


Operating instructions (original) Water treatment C 110 L

Type 564



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1 Product and manufacturer

1.1 Product

The following product is described in these operating instructions:

Water treatment C 110 L

Serial number: see type plate

1.2 Manufacturer

Name and address	deconta GmbH Im Geer 20 46419 Isselburg
	
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1.3 Change index

date	Version	Amendment	Responsible
14.08.2024	2	Complete revision	Thomas Boland

2 About these operating instructions

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

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

2.1 Purpose

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

This information is intended for persons who perform tasks with or in connection with the machine.

The following table provides an overview of people and tasks.

Person	Task
Operator	<< Machine-specific >>
Occupational safety specialist	<ul style="list-style-type: none"> • Carry out a risk assessment • Create operating instructions • Instruct persons
Maintenance engineer	Maintenance of the mechanics
Qualified electrician (EFK)	Installation and maintenance of electrical equipment
Freight forwarder	External transport of the machine
Conveyor	Internal transport of the machine
Disposer	Dispose of the machine in a legally compliant, proper and professional manner

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 machine.

The operator must keep these operating instructions or extracts thereof within easy reach in the immediate vicinity of the machine.

If the machine is handed over to another person, the operator passes these operating instructions on to this person.





2.3 Warnings

These operating instructions contain warnings 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 Warning words and warning colours

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

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

2.3.2 Structure

Warnings are structured according to the SAFE method:

S	Warning 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
	Warning of electrical voltage		General warning sign
	Warning of hot surface Risk of scalding		

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 machine

This section contains information on understanding the machine.

3.1 General description

General description of the product

The Water treatment system was designed and built by deconta GmbH, Im Geer 20, 46419 Isselburg.

Electric hot water cylinder for heating shower water. The water can be filled either manually via a filling opening (with bucket) or automatically with a permanently connected freshwater hose. An electric heating element heats the water to shower water temperature (factory setting approx. 37°C). The shower water is pumped out via an integrated pump and filtered in 3 stages.

3.1.1 Wastewater pump

The self-priming wastewater pump is built into the Water treatment system ready for operation. When showering, an automatic system ensures that the pump starts and runs during the entire process. It can also be started manually.

Procedure for carrying out the risk assessment for machinery

- Language of the risk assessment: German
- Risk assessment: EN ISO 12100 Safety of machinery - General principles for design - Risk assessment and risk reduction, three-stage iterative process for risk reduction in conjunction with Machinery Directive 2006/42/EC, Annex I, first general principle
- Risk assessment: DIN ISO/TR 14121-2 Safety of machinery - Risk assessment - Part 2: Practical guide and examples of procedures, 6.3 Risk graph; Determination of the required performance level (PLr): EN ISO 13849-1 Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design; Determination of the SIL (Safety Integrity Level): EN 62061 Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems

3.2 Scope of delivery

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

- Water treatment C 110 L
- Filters
- Service Pack
- These 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)
- Without residual fibre bonding
- Without filter
- Without damage

3.4 Operating modes

3.4.1 Available operating modes

Type of utilisation

The machine 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

- on roofed areas
- in rooms closed on all sides

Operating modes

Operating modes for use:

- Automatic mode
- Manual operation

3.5 Interfaces

This section contains information about interfaces.

The following interfaces are available on the machine:

Interfaces

- Human - product: Selector switch
- Product - power supply: Electrical power supply 230 V
- Product - waste products: Geka connection for filtered wastewater into the sewage system
- Product - material feed: Geka connection for contaminated shower water
- Product - base: Castors

3.6 Type plate

The rating plate contains information for identifying the machine.

3.6.1 Execution



Aluminium plate, riveted

3.6.2 Position

Close to the service

3.7 Accessories

The following accessories are optionally available for Water treatment:

Designation	Article no.	Illustration
Wastewater hose 5m with 3/4" Geka connection	BU1504	
Freshwater hose 5m with 1/2" Geka connection	BU1504a	

4 Technical data

4.1 Dimensions

- Length: 606 mm
- Width: 606 mm
- Height: 1115 mm

4.2 Mass

- Weight: 54 kg

4.3 Performance data

- Power connection: 230 V
- Current consumption: 9 A
- Heat output: 2000 W
- Useful water volume: 110 litres
- Tank filling: automatic or manual via filling opening
- Filter stages: 3
- Filter size: 10"

5 Security

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

5.1 Intended use

The machine is intended exclusively for the following use:

Intended use

When carrying out decontamination work in enclosed spaces, it is important to ensure that hazardous substances do not leave the decontamination area in an uncontrolled manner and thus pose a risk to people and the environment. For this reason, persons leaving the decontamination area via airlocks must shower when leaving.

The deconta Water treatment system heats the shower water and treats (filters) the contaminated wastewater.

The user must comply with the operating parameters specified in the operating instructions. The appliance may only be used in accordance with 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.

Authorised persons

The following persons are authorised to handle the product:

- Specialised personnel
 - Task: Maintenance and servicing
 - Qualification: trained specialist personnel (fitters, industrial mechanics, electricians) with knowledge and experience in handling the machine
- Operating personnel
 - Task: Operation
 - Qualification: Training activity, information through operating instructions

Any other use is not in accordance with the intended use.

Field of application

The machine is intended for use in the following areas of application:

Field of application

- Refurbishments

5.2 Misapplication

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

Reasonably foreseeable misuse

- Any application other than that described in the operating instructions
 - Any use of the machine 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 machine in a technically unsatisfactory condition, not being aware of safety and hazards and not observing all instructions in the documentation
- Use in potentially explosive atmospheres

5.3 Tasks and qualifications of staff

Person	Task	Required qualification
Operator	<< Machine-specific >>	Instruction, training
Programmer	Machine teaching, programming	Knowledge of programming and teaching machines and robots
Occupational safety specialist	<ul style="list-style-type: none"> • Carry out a risk assessment • Create operating instructions • Instruct persons 	Completed training as an occupational safety specialist with recent experience with machines
Qualified electrician	Installation and maintenance of electrical equipment	A person with suitable training, appropriate education, timely experience and knowledge of the relevant regulations that enables them to recognise risks and avoid hazards that may arise from electricity.
Freight forwarder	External transport of the machine	A person with suitable training, appropriate education, up-to-date experience and knowledge of the relevant regulations, who is able to transport machines safely off-site.
Conveyor	Internal transport of the machine	A person with suitable training, appropriate education, up-to-date experience and knowledge of the relevant regulations, who is able to transport machines safely within the company.
Disposer	Dispose of the machine	Qualified waste disposal company for legally compliant, proper and professional disposal of the machine

5.4 Notes on occupational health and safety

The operator of the machine is responsible for implementing the obligations arising from occupational health and safety. The health and safety regulations of the country in which the machine 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 machine
- 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 external and internal transport of the machine.

Transport is the movement of the machine by manual or technical means.

HINWEIS

In winter, it is essential to pay attention to the risk of frost:

Empty the water pipes, tank, filter housing and pumps

6.1 Empty tank



Preset water temperature to approx. 37°C.

Caution: Do not change the settings on the heating element. Risk of scalding!

Disconnect the appliance from the power supply. To empty, remove the Geka sealing cap on the "Empty tank" connection and open the ball valve.



Ball valve

Sealing cap

6.2 Loss of warranty claims

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

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

6.3 External transport

6.3.1 Transport space

Off-site transport takes place in public areas. The machine is transported from one location to another.

6.3.2 Legislation

The off-site transport of the machine is carried out in accordance with the legal regulations of the country in which the machine is transported off-site.

6.3.3 Qualification of staff

Persons transporting the machine outside the company must fulfil the following requirements:

Person	Required qualification
Freight forwarder	Completed training in transport and experience in the external transport of machines
Logistician	Completed training and experience in the internal transport of machines

6.3.4 Warning of residual risks



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

6.3.5 Means of transport

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

- The load capacity must be dimensioned so that the mass of the machine can be safely supported.
- The size of the transport surface must be dimensioned so that the machine can be parked safely on the transport surface without falling.



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

6.4 Internal transport

6.4.1 Transport space

During internal transport, the machine is transported from one installation location to another on the company premises.

6.4.2 Legislation

The internal transport of the machine is carried out in accordance with the legal regulations of the country in which the machine is transported outside the company.

6.4.3 Warning of residual risks



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

6.4.4 Means of transport

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

- The load capacity must be dimensioned so that the mass of the machine can be safely supported.
- The size of the transport surface must be dimensioned so that the machine can be parked safely on the transport surface without falling.



Machine 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 machine.

The Water treatment system is delivered ready for operation ex works and is intended for immediate commissioning.

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

8 Put into operation

This section contains information on commissioning the machine.



- Pull out the mains plug
- Make hose connections:
 - Optionally connect the "water inlet" connection to the mains or fill the tank manually via the filling opening
 - Connect "shower water" connection to shower roof
 - Connect "Wastewater IN" connection to shower base
 - Connect the "Wastewater OUT" connection to the sewerage system
- Establish power connection
- When using the automatic freshwater feed, the maximum fill level is monitored by a float switch
- The device is now ready for operation



Switch on the "Hot water start" switch, water can now be drawn from the shower head. The wastewater pump is automatically switched on when water is drawn off.

8.1 Switch positions Function switch



- Centre position: Heating element in operation
- Left position: Wastewater pump and heating element in operation
- Right position: Shower water pump, wastewater pump and heating element in operation

9 Operation

This section contains information for the safe use of the machine.

9.1 Qualification of staff

Persons using the machine must fulfil the following requirements:

Person	Required qualification
Operator	Instruction, training by the manufacturer

9.2 Warning of residual risks



Contact with wires of a damaged mains connection cable.

Touching machine parts that have become live due to faulty conditions.

Only operate the appliance on power supply networks that are protected by residual current circuit breakers!



Damage due to unsuitable mains voltage.

The appliance may be damaged if it is connected to an unsuitable mains voltage.

Check whether the voltage specified on the rating plate corresponds to the local mains voltage.



Preset temperature (approx. 37°C). Do not change the settings on the heating element. Risk of scalding!

Check the outlet temperature before every shower!



Never operate the appliance without water!

If there is a risk of frost, as described in 6.1 Empty as described!

9.3 Number of persons

One person is required to use the machine.

9.4 Tools required

No tools are required to use the machine.

9.5 Equipment required

No equipment is required to use the machine.

10 Maintenance

This section contains information for the safe maintenance of the machine.

Maintenance comprises all technical and organisational measures during the life cycle of the machine that ensure the safe, economical and functional condition of the machine and prevent environmental damage.

10.1 Loss of warranty claims

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

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

10.2 Maintenance

Maintenance work, including changing/removing the filter, may only be carried out by authorised persons wearing suitable protective clothing.

The appliance must be completely disconnected from the power supply for all repair and maintenance work.

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

10.2.1 Warning of residual risks



Contaminated filters may only be changed in compliance with all relevant safety precautions. Only change filters when the appliance is switched off. Only use approved filters.



Pull out the mains plug before opening the housing

10.2.2 Personal protective equipment required



Maintenance work, including changing/removing filters, may only be carried out by authorised persons wearing suitable protective clothing.

10.3 Daily maintenance

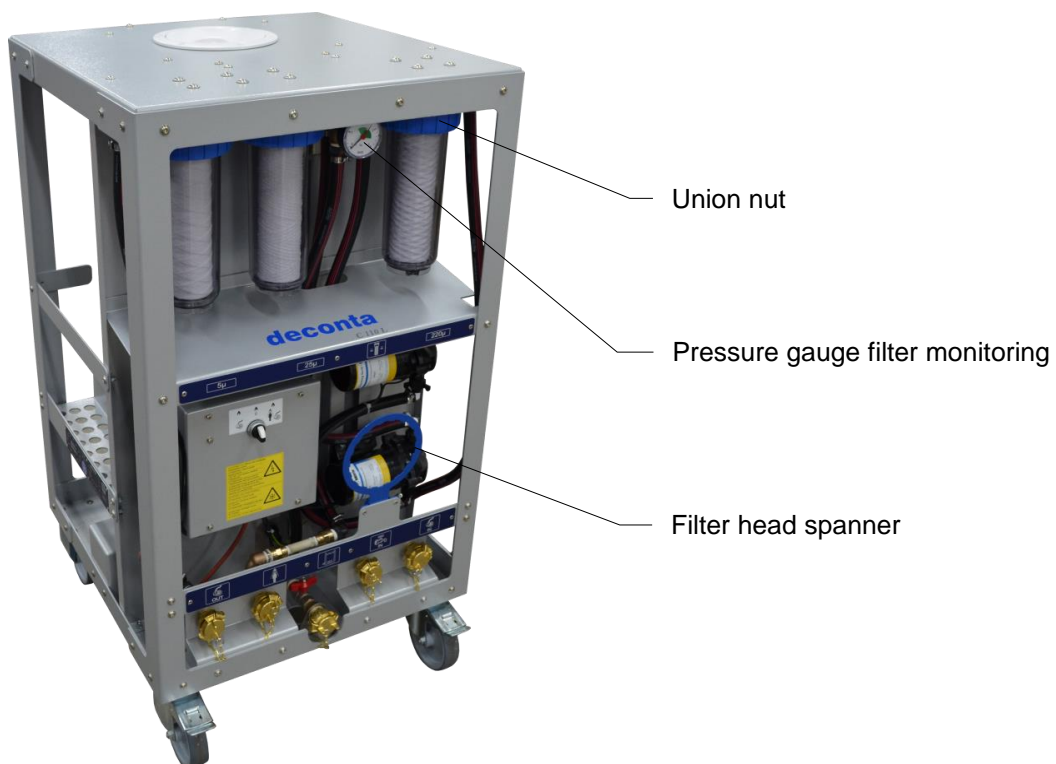
- Check the water pipes for free flow
- Visual inspection of the filters for contamination

10.4 Filter change

The fine filter is monitored via the pressure gauge. We recommend changing the filter at approx. 3 bar.

Attention:

- Only change the filter when the appliance is switched off
- Remove dirty filters when damp to prevent the release of filter dust
- Only use approved filters
- Damaged filter cartridges must not be used



Filter change:

- Loosen the union nut using the filter head spanner
- Remove the filter and dispose of it in accordance with regulations
- Insert new filter cartridge
- Ensure that the sealing ring is correctly seated and clean
- Tighten the union nut **hand-tight**



Suction hoses, pumps, filter housings and filters are already contaminated during initial use. Repairs and maintenance work may only be carried out in compliance with all relevant safety measures.

The filters must be disposed of in accordance with legal regulations.

10.5 Reduction of legionella growth

To avoid excessive legionella growth, we recommend heating the water in the tank to a temperature of $\geq 60^{\circ}\text{C}$ once or twice a week.

To clean the hoses and shower device, the heated water should also be removed from the shower device for approx. 3 minutes.

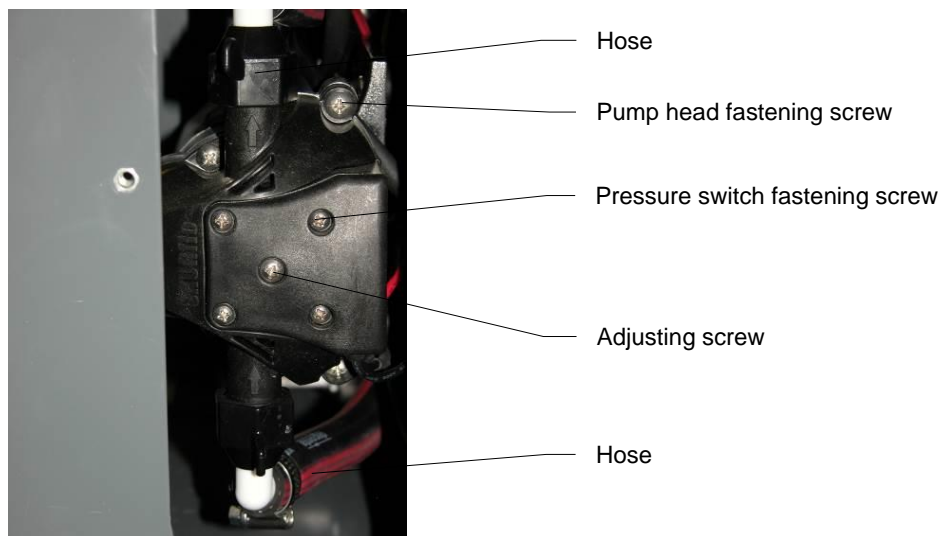


Caution: Danger of scalding!

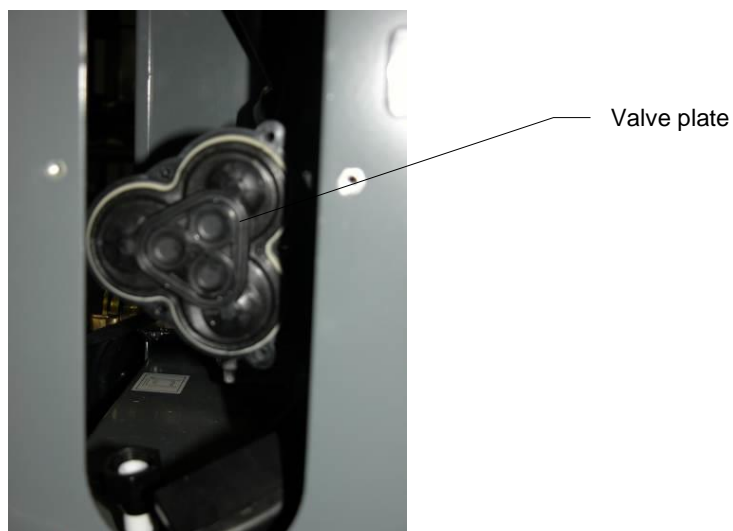
Alternatively, an authorised disinfectant can also be used.

10.6 Cleaning wastewater pump

- Remove hoses
- Remove the fixing screws of the pressure switch. **CAUTION: Do not adjust the centre adjusting screw!**



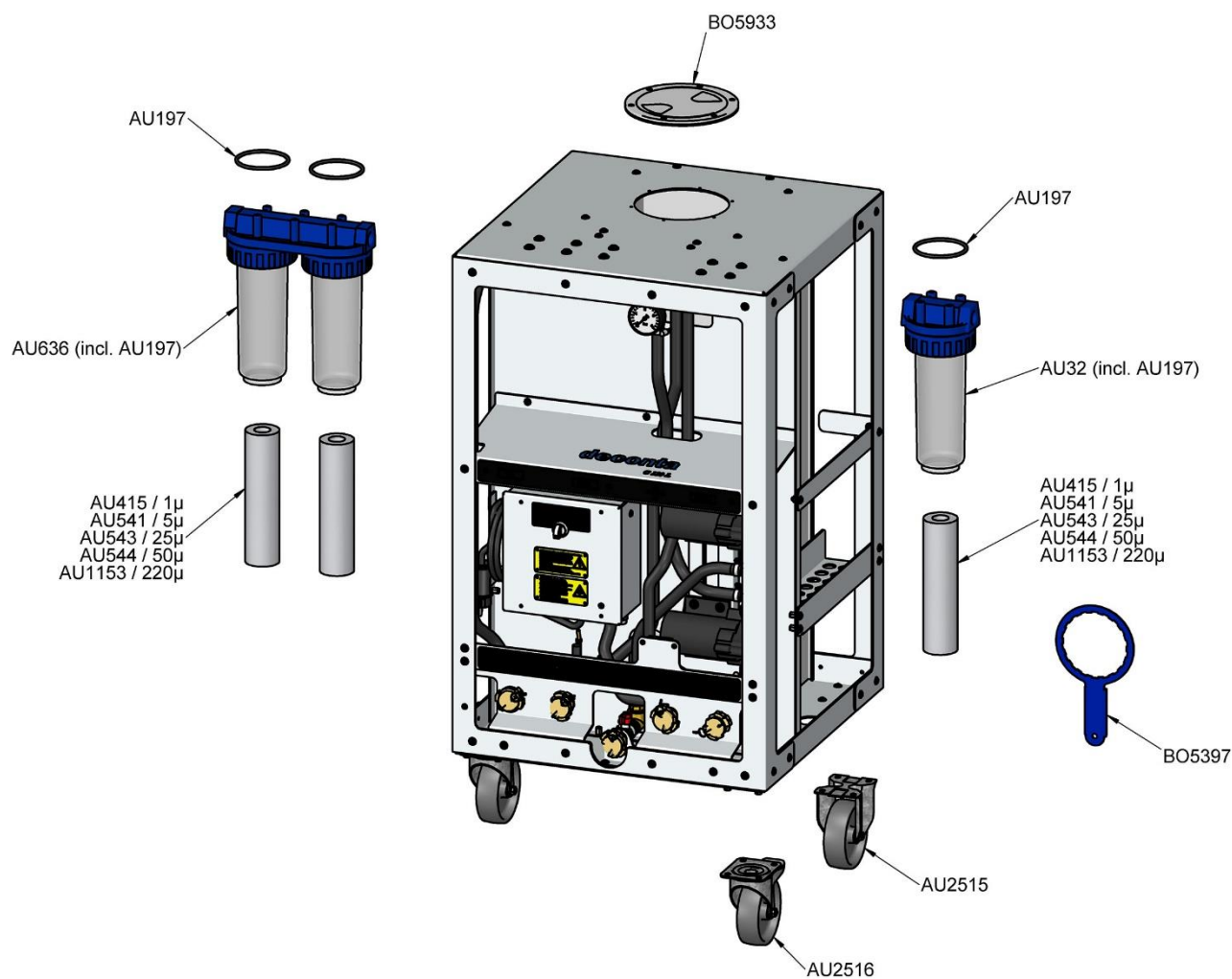
- Remove the fastening screws from the pump head and remove the head
- Remove the valve plate and clean the front and rear sides



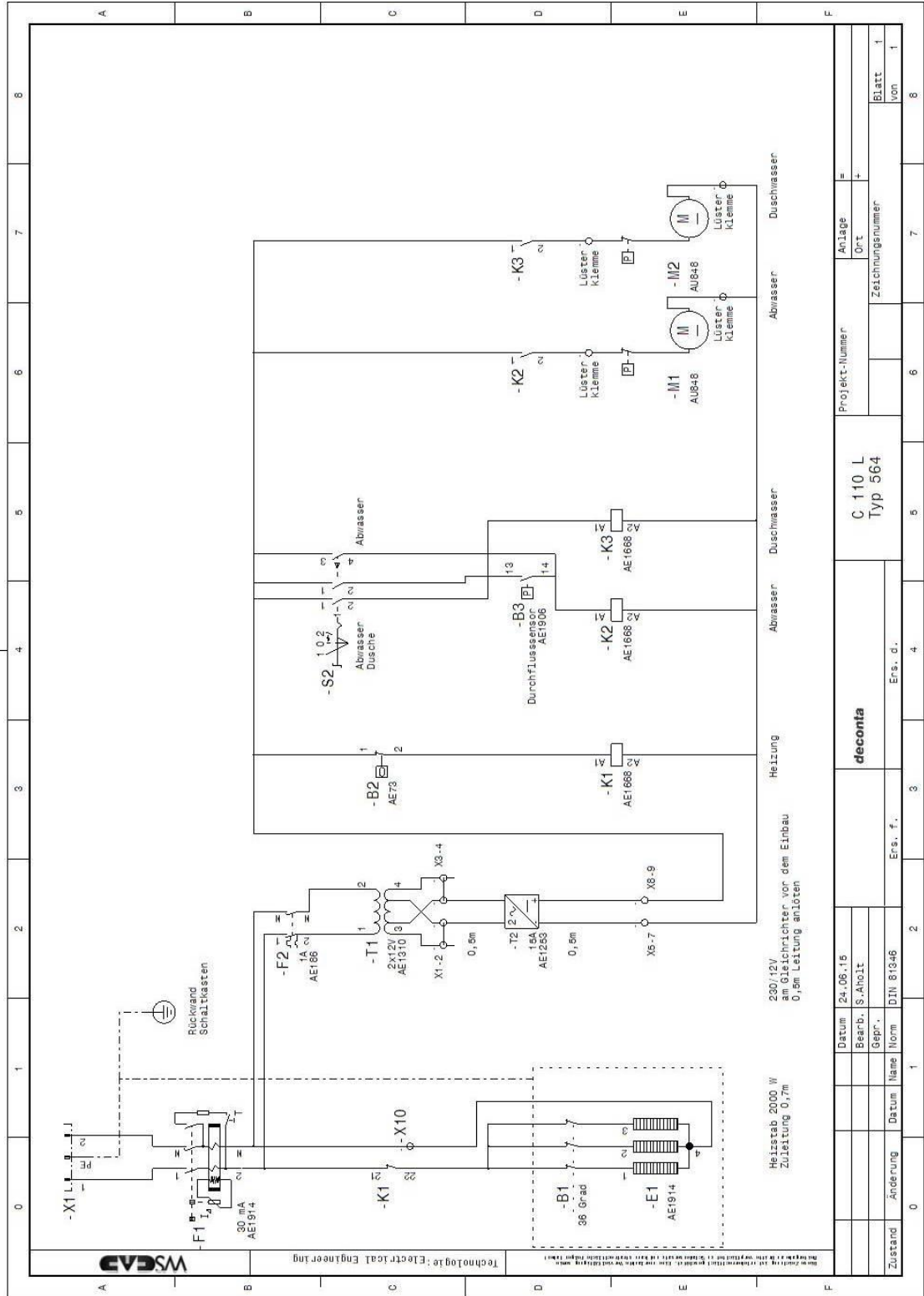
11 Spare parts

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

If this is not possible, the alternative spare parts should correspond to the properties of the original spare parts in order to ensure safe, trouble-free and economical use of the machine.



12 Circuit diagram



13 Cleaning

The appliance must be cleaned and rinsed before each use (including the first use). This also applies to the optionally available water hoses.

After use, the hoses must be carefully rinsed, disinfected and completely emptied or dried.

14 Storage

To prevent damage, the appliance may only be stored in dry rooms that are inaccessible to unauthorised persons.

HINWEIS

In winter, it is important to pay attention to the risk of frost:

Empty water pipes, filter housing, tank and pumps

The optional hoses may only be stored completely empty and in a hygienic condition!

During storage, care must be taken to ensure that contamination with other substances is excluded. Drinking water hoses (freshwater hoses) and wastewater hoses must be stored separately.

15 Waste disposal

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

This section contains information on the proper and correct disposal of the machine.

15.1 Qualification of staff

Persons who dispose of the machine must fulfil the following requirements:

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

15.2 Legislation

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

The operator of the machine or the person authorised to dispose of the waste is responsible for compliance with these legal regulations.

15.3 Waste

The waste generated by the machine must be disposed of properly and professionally in accordance with the law.

16 EC Declaration of Conformity

The manufacturer / distributor

deconta GmbH
Im Geer 20
46419 Isselburg

hereby declares that the following product

Product designation: C 110 L
Type designation: 654
Serial number: see type plate
Trade name: Water treatment C 110 L
Year of manufacture: see type plate

complies with all relevant provisions of the applicable legal regulations (hereinafter) - including their amendments valid at the time of the declaration. This declaration of conformity is issued under the sole responsibility of the manufacturer. This declaration relates only to the machine in the state in which it was placed on the market; parts and/or modifications subsequently fitted by the end user are not taken into account.

The following legal provisions were applied:

Machinery Directive 2006/42/EC
RoHS Directive 2011/65/EU

The protection targets of the following other legal regulations were met:

Low Voltage Directive 2014/35/EU

The following harmonised standards were applied:

EN 60204-1:2018	Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2016 (Modified))
EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)
EN ISO 13849-1:2015	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2015)
EN ISO 13849-2:2012	Safety of machinery - Safety-related parts of control systems - Part 2: Validation (ISO 13849-2:2012)

Name and address of the person authorised to compile the technical documentation:
Boland, Thomas - deconta GmbH - Im Geer 20 - 46419 Isselburg

Place: Isselburg
Date: 27.03.2023



Leiter Konstruktion / head of construction



Leiter Elektro / head of electro