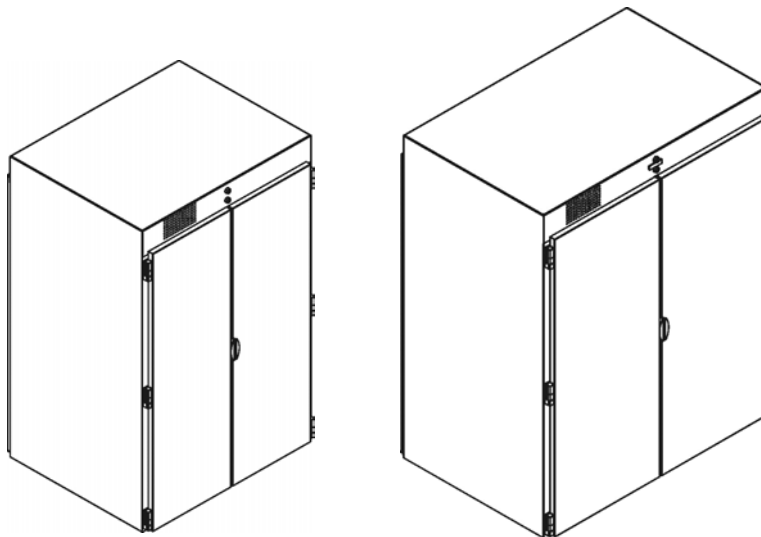


## Operating Instructions



**Pass-through chamber**  
6 StE | 9 StE

# 1 Introduction

---

## 1.1 Appliance Information

---

Appliance name	Pass-through chamber
Appliance type/s	6 StE   9 StE
Manufacturer	HUPFER® Metallwerke GmbH & Co. KG Dieselstraße 20 48653 Coesfeld Germany  Postfach 1463 48634 Coesfeld Germany   +49 2541 80 50  +49 2541 805 111  <a href="http://www.hupfer.de">www.hupfer.de</a> <a href="mailto:info@hupfer.de">info@hupfer.de</a>

Read and understand these operating instructions to ensure safe operation and avoid any damage!

Ensure that operating staff have been briefed regarding sources of danger and possible incorrect handling.

### Subject to modifications

The products covered by these operating instructions have been developed while taking into account market requirements and the latest technology. HUPFER® reserves the right to modify its products and associated technical documentation insofar as the modifications are in the name of technological progress. The data and weights as well as the description of performance and functions assured in the order confirmation as binding are always decisive.

### Translation of the original edition

**Manual edition**  
91329935\_A2

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## 1.3 List of Abbreviations

Abbreviation	Definition
AK-BWA	Working Group Bedframe and Cart Decontamination Systems ( <i>Arbeitskreis Bettgestell- und Wagendekontaminationsanlagen</i> )
BGR	German Employers' Liability Insurance Association rule ( <i>Berufsgenossenschaftliche Regel</i> )
BGV	German Employers' Liability Insurance Association regulations ( <i>Berufsgenossenschaftliche Vorschrift</i> )
DGSV e.V.	German Society for Sterile Supply ( <i>Deutsche Gesellschaft für Sterilgutversorgung</i> )
DIN	Deutsches Institut für Normung German Institute for Standardisation, technical regulations and technical specifications
EC	European Community European Community
EN	European Standard ( <i>Europäische Norm</i> ) Harmonised standard for the EU market
E/V	Spare or wearing part ( <i>Ersatz- bzw. Verschleißteil</i> )
MPG	German Law on Medical Devices ( <i>Medizinproduktegesetz</i> )
RDG	Cleaning and disinfecting machines ( <i>Reinigungs- und Desinfektionsgeräte</i> )
StE	Sterilisation unit ( <i>Sterilguteinheit</i> )
ZSVA	Central Sterile Supply ( <i>Zentrale Sterilgutversorgung</i> )

## 1.4 Definitions of Terms

Term	Definition
Autoclave	Gas-tight, sealed pressure container used in medical environments to sterilise instruments, linen used for operations and similar items.
Authorised specialist	An authorised specialist is a specialist that has been trained by the manufacturer, an authorised service dealer or a company assigned by the manufacturer.
Container washing system	Automated disinfection (cleaning and chemical/thermal disinfection) of different items used for treatment purposes, primarily used in medical environments such as in transport trolleys, sterilisation containers, OP clogs and so forth. Procedure is carried out under defined conditions (solution concentration, temperature, contact duration).
Disinfection	Reduction of causal agents of infections on and in contaminated objects, so that the objects can no longer be the source of further infections.
German Society for Sterile Supply ( <i>Deutsche Gesellschaft für Sterilgutversorgung e.V.</i> )	The primary objective is to create a uniformly high standard of quality in the preparation of medical devices. The recommendations of the Quality Committee of Experts provide tips and instructions on practical methods of preparation. For instance, the introduction of agreed curricula for training personnel entrusted with preparing medical devices made it possible to implement recognised standards that have made a significant contribution towards achieving the stated objectives.
Specialist	A specialist is a person who can assess work assigned and can recognise possible hazards themselves based on their professional training, skills, experience and knowledge of the respective guidelines.
ISO Standard	The ISO standard is a system of measurements governing containers used in sterile supply logistics, for example, for transport and storage of articles in cupboards and transport vehicles, in OP theatres, ambulances, preparation and ward rooms as well as laundry rooms. The basic dimension is 15.7 x 23.6" (400 x 600 mm). ISO standard containers are available in different versions and with different depths.
Cavitation	The generation and implosion of steam bubbles in liquids induced by rapid changes in pressure.

Term	Definition
Check, inspect	Compare with certain conditions and/or characteristics such as damage, leaks, filling levels and heat.
German Law on Medical Devices ( <i>Medizinproduktegesetz</i> )	The German law governing medical devices is the name given in Germany and Austria to the transposition into national law of the European Directives 90/385/EEC relating to Active Implantable Medical Devices, 93/42/EEC relating to Medical Devices and 98/79/EEC relating to In-Vitro Diagnostic Medical Devices. Medicines are not covered by the term medical devices.
Emergency Stop button	<p>Button that is used to place a machine, system, etc. quickly into a safe condition in the event of danger or to prevent a danger. In accordance with DIN EN ISO 13850:2008-09, the emergency stop must be as described in one of the following stop categories:</p> <ul style="list-style-type: none"> <li>- Stop category 0 (formerly EMERGENCY OFF): Immediate interruption of the energy supply or mechanical disconnection between machine and drive, also by braking if necessary</li> <li>- Stop category 1 (formerly only EMERGENCY STOP): Controlled shutdown with energy supply to the drive in order to come to a stop and, after stopping, disconnection of the energy supply</li> </ul>
Verify, test	Compare with certain values such as weight, torque, content or temperature.
Qualified person, qualified personnel	Qualified personnel are persons who due to their professional training, experience, instruction and their knowledge of relevant standards, guidelines, accident prevention regulations and operating conditions have been authorised by a person responsible for system safety to carry out required activities and can recognise and prevent any potential hazards (definition of specialists according to IEC 364).
Clean/unclean side	<p>The Central Sterile Supply consists of three working areas: the unclean side or cleaning zone, the clean side (packaging stations) and the sterile area (sterile supply store).</p> <p>Contaminated material is cleaned and/or disinfected manually and automatically on the unclean side. Cleaning and disinfecting machines clean, disinfect and dry the material. Cleaning and disinfecting machines are so-called through-loading types that can only be loaded on the unclean side and unloaded on the clean side.</p> <p>The clean side is the second largest working area of the ZSVA (Central Sterile Supply). The cleaned and disinfected material is then packaged in containers and subsequently sterilised.</p>
Sterile supply	Sterile supply is a historical term that has developed over time in conjunction with the term sterilisation unit. This volume measurement of 54 l denotes the volume to be sterilised, in which it is possible to store a different number of medical devices. It is only of limited use as a measure of performance for the scale of sterilisation of medical devices.
Sterilisation unit	Volume unit. A sterilisation unit measuring 23.6 x 11.8 x 11.8" (60 x 30 x 30) cm, which equals a volume of 54 l.
Sterilisation	<p>A validated process to produce devices free from viable micro-organisms.</p> <p>Sterilisation, sterilising and sanitation denote processes used to free materials and objects from living micro-organisms including those in their dormant state (for example, spores). The condition that the material and objects are said to achieve through these processes is called sterile.</p> <p>Generally speaking, steam sterilisation processes (autoclave) are utilised.</p>
Sterilisation container	<p>Sterile-sealed containers used for sterilisation, transport, storage and supply of sterilised surgical instruments.</p> <p>Sterilisation containers can also be used for dry disposal of used instruments and devices.</p>
Instructed person	An instructed person is a person who has been instructed on the possible risks resulting from improper behaviour when carrying out an assigned task and regarding the necessary protective equipment and protective measures, and who has been trained for this task, if necessary.

Term	Definition
Ultrasonic cleaning	<p>Used to clean small, complex and intricately structured components. This cleaning principle is based on cavitation. Soft cavitation is not desired in ultrasonic cleaning processes; consequently, the solution is often degassed in the ultrasonic cleaning system using a special, integrated degassing programme before the cleaning process.</p> <p>The ultrasonic field in the liquid solution generates high and low pressure shock waves. When such a low-pressure wave meets an object, hollow spaces filled with vapour are induced at small air bubbles adhering to the surfaces of an object as contaminants. When high pressure waves meet the cavity, compression causes the static pressure in the cavity to rise until it surpasses the saturated vapour pressure. The vapour bubbles condense abruptly at the speed of sound. This process sees peak pressures up to as much as 1,450,380 psi (100,000 bar). This cyclic formation and collapse of hollow spaces acts on and cleans the surface. As a result, dirt and other contaminants adhering to the surface are removed mechanically.</p>
suitable for washing devices	<p>The appliance is suitable for cleaning in an automated cleaning system without restrictions. Following agreement with the manufacturer the cleaning system must achieve a hygienic, constant cleaning and drying result, which is to be approved by a third party (client).</p> <p>The exterior and interior housing are manufactured to a standard guaranteeing hermetic sealing. It is not possible for water jets to ingress into hollow spaces in the appliance. Installed electrical components and electrical wiring are protected by appropriate sealing against any form of penetration by water. Protection class IPX6 (powerful pressurised water) to DIN EN 60529 (VDE 0470) is guaranteed. No water remains or is carried over following the drying process.</p>
cleaning system-resistant	<p>The suitability of the appliance for cleaning in an automated cleaning system is limited. It is possible to achieve a flawless, reproducible cleaning and drying result, but it cannot be guaranteed.</p> <p>The exterior and interior housing are produced to standard specifications. Water ingressing hollow spaces resulting from the design of the appliance can run off without hindrance. Water collection in hollow spaces is avoided. Installed electrical components and electrical wiring are protected by appropriate sealing (for example, labyrinth edges, sealing profiles, cable channels) against any form of penetration by water. Protection class IPX6 (powerful pressurised water) to DIN EN 60529 (VDE 0470) is guaranteed. It is possible that water remains and is carried over following the drying process.</p>
Central Sterile Supply department	<p>Also Central Sterilisation. The department is responsible for cleaning, disinfecting, maintaining, sorting, sterilising and preparing modern medical devices.</p> <p>Central Sterile Supply is divided into clean and unclean areas, which are hygienically separated from one another. This approach prevents cleaned instruments from being contaminated.</p>

## 1.5 Orientation of the Appliance

### The front

The front refers to the side where the transport trolley is moved in (unclean side). The transport trolley can only be moved in from the unclean side. The pressure equalisation opening is also on this side.

### The rear

The rear refers to the side on which the end stop is located (clean side). The end stop prevents the transport trolley from moving out on the clean side. The removal or disposal of material from/into the transport trolley is only possible from the clean side.

### The right

The right refers to the right hand side when viewed from the front side (front).

### The left

The left refers to the left hand side when viewed from the front side (front). The rating plate on the outside on the housing of the pass-through chamber is also located on this side.




## 1.6 Notes on Using the Manual

### 1.6.1 Notes on the Manual Structure

This manual is divided into function- and task-focused sections.

### 1.6.2 Notes and their Representation used in all Sections

The warnings and notes are separated from the other text and particularly marked by corresponding icons. The icon cannot, however, replace the text of the safety instructions. Therefore, always read thoroughly the full text of the safety instructions. The warnings and notes are separated in these operating instructions as follows and categorised by the following danger levels by means of various symbols.

<b>DANGER</b>	<b>Brief description of hazard</b>
	<p>There is an imminent threat to life and physical well-being for the user and / or third parties if instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of hazard is indicated by a symbol and explained in the accompanying text in more detail. The general symbol for danger is used in this example.</p>
<b>WARNING</b>	<b>Brief description of hazard</b>
	<p>There is an indirect threat to life and physical well-being for the user and / or third parties if the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of hazard is indicated by a symbol and explained in the accompanying text in more detail. The general symbol for danger is used in this example.</p>
<b>ATTENTION</b>	<b>Brief description of hazard</b>
	<p>There is a potential risk of injury or damage to property if the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of hazard is indicated by a general symbol and explained in the accompanying text in more detail. The general symbol for danger is used in this example.</p>
<b>NOTE</b>	<b>Brief description of additional information</b>
	Attention is pointed to special conditions or additional important information on the topic concerned.
<b>INFO</b>	<b>Short title</b>
	Contains additional information on aspects which make work easier or recommendations on the topic concerned.



## 2 Safety Instructions

### 2.1 Introduction

The section on safety instructions describes the risks associated with the appliance in terms of product liability (according to the EU Directives).

The safety instructions should warn of hazards and help to avoid damages to persons, the environment and property. Please make sure that you have read and understood all the safety instructions given in this section.

You must comply with the respectively valid national and international Safety at Work Regulations. The manufacturer is responsible for the valid regulations he/she has to provide. He/she must acquaint himself/herself and the operator with the new regulations.

### 2.2 Warning Symbols Used

Symbols are used in these operating instructions to indicate the dangers that may occur while operating or cleaning the appliance. In both cases, the symbol provides information on the type and circumstances of hazards.

The following symbols may be used:



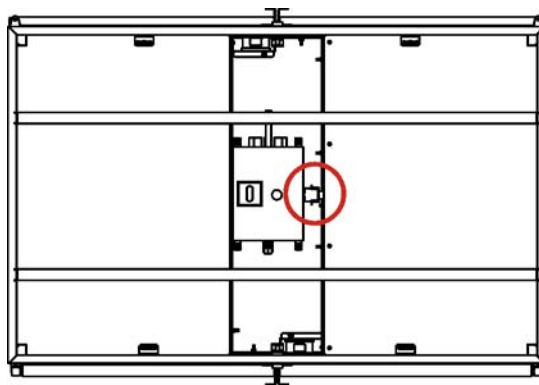
General hazard area



Access forbidden to unauthorised personnel

### 2.3 Emergency Stop Button

The hinged switch box in the interior accommodates the electrical control unit of the appliance as well as the Emergency Stop button (stop category 0). In the event of an emergency, pressing the Emergency Stop button unlocks the electro-magnetic door locking control so that the hinged doors can be opened outwards.



**Figure 1**

Position of the Emergency Stop button (viewed from above)

## 2.4 Safety Instructions for Appliance Safety

---

The appliance is operated safely if it is used correctly and carefully. Negligent handling of the appliance can lead to a threat to life and physical well-being for the user and / or third parties as well as hazards for the appliance itself and the operator's other property.

The following points are to be observed to ensure the appliance safety:

- The appliance may only be operated as intended, when it is in perfect condition with regards to technical standards, with awareness of safety and hazards and in accordance with the operating instructions.
- All operating and actuating elements must be in a perfect and fail-safe condition with regards to technical standards.
- The appliance must be checked for external visible damage and defects before each use. In case of damage, immediately inform the competent bodies and switch off the appliance.
- Modifications or retrofits to the equipment are only permitted after consultation with the manufacturer and upon receipt of their consent in writing.

## 2.5 Safety Instructions for Operation

---

The following points must be observed when operating the pass-through chamber:

- Accessing and remaining of personnel inside the appliance is forbidden.
- In the closed condition, the hinged doors must not be mechanically blocked or sealed.
- When loading, make sure that the transport trolley does not tip over due to outside influences or lack of attention. If, nevertheless, it tips over, never try to catch the transport trolley.
- The loaded transport trolleys can start moving on their own and randomly if the casters are not locked with the total brakes. Always secure the appliance against rolling away by applying the total brakes after moving it in.

## 2.6 Safety Instructions for Transport

---

The following aspects are to be taken into account when transporting the appliance:

- When loading, use only hoists and load lifting devices approved for the weight of the appliance to be lifted.
- Only use transport vehicles that are approved to carry the weight of the appliance.
- In no case put defective appliances into operation and inform the supplier immediately.

## 2.7 Safety Instructions for Cleaning and Care

---

The following aspects must be taken into account when performing any cleaning and care tasks:

- For cleaning and maintenance purposes, the doors must be fixed in place in the standing open condition and secured against closing.
- Observe applicable hygiene regulations and guidelines.
- Cleaning instructions must be strictly observed for reasons of hygiene.
- In addition to the routine cleaning to be carried out, regular disinfection measures must be carried out using recognised means and methods.

## 2.8 Safety Instructions regarding Fault Repair

---

The following aspects must be taken into account when carrying out any troubleshooting work:

- Only specially trained personnel may carry out troubleshooting and repair work. During maintenance and repair work, the product must be disconnected from the energy supply and secured against being switched back on.
- The local Accident Prevention Regulations in force must be observed.
- Observe the valid product safety regulations for the product when handling oils, greases and other chemical substances.
- Carry out all the checks and inspections on a regular basis. Remedy deficiencies, such as loose screw connections.
- Only use original spare parts to replace defective components.

## 2.9 Notes on Specific Hazards

---

### **Electric power**

- All work on the electrical installations should only be carried out by a qualified electrician, or by authorised specialists under the supervision and monitoring of a qualified electrician according to the applicable electro-technical regulations.
- The appliances on which inspection, maintenance and fault repairs are performed must be disconnected from the power supply and secured against reactivation when power is not required for such work. This may only be carried out by a qualified electrician.

## 3 Description and Technical Data

---

### 3.1 Performance Description

---

The pass-through chamber is a sluice that is provided for the temporary storage and disposal with sterile goods and material and the disposal of unclean material (e.g. appliances, contaminated sterile goods, laundry, waste, etc.) in transport trolleys.

Due to the end stop on the clean side, the transport trolley can only be moved in from the unclean side, material can be loaded and unloaded from both sides. As a result, sterile and non-sterile areas are resolutely separated from one another.

The pass-through chamber consists of a lock chamber with hinged doors on both sides. The mutually acting electro-magnetic door blocking system ensures that, when reloading material, both doors can never be open at the same time.

### 3.2 Proper Use

---

The pass-through chamber is intended for the temporary storage, supply and disposal of sterile goods and material in transport trolleys.

For cleaning and maintenance work, the doors must be fixed in place in the standing open condition and secured against closing.

Proper use includes observing specified procedures, compliance with the technical specifications and use of supplied or optional original accessories.

Any other use of the appliance is considered as unintended use.

### 3.3 Improper Use

---

Accessing and remaining of personnel inside the appliance is forbidden.

Mechanical blocking or sealing of the doors in the closed condition is forbidden.

Any alteration of the performance parameters of the appliance beyond the assured values is prohibited and considered improper use.

Operation of the appliance without or bypassing the safety devices is forbidden and considered improper use.

Operation of a defective appliance is forbidden and considered improper use.

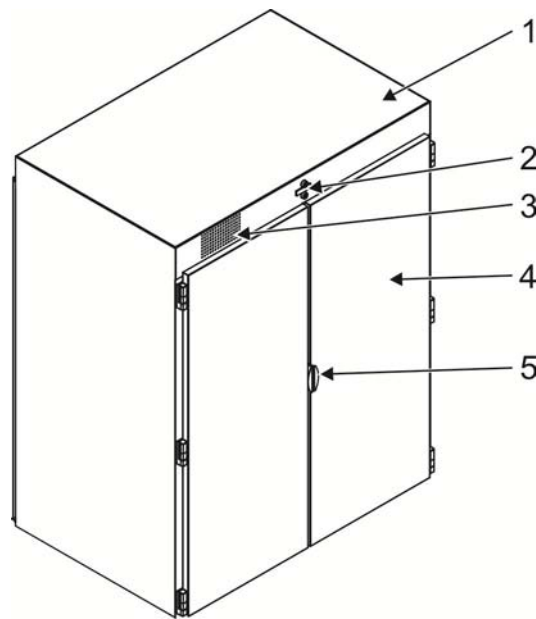
Improper assembly, putting into operation, operation or maintenance of the appliance is prohibited and considered improper use.

It is forbidden to carry objects which may greatly restrict the functioning of the appliance and considered improper use.

The manufacturer and suppliers are not liable for any consequential damage resulting from unintended use. No liability is assumed and no warranty claims can be submitted for damages caused by improper use.

## 3.4 Appliance Description

### 3.4.1 View of the Appliance



**Figure 2** View of pass-through chamber 9 StE

- |   |                               |   |                                       |
|---|-------------------------------|---|---------------------------------------|
| 1 | Roof                          | 4 | Hinged door with hinge (unclean side) |
| 2 | Control panel                 | 5 | Handle                                |
| 3 | Pressure equalisation opening |   |                                       |

### 3.4.2 Appliance Description

The pass-through chamber is produced in sturdy, closed and self-supporting design. Side walls, roof and base as well as the hinged doors are made from stainless steel.


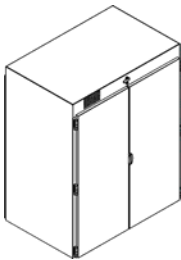
Each of the sides of the pass-through chamber are closed with two double-walled hinged doors. The doors open outwards and lift upwards on the move-in side when opened. On the door butt hinge, the respective left door is provided with an overlapping strip, all doors have a circumferential door seal as well as a rubber seal on the underside. The doors on the move-in side toward the opposite side (and vice versa in the open condition) are interlocked with an electrically controlled door latch. Only one door can be open at any one time. If there is a power failure, both sides unlock.

Due to the sealed doors, there is an overpressure or vacuum when opening and closing, that is equalised by a pressure equalisation opening on the unclean side. The hinged switch box in the interior of the pass-through chamber accommodates the electrical control unit. The electrical parts are operated by a power supply with protective extra-low voltage. On both sides of the pass-through chamber, a red indicator light indicates when the opposite doors are open.

On the clean side, there is an end stop that prevents the transport trolley moving out on the clean side.

The wall opening dimension required for installing the pass-through chamber is based on the building-side installation situation.

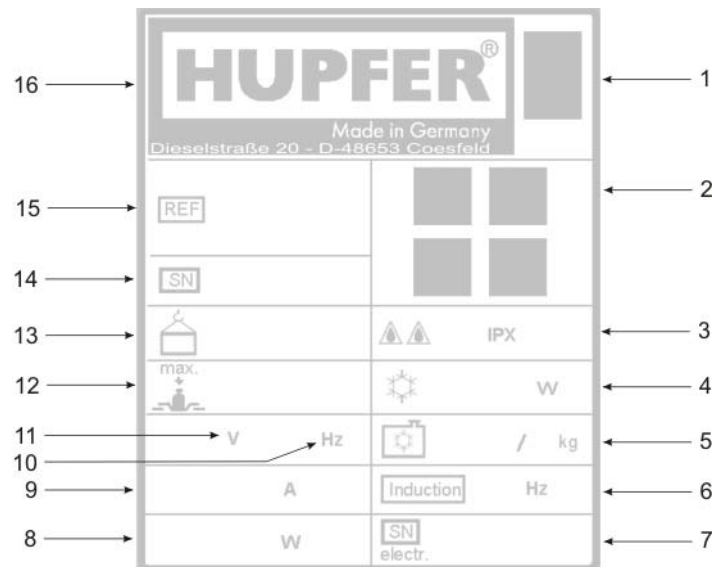
### 3.5 Technical Data

	Dim.	6 StE	9 StE
			
Width	in (mm)	45.3 (1150)	56.5 (1435)
Depth	in (mm)	39.6 (1006)	39.6 (1006)
Height	in (mm)	70.8 (1800)	70.8 (1800)
Tare weight	lbs (kg)	78 (172)	88 (194)
Capacity		1 x transport trolley 6 StE	1 x transport trolley 9 StE
Cupboard compartments	Number	1	1
Hinged doors	Number	2	2

You can find the corresponding certification marks on our homepage at [www.hupfer.de](http://www.hupfer.de).

### 3.6 Rating Plate

The rating plate is arranged on the left side outside on the housing of the pass-through chamber.





**Figure 3** Rating plate

1	Disposal of old appliances	9	Nominal current
2	Certification mark	10	Frequency
3	Protection class	11	Nominal voltage
4	Refrigeration capacity	12	Payload
5	Refrigerant	13	Tare weight
6	Induction frequency	14	Serial number/Order number
7	Electrical serial number	15	Item and brief description
8	Electric power	16	Manufacturer

## 4 Transport, Installation, Initial Operation and Taking out of Service

### 4.1 Transport


<b>ATTENTION</b>	<b>Damage to appliances caused by improper transport</b>
	<p>Appliances should be safely secured when transported off site inside a vehicle such as a truck. If the appliances are not secured properly, there is a risk of damage to property and harm to persons caused by squashing.</p> <p>Secure each individual separate appliance using suitable transport securing devices.</p>
<b>ATTENTION</b>	<b>Risk of colliding and crushing due to improper transport</b>
	<p>During transport, detach any non-fixed components and pack them individually. Dismantle the product into transportable sections, pack the sections in a secure manner and load using suitable lifting equipment.</p> <p>Transport may only be carried out by instructed and trained staff.</p>

When lifting, use only hoists and hoisting gear approved for the weight of the system components.

The pass-through chamber is normally delivered in a fully assembled condition.

The scope of delivery is specified in the shipping documents in accordance with the valid purchase agreement and included with the delivery item.

### 4.2 Assembly and Putting into Operation

<b>ATTENTION</b>	<b>Risk of contamination</b>
	<p>The pass-through chamber is a material lock that strictly separates sterile and non-sterile areas.</p> <p>Pressure equalisation takes place when opening or closing the doors. To prevent contamination, it is essential that the pass-through chamber is installed so that the pressure equalisation opening is located on the unclean side.</p>

The wall opening dimension required for installing the pass-through chamber is based on the building-side installation situation.

The installation and operation of the appliances must only be carried out by the manufacturer or personnel authorised by the manufacturer.

The appliance should be thoroughly cleaned with a soft cloth before putting it into operation for the first time. Ensure that the appliance is clean and dry before putting it into operation.

The following appliance functions must be checked before putting it into operation:

- Function of the Emergency Stop button

<b>INFO</b>	<b>Disposal of packing material</b>
	<p>The packing consists of recyclable materials and can be disposed of accordingly. The different materials should be separated and disposed of in an environmentally friendly manner. The local agencies responsible for disposal must be contacted regarding removal</p>



## 4.3 Storage and Recycling

Appliances must be kept in a dry, frost-free environment when placed in temporary storage. The appliance must be kept covered with a suitable covering material to be protected against dust ingress.

The appliance kept in the storage location must be checked for damages and corrosion every 6 months.

NOTE	Condensation
	Ensure that there is sufficient ventilation and no major variations in temperature in the storage location, so that condensation is prevented from forming.
NOTE	Temporary storage
	Appliances not in use for a longer period should be placed in temporarily storage with their doors open to prevent odours forming in the interior.

Before the appliance is taken back into operation, it must be clean and dry.

If the appliance is required to be recycled, all the operating and auxiliary materials must be disposed in an environmentally compatible manner. Recyclable materials must be properly separated and disposed of in an environmentally compatible manner in accordance with local Waste Disposal Regulations. The local agencies responsible for disposal must be contacted regarding removal. Separate the reusable materials of the appliance before disposal or send the appliance to a recycling centre.

We offer our customers to dispose of their waste appliances. Please contact us or one of our distribution partners.

Packaging and packing material can be sent to the recycling centre by indicating the waste disposal contract number. If you do not have the valid waste disposal contract number, you can request it from [HUPFER®](#)-Service.

## 5 Operation

### ATTENTION

#### Appliance damages



The appliance must only be operated in a technically sound condition and must be inspected for outwards signs of damage and defects prior to each use.

If damage is identified, inform the person or persons responsible immediately. Do not use the appliance.

### ATTENTION

#### Danger of enclosing personnel



Remaining in the interior of the pass-through chamber involves the risk of enclosing personnel if the doors are mechanically blocked or sealed. Remaining in the interior during operation is not permitted.

Do not mechanically block or seal closed doors.

### ATTENTION

#### Material damage resulting from contamination

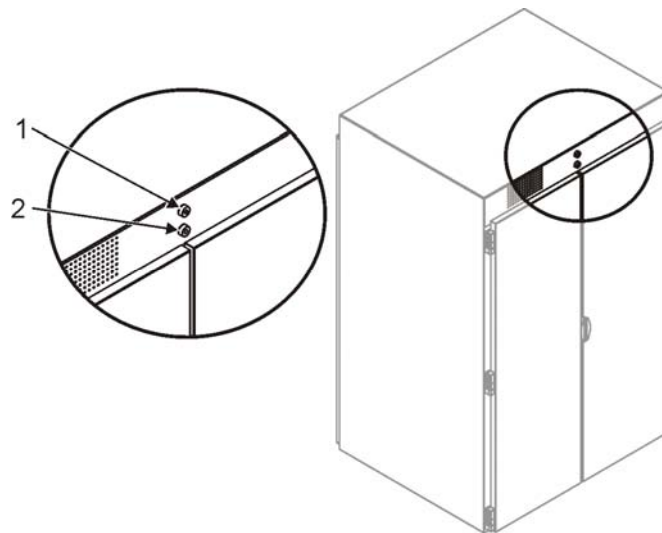


Contamination is a breeding ground for germs that can endanger sterile supply.

To prevent contamination with germs, it is imperative to observe and comply with the regulations and information contained in the Hygiene Directive 93/43/EEC as well as national regulations on hygiene in the country of use.

### 5.1 Arrangement and Function of the Controls

The controls of the pass-through chamber are located on the clean and the unclean side, centrally above the door joint.



**Figure 4** Controls (view of unclean side)

Position number	Control	Function
1	Red indicator light	Information: If the indicator light illuminates, the opposite hinged doors are open
2	Illuminated push-button, green	Enable: After actuating, unlocks the hinged doors lying underneath when the opposite side is closed

## 5.2 Operation

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### ATTENTION



### Damage to property due to improper use

Contamination is a breeding ground for germs that can endanger sterile supply.

After moving in the transport trolley, always check that the hinged doors of the pass-through chamber are correctly closed.

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### Loading the pass-through chamber

- Press the green illuminated push-button to unlock the hinged doors.
- Open the pass-through chamber.
- Move the transport trolley in up to the end stop.
- Close the hinged doors.
- The hinged doors on the clean side can be unlocked if the hinged doors on the opposite side are closed and the green illuminated push-button is lit.
- Press the green illuminated push-button on the clean side.
- Open the pass-through chamber.
- Remove the sterile goods from the transport trolley.

## 6 Troubleshooting and Repair

### 6.1 Instructions regarding Fault Repair

#### DANGER



#### Hazardous electrical voltage

The electrical voltage may be considerably dangerous to limb and life of persons and lead to serious injuries.

All work on the electrical installations should only be carried out by a qualified electrician, or by authorised specialists under the supervision and monitoring of a qualified electrician according to the applicable electro-technical regulations.

The appliances on which inspection, maintenance and fault repairs are performed must be disconnected from the power supply and secured against reactivation when power is not required for such work.

#### ATTENTION



#### Danger of enclosing personnel

Remaining in the interior of the pass-through chamber involves the risk of enclosing personnel if the doors are mechanically blocked or sealed. Remaining in the interior is only permitted for troubleshooting and fault elimination.

During troubleshooting and fault elimination, always fix the open doors in place and secure again closing. Do not mechanically block or seal closed doors.

Servicing should be carried out by authorised specialists only.

Please contact our service partners in the event of a malfunction or complaints within the warranty period. Even after the warranty period has expired, you can have necessary repair work carried out by our service partners and qualified electricians.



Defective components should only be replaced with **HUPFER®** original parts or identical spare parts. Always specify the information and corresponding part number indicated on the rating plate when contacting the after-sales service or ordering spare parts.

Regular inspection and maintenance of the appliance prevent disruptions to operations and ensure safety.

During maintenance and repair work, the pass-through chamber must be disconnected from the energy supply and secured against being switched back on.

## 7 Cleaning, Care and Maintenance

### 7.1 Safety Measures

<b>ATTENTION</b>	<b>Danger of enclosing personnel</b>
	<p>Remaining in the interior of the pass-through chamber involves the risk of enclosing personnel if the doors are mechanically blocked or sealed. Remaining in the interior is only permitted for cleaning and maintenance work.</p> <p>During cleaning and maintenance work, always fix the open doors in place and secure against closing. Do not mechanically block or seal closed doors.</p>
<b>ATTENTION</b>	<b>Material damage resulting from contamination</b>
	<p>Contamination is a breeding ground for germs that can endanger sterile supply.</p> <p>To prevent contamination with germs, it is imperative to observe and comply with the regulations and information contained in the Hygiene Directive 93/43/EEC as well as national regulations on hygiene in the country of use.</p>

### 7.2 Hygiene Measures

It is essential for operating staff to act in the correct manner to ensure optimal hygiene.

All persons must be informed about the locally valid hygiene regulations, observe them and comply with them.

### 7.3 Cleaning and Care

If the pass-through chamber is handled with care, cleaned and maintained on a regular basis, it does not require any additional care measures.

For regular cleaning, wipe the pass-through chamber with a soft cloth or use a non-coated sponge. Use degreasing liquid cleansers that are approved for food industry. Never use chloride-containing cleaning agents, abrasive cleaning powder or other dry cleaning agents, steel wool, steel sponges and/or sharp-edged items.

#### 7.3.1 Cleaning and Care Measures

Cleaning and care measures	Action	daily	weekly	monthly	as specified
Interior of the pass-through chamber	clean	x			
Interior of the pass-through chamber	disinfect				x

## 7.4 Special Care Instructions

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Resistance to corrosion in stainless steel is provided by a passive layer which is formed on the surface when oxygen is absorbed. The oxygen in air is sufficient to form the passive layer, so that damage caused by physical action is eliminated automatically.

The passive layer develops or is renewed more quickly when the steel comes into contact with water containing oxygen. The passive layer can be chemically damaged or breached by agents which have a reducing (oxygen-consuming) effect when they come into contact with steel at concentrated levels or at high temperatures.

Such aggressive substances include:

- substances containing salt and sulphur
- chlorides (salts)
- seasoning concentrates (e.g. mustard, vinegar essence, seasoning cubes, saline solutions)

Further damages can occur due to:

- extraneous rust (e.g. from other components, tools or rust film)
- iron particles (e.g. grinding dust)
- contact with non-ferrous metals (element formation)
- lack of oxygen (e.g. no admission of air, low-oxygen water).

General working principles for handling appliances made of "refined stainless steel":

- Always keep the surface of appliances made from stainless steel clean and open to air.
- Use cleaning agents suitable for stainless steel. Never use bleaching cleaning agents or any containing chlorides.
- Remove layers of lime scale, grease, starch and egg-white by cleaning daily. Corrosion may occur underneath these layers due to lack of air absorption.
- After each cleaning operation remove all cleaning agent residues by wiping thoroughly. The surface should be thoroughly dried after wiping.
- Do not bring parts made of stainless steel into contact with substances such as concentrated acids, seasonings and salts for longer than is absolutely necessary. Acid fumes emitted when tiles are cleaned also cause corrosion in "refined stainless steel".
- Avoid damaging the surface of the stainless steel, especially by bringing into contact with metals other than stainless steel.
- Residues from other metals produce extremely small amounts of chemical elements which can cause corrosion. Contact with iron and steel must be avoided at all costs, because it will cause extraneous rust. If stainless steel comes into contact with iron (steel wool, steel particles from pipes, water containing iron), this can trigger corrosion. You must therefore use refined steel wool or brushes with natural, plastics or refined steel bristles only for physical cleaning. Steel wool or brushes with unalloyed steel cause extraneous rust due to abrasion.

## 8 Spare Parts and Accessories

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Servicing should be carried out by authorised specialists only.

Defective components should only be replaced with **HUPFER®** original parts or identical spare parts. That is the only way to guarantee a safe operation. We must inform you that a perfect functionality of the appliance can only be ensured if you use recommended original parts by **HUPFER®**. Unsuitable or partially suitable spare parts can void the warranty.

Spare parts and accessories can be ordered at **HUPFER®**-Service. When ordering spare parts or in the event of after-sales service always specify the order number and specifications on the rating plate of the transport trolley.

### 8.1 Spare Parts and Accessories List

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091146398	Reed sensor	magn. 1S for bore Ø 0.3" (8)
091093370	Emergency Stop button	Ø22 1S/1Ö Ø55/H33.2 V01
091060627	Indicator light	Red CNS Ø22 LED BA9.5 V01
091057865	Illuminated push-button	Green CNS Ø22 1S/1Ö V01