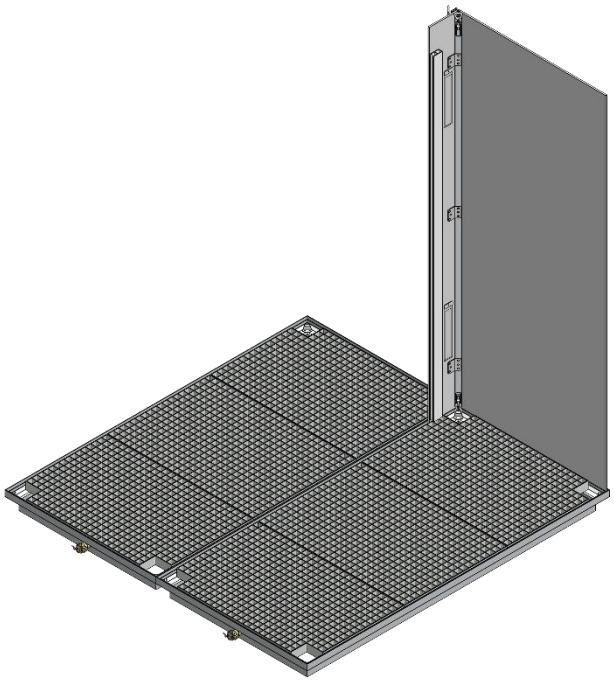
max. 500 kg



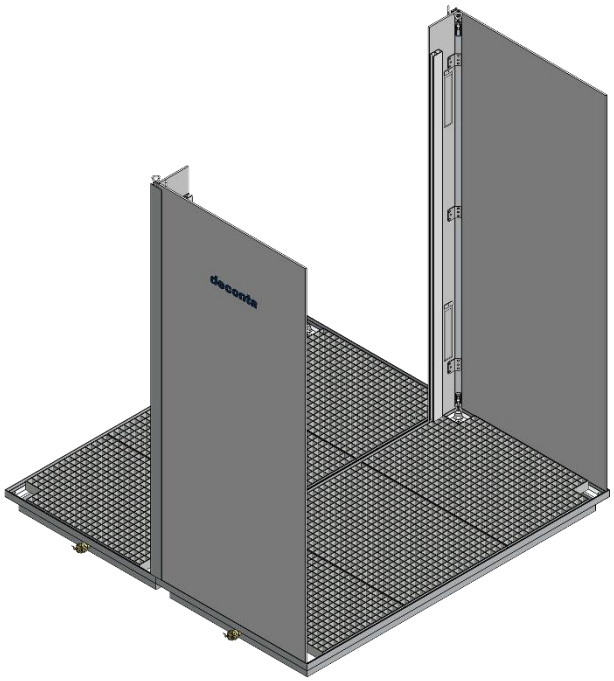
Insert a corner profile with pre-assembled roller shutter guide at the connecting corner of two floor units in the mounting brackets and tighten the quick-release fasteners attached to the ends of the corner profiles with the floor units.



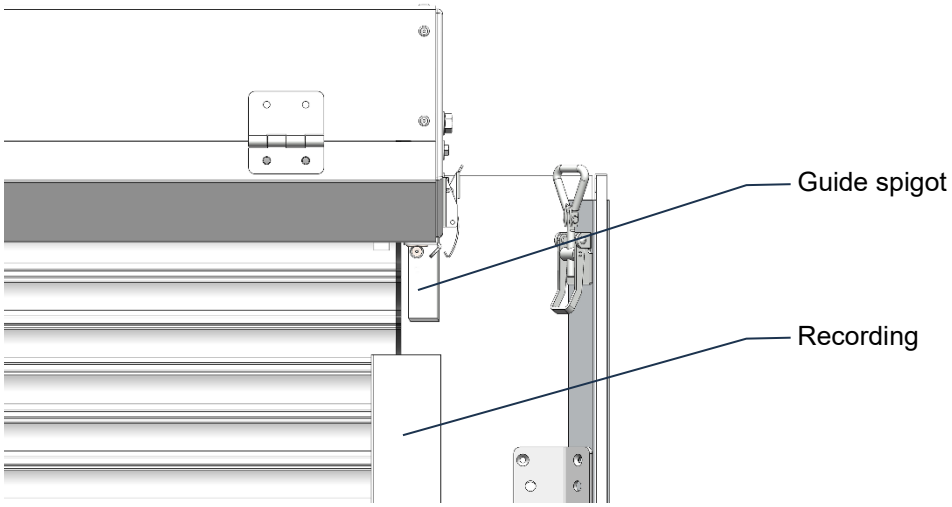
Insert the wall element into the mounting brackets of the floor element and the corner profile.

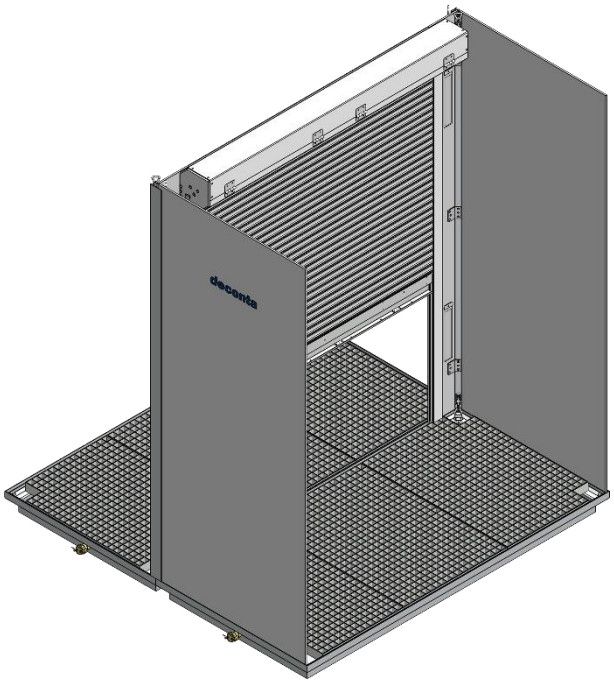


Install corner profile with pre-assembled roller shutter guide and wall element on the opposite side.

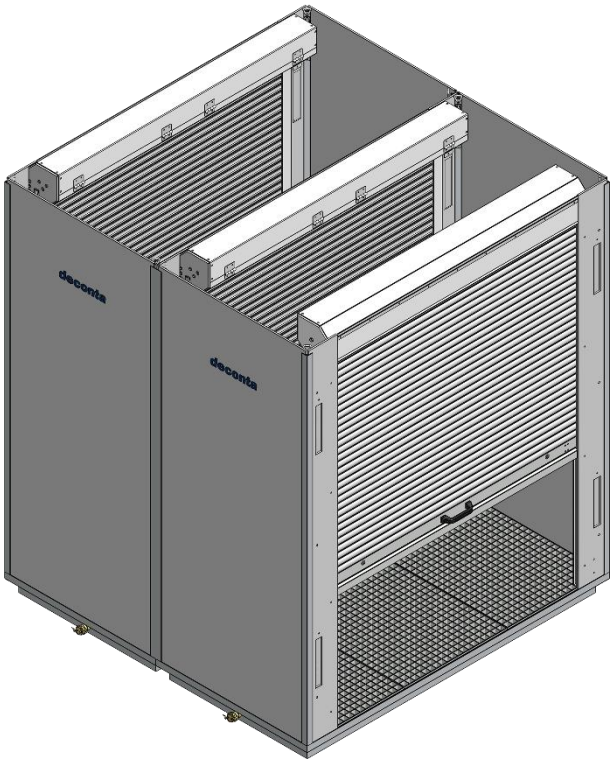


Insert the guide spigot of the roller shutter into the roller shutter guides.



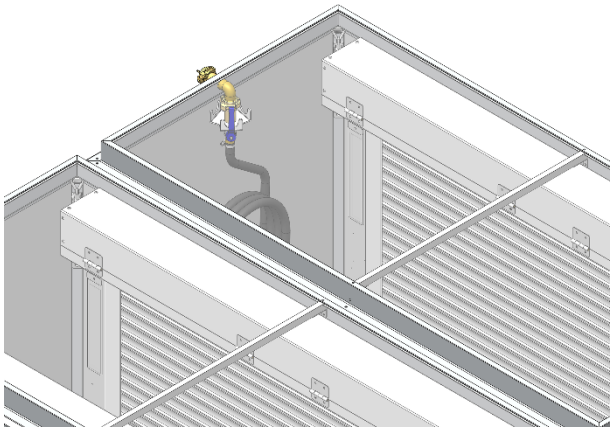


Install the other wall elements and the pre-assembled roller shutter guides.

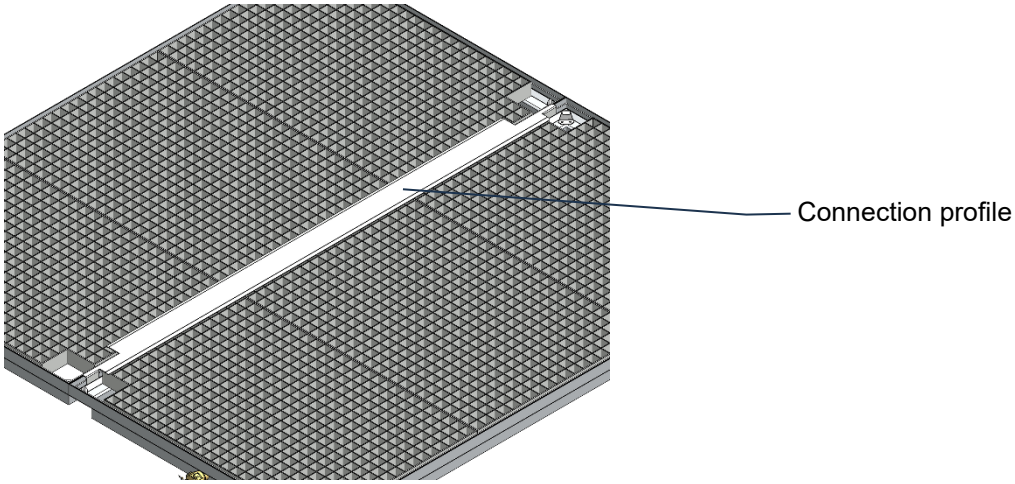


Place the roof elements on top and fix them in place with the clamp fasteners in each of the 4 corners.

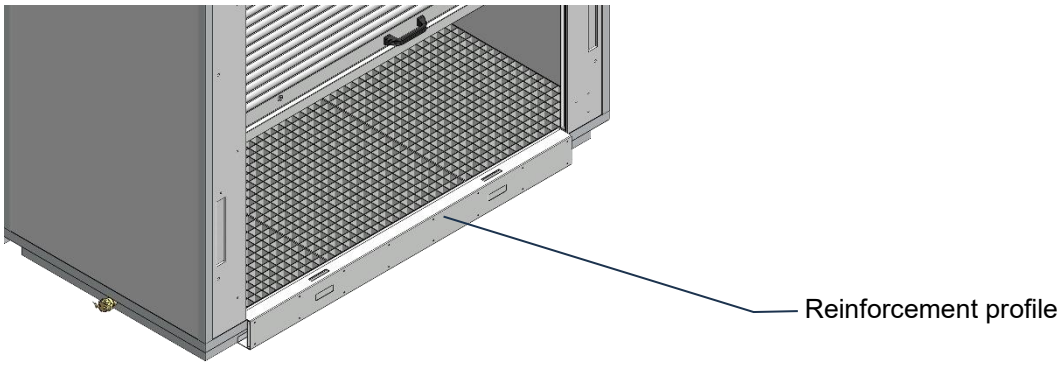
Attach shower device.



Place the connecting profile where two floor elements are adjacent to each other. This prevents water from escaping from the airlock.



To prevent damage to the outer edges, fit the reinforcement profiles.

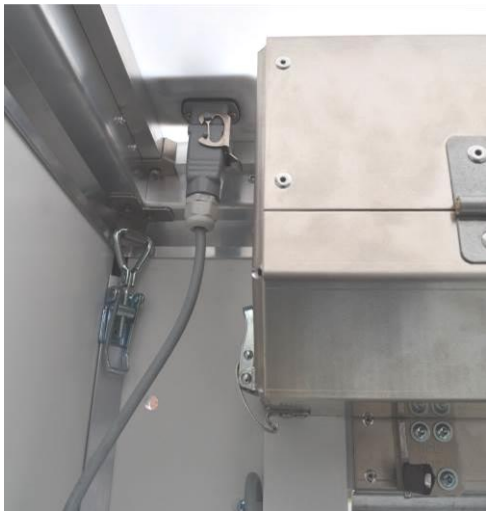


8 Commissioning with positive locking (option)

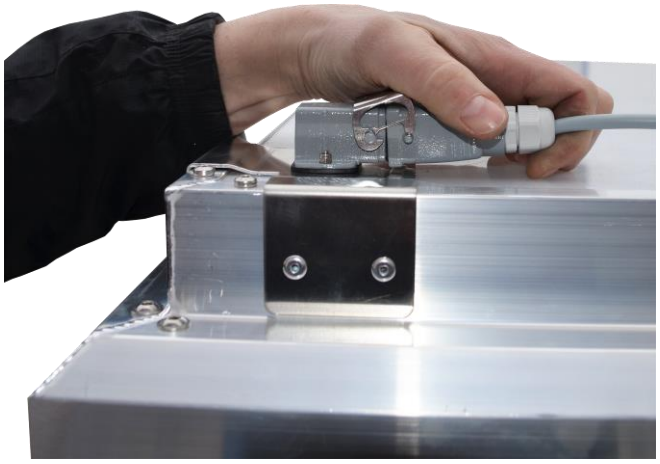
The control of the optional positive locking system ensures that 2 roller shutters can never be opened at the same time.

Set up the airlock as described under point 7.

Connect the cables of the three roller shutter guides to the plugs in the roof element from the inside.



Connect the supplied electrical cables to the three connections on the outside of the roof (where the plugs are also connected from the inside) and connect them to the forced locking control unit. It does not matter in which order the three plugs are connected to the control unit.



Switch the key switch on the front of the control unit to the "I" position. The positive locking control is now active.

The roller shutters are equipped with an emergency stop switch. In an emergency, pressing the button unlocks the locking mechanism of the roller shutters. An acoustic signal sounds.

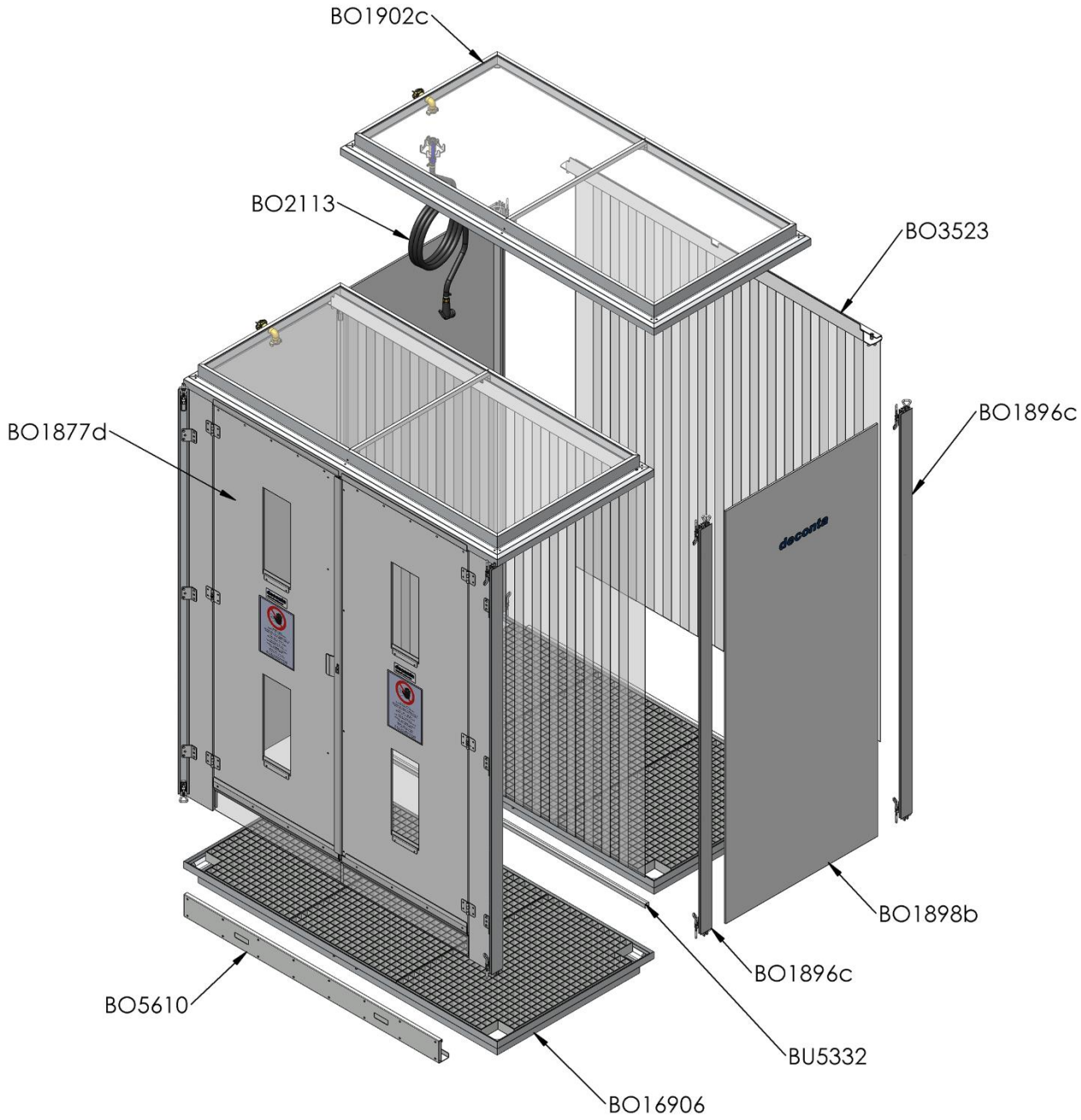
9 Commissioning with MZA 30 (option)

See separate operating instructions for material lock control MZA 30.

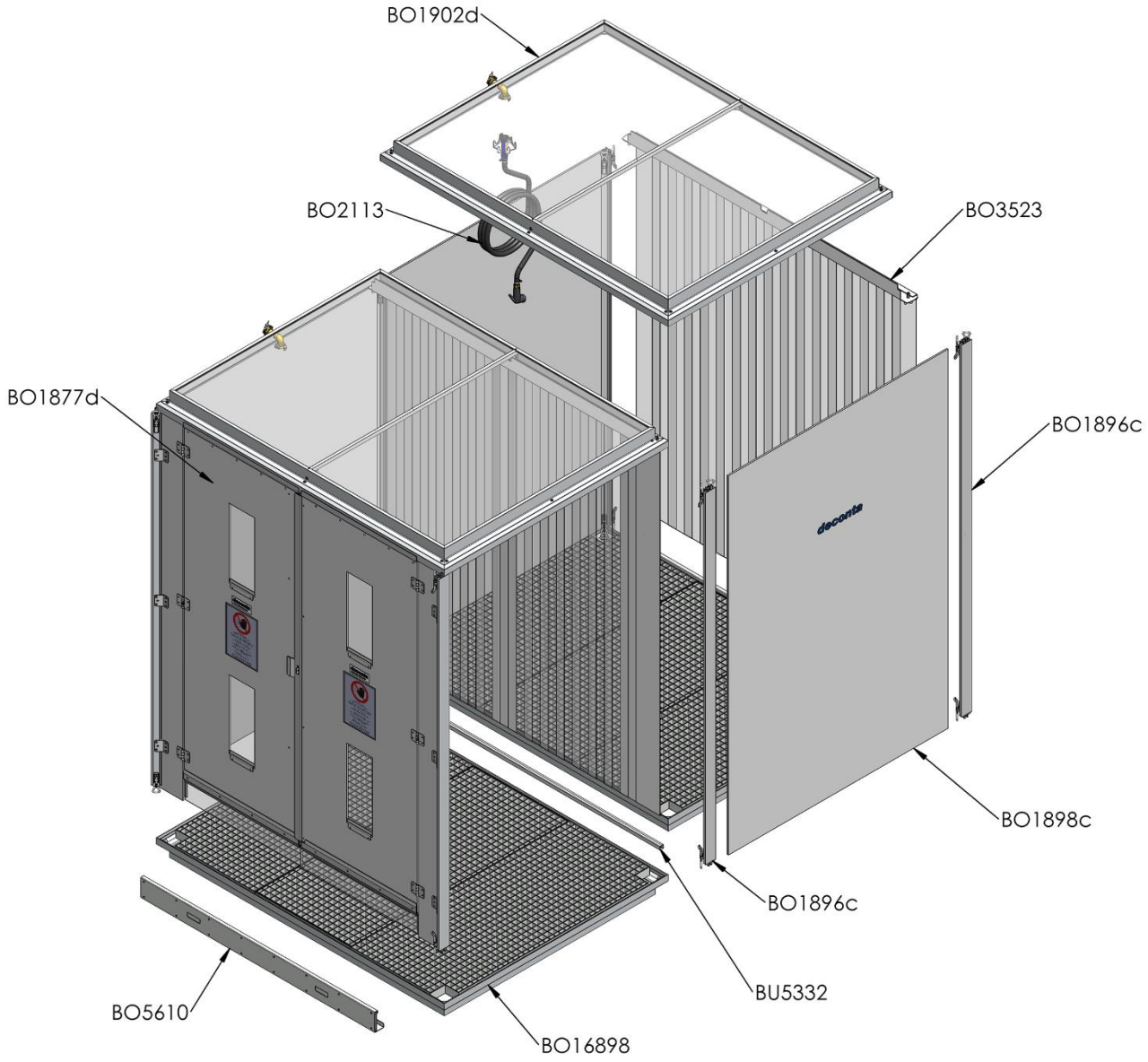
10 Spare parts

Original spare parts should be used to ensure safe, trouble-free and economical use of the airlocks.

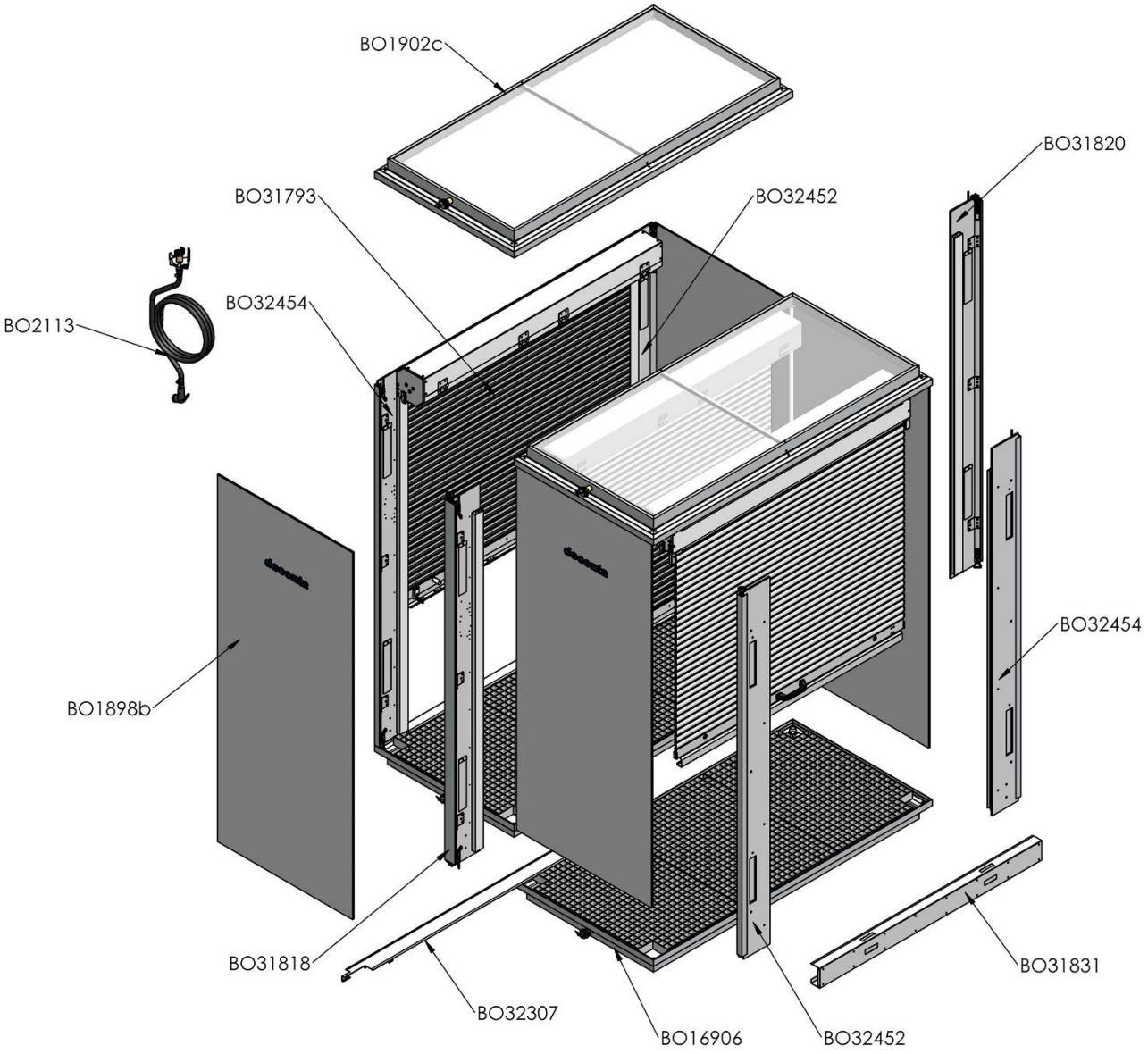
10.1 Model 900 with double wing door



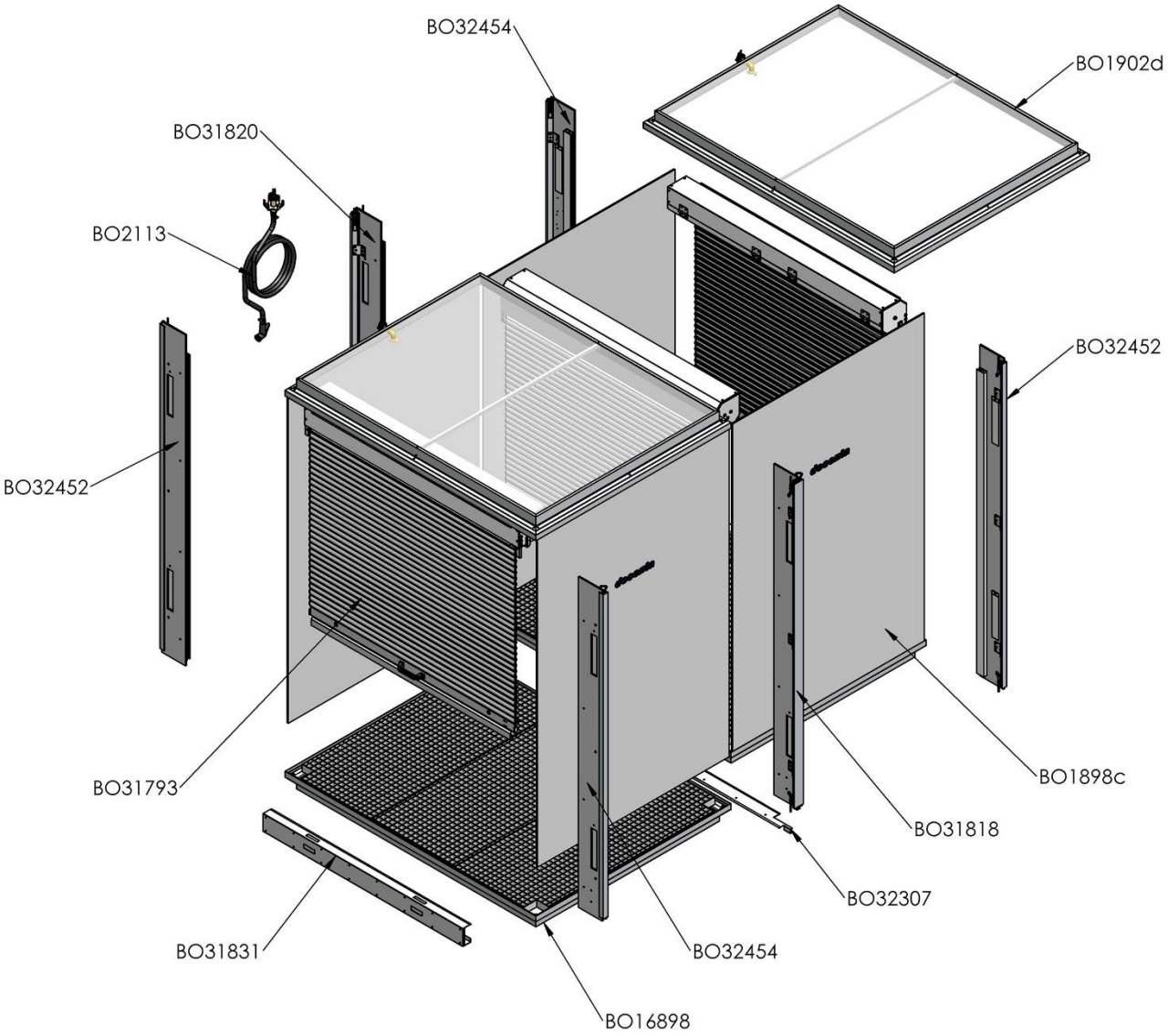
10.2 Model 1400 with double door



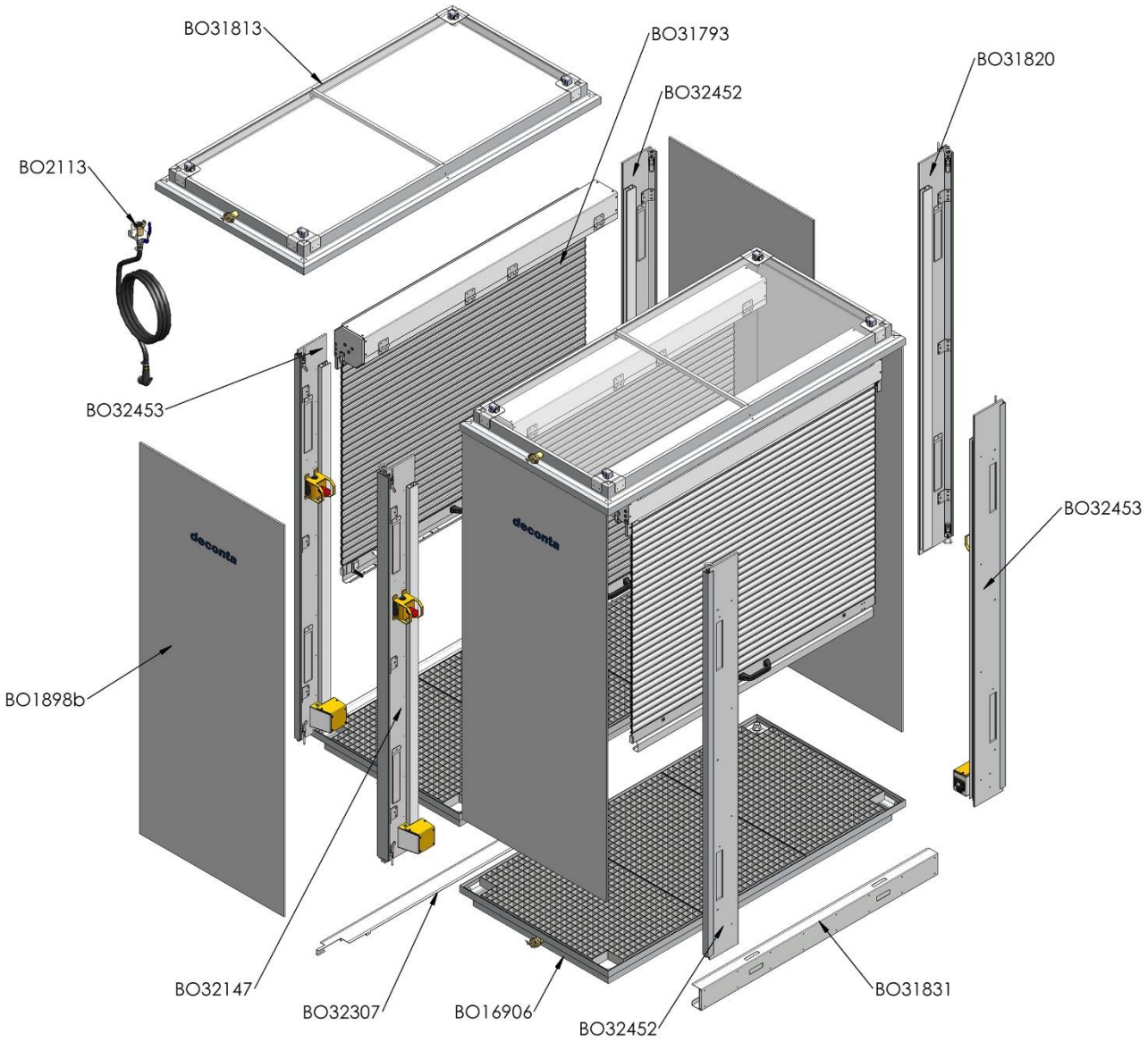
10.3 Model 900 with roller shutter



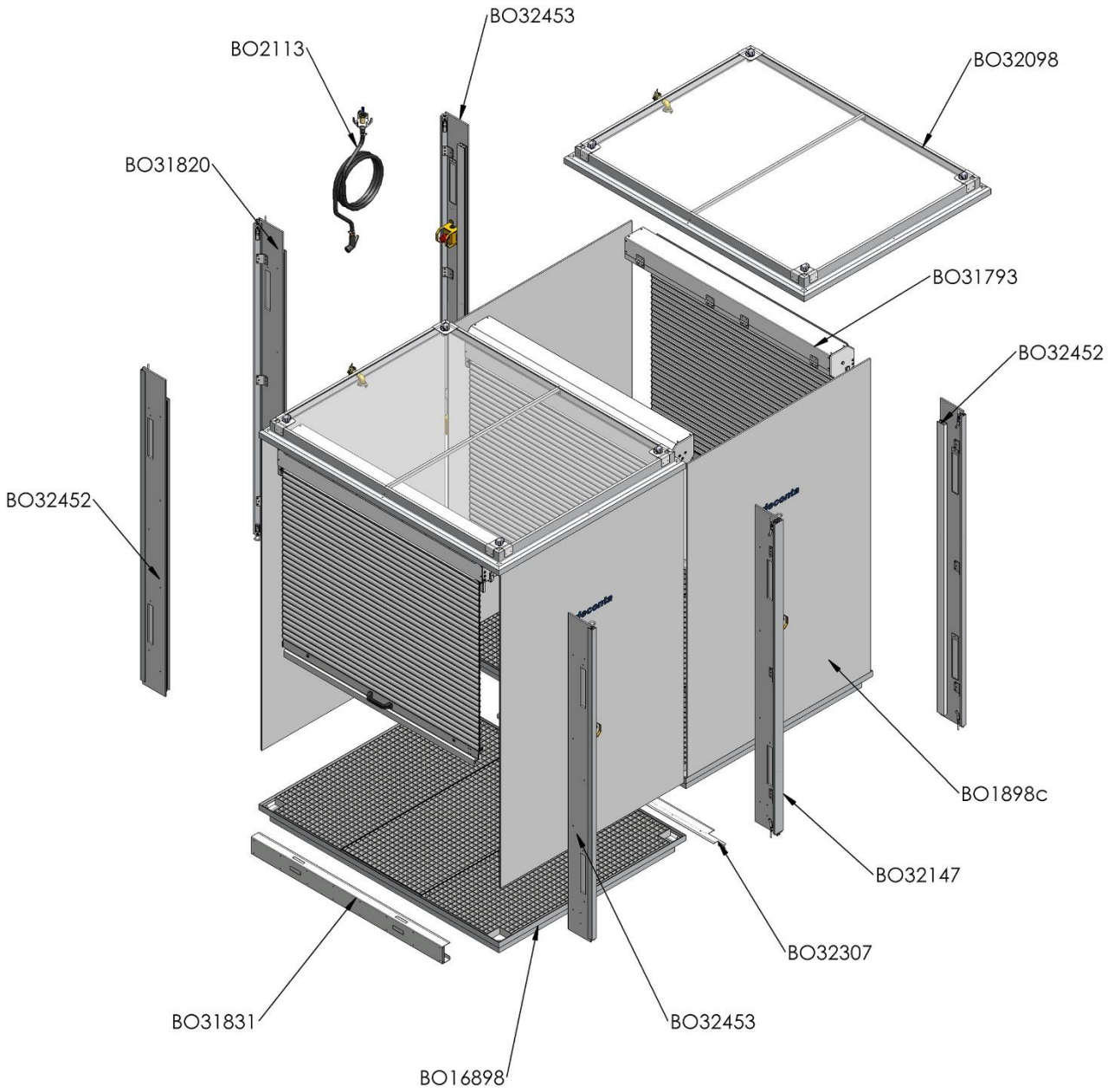
10.4 Model 1400 with roller shutter



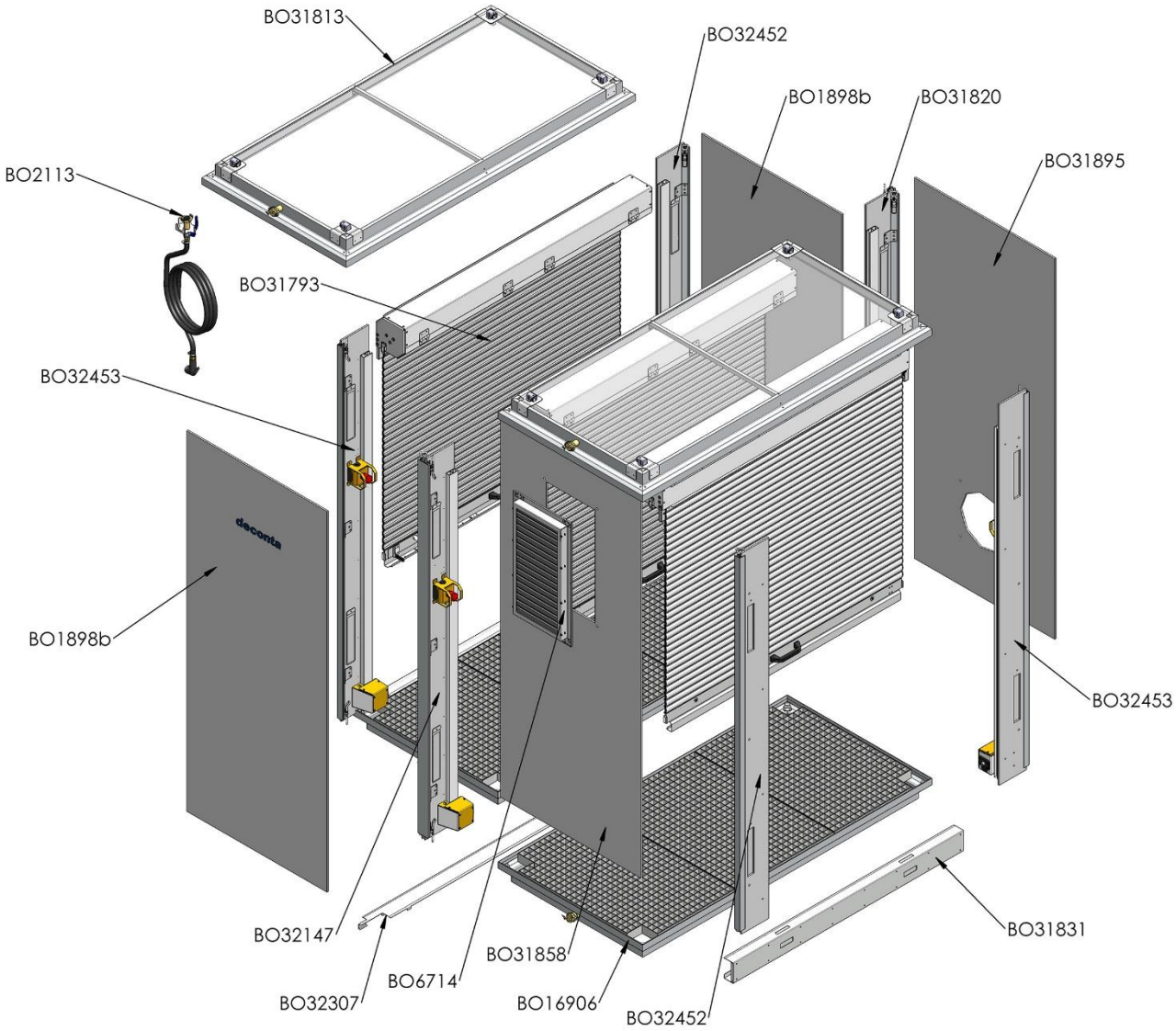
10.5 Model 900 with roller shutter and positive locking



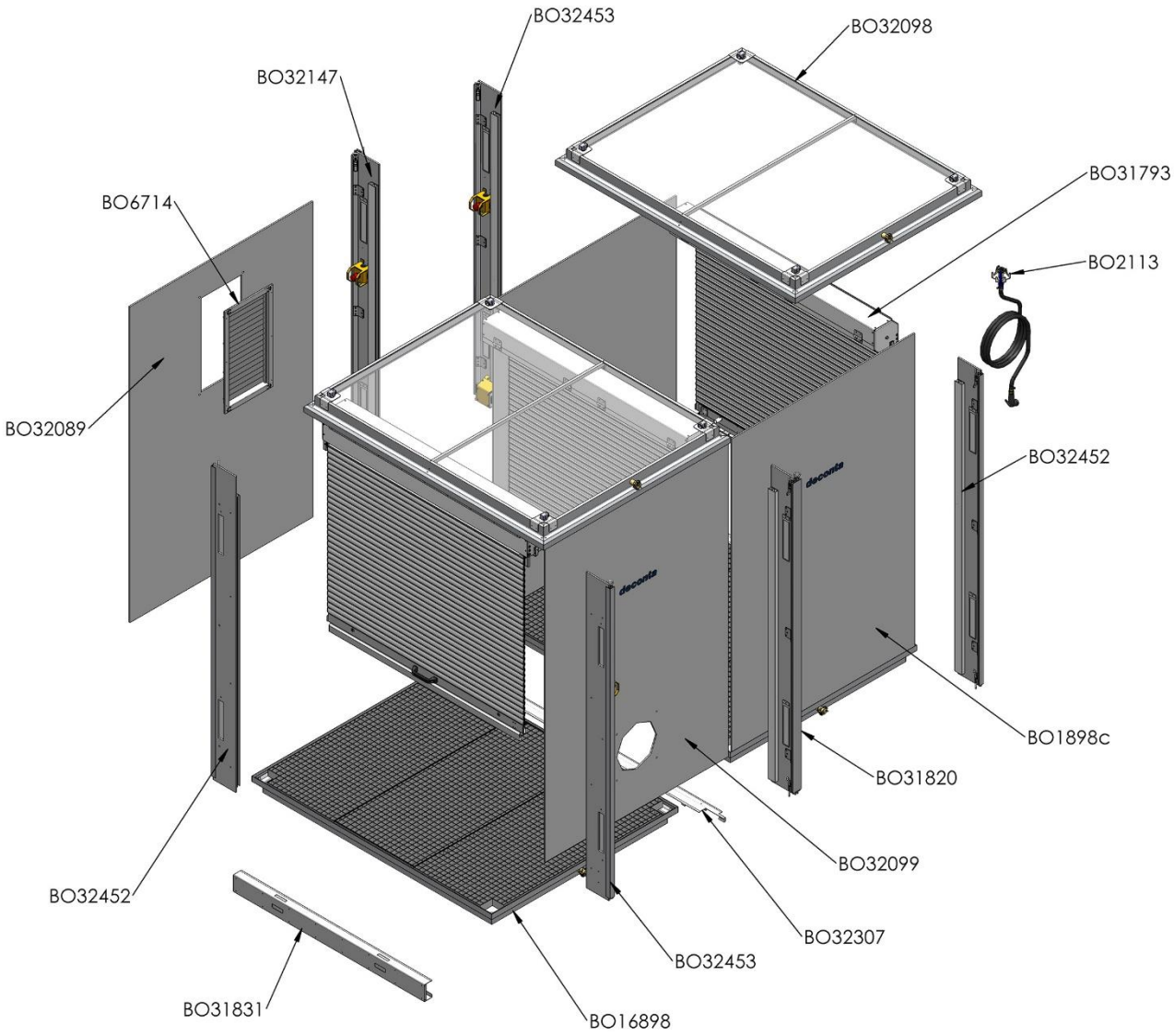
10.6 Model 1400 with roller shutter and positive locking



10.7 Model 900 with MZA 30



10.8 Model 1400 with MZA 30



11 Maintenance

Daily maintenance

- Check the water pipes for free flow
- Clean the airlock area daily
- Clean the airlocks carefully with a damp cloth at the end of each shift
- Checking the floor elements for free flow

Commercially available household cleaners can be used for cleaning and care.

12 Possible faults and their rectification

Malfunction	Possible cause	Remedy
Difficulties when installing wall and floor elements	Corner profiles are dirty	Clean corner profile
	Corner profiles are bent	Set up the corner profile
Tension fasteners too loose	Clamping length set incorrectly	recreate
Tension fasteners too tight	Clamping length set incorrectly	recreate

13 Storage

This section contains information on the safe storage of the airlock.

The lock is stored in the following cases:

- After decommissioning for a longer period of non-use
- After decommissioning for relocation

13.1 Prerequisites

The following requirements must be met for storing the lock:

- Thoroughly cleaned (decontaminated)
- To prevent damage, the airlock may only be stored in dry rooms that are inaccessible to unauthorised persons

We expressly refer to possible additional regional and national regulations for the storage of the appliance technology.

14 Waste disposal

Disposal is the capture, collection, transformation, selection, processing, regeneration, destruction, utilisation and sale of the materials to be disposed of that are installed in the airlock.

This section contains information on the proper and professional disposal of the airlock.

14.1 Qualification of staff

Persons disposing of the airlock must fulfil the following requirements:

Person	Required qualification
Disposer	Qualified waste management company for legally compliant, proper and professional disposal of the arilock

14.2 Legislation

The airlock is disposed of in accordance with the legal regulations of the country in which the airlock is disposed of.

Compliance with these legal regulations is generally the responsibility of the operator of the airlock or the person authorised to dispose of the waste.

15 EC Declaration of Conformity

The manufacturer

deconta GmbH
Im Geer 20
46419 Isselburg

hereby declares that the following product

Product designation:	Material lock ECO-Line model 900 / 1400
Trade name:	Material lock ECO-Line

Description:

Material lock in a modular system for separating the contaminated and clean areas. Any number of chambers can be connected without special components and without tools.

complies with all relevant provisions of the applicable legislation (hereinafter), including any amendments thereto in force at the date of the declaration. The sole responsibility for issuing this declaration of conformity lies with the manufacturer.

The following legal provisions were applied:

RoHS Directive 2011/65/EU

The following harmonised standards were applied:

EN IEC 63000:2018	Technical documentation for the assessment of electrical and electronic equipment with respect to the restriction of hazardous substances (IEC 63000:2016)

Place: Isselburg

Date: 06.11.2023

Leiter Konstruktion / head of construction

Leiter Elektro / head of electro