

Translation of the original



Operating Manual Display Cases with heating climate or dry heat



# Notes regarding this operating manual

This operating manual is valid for display cases with heating climate and dry heat built-in units and individual built-in units regardless of the various possible versions with regard to standard and gastronorm dimensions. Built-in units must be clad in accordance with the technical requirements prior to starting up.

The possibilities shown in this operating manual represent the majority of versions. However, many other versions of our products are available through special designs.

## NOTE

Please observe any supplementary sheets to this operating manual and declaration of conformity! For more information, contact our customer service department.

# Operating and installation manual

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Document:	OM_Heated_display_cases_24A
Revision:	24A
Valid from:	January 2024
Document number:	TD-AKE-00001202



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## 01 Display cases with heating climate and dry heat GENERAL INFORMATION AND SAFETY

# 1 GENERAL INFORMATION AND SAFETY

## 1.1 FOREWORD

Thank you for choosing one of our units. This products meets the highest technical requirements with practical ease of use. Your unit is a state of the art product when it comes to occupational health and safety for the commissioning staff, operators and users.

Improper use could cause the unit to pose hazards. We will point out dangers in section 1 and using safety instructions in the entire document.

The safety information and instructions in this document must be complied with! Anyone who installs, starts up or operates the unit must have this document available and must have read and understood it.

Our unit requires proper installation, commissioning, operation and care. A failure to comply with the aforementioned points can void guarantee, warranty and product liability claims, but also cause damage and a lack of safety.

Always keep this document complete and in a legible condition. If required, request it from your supplier or owner, or download it from the manufacturer's website at www.ideal-ake.at.

## NOTE

The manufacturer is not liable for technical or printing errors in this document and will also not accept liability for any damages caused directly or indirectly by delivery, performance or usage of this document

### NOTE

The manufacturer reserves the right to change specifications and designs as part of it continuous product improvement process.

#### NOTE

Please observe any supplementary sheets to this operating manual and the corresponding declaration of conformity!

For more information, contact the manufacturer!



## 1.2 FLEXIBILITY



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## Display cases with heating climate and dry heat GENERAL INFORMATION AND SAFETY





## 1.3 AREA OF APPLICATION

This operating manual applies to the following display cases with heating climate or dry heat and attributable special models:

#### DISPLAY CASES WITH DRY HEAT

Hot Storage WU-aaa bbb Abbreviations: aaa: Number between 78 and 146 bbb: blank or PRO (for protruding installation on the customer side)

Heating Tower aa-58 bb cc Abbreviations: aa: WT (heating tower) bb: blank or KL (flap) cc: RG (back wall closed)

W aaa-bbb-cc dd ee fff gg hh

#### Abbreviations:

aaa: blank or AE (heated counter top displays) or G (closed) or GE (closed squared) or GS (10° closed oblique) or GR (closed round) or KOR (customer side open round) or KOE (customer side open squared) or KOS (customer side open 10° oblique) bbb: Number between 41 and 146 (unit width)
cc: Number between 45 and 70 (unit height)
dd: blank or EC (Easy Change)
ee: blank or KL (flaps)
fff: blank or PRO (for protruding installation on the customer side)
gg: blank or HOT MARIE
hh: RG (back wall closed)

#### WB~HS a-bbb-45 c

#### Abbreviations:

a: blank or E- (straight glass)bbb: Number between 1/1 and 6/1c: blank or D (double-curved glass)

#### Heating plate HP aa bb (with WB HS)

Abbreviations: aa: GN or blank bb: Number between 1/1 and 6/1 or number between 41 and 146 (unit width)

#### Hot Marie HM aa bb

Abbreviations: aa: GN or blank bb: Number between 1/1 and 6/1 or number between 41 and 146 (unit width)

## 01 Display cases with heating climate and dry heat GENERAL INFORMATION AND SAFETY

#### DISPLAY CASES WITH HEATING CLIMATE

FOODSTATION Hot Flaps aa Abbreviations: aa: Number between 70 and 87 (unit height)

Heating Tower aa-58 BASIC Plus Abbreviations: aa: WT (heating tower)

BASIC aaaa b-ccc-dd eee Abbreviations: aaaa: Blank or PLUS b: E (squared) or S (oblique) ccc: Number between 44 and 146 (unit width) dd: Number between 45 and 70 (unit height) eee: blank or PRO or Slide in or Drop in

# **COMFORT** a-bb-cc ddd **Abbreviations:**

a: S (oblique) or E (squared) bb: Numbers between 78 and 146 (unit width) cc: Number between 53 and 70 (unit height) ddd: Blank or Slide In

Vario Food Counter Hot aa bb Abbreviations: aa: 82 (unit width) bb: UB (base with heating cabinet)

#### System base aaa

Abbreviations: aaa: Number between 44 and 146

## NOTE

Dimensions and weight specifications for the units are specified in the order and vary according to requirements. For detailed information, contact the owner, your supplier or our support department (see section 1.5).

## NOTE

Note that lifting the unit requires at least two people and, from a certain weight (>60kg), or "3/1" Unit sizes, at least four people are required. Call a second person as a marshaller for installation.



## 1.4 WARRANTY AND LIABILITY

Our "General terms and conditions" (T&C), as well as customer specific payment and delivery conditions apply. Warranty and liability claims for personal injury and damage to property are not possible if they are attributable to one of the following reasons:

- Improper use of the unit;
- Transport damage;
- Operating the unit with faulty safety components or safety components that have not been installed properly and are not functional;
- A failure to comply with the instructions in this operating manual regarding installing, commissioning, operating, maintaining and assembling the unit correctly;
- Unauthorised mechanical or technical modifications to the unit;
- Deficient maintenance of consumables and wear parts;
- Unauthorised repairs;
- Using aggressive or corrosive cleaning agents;
- Natural disasters or force majeure;

Furthermore, liability is also rejected for:

- Glass breakage, breakages on plastic components, seals or lighting.
- Any damage that can be proven to be caused by an unqualified person adjusting the heat controller incorrectly.
- Damage or malfunctions due to assembling the unit incorrectly after cleaning, maintenance or servicing.

### NOTE

A failure to comply with the specified instructions can void the warranty!

#### NOTE

If malfunctions occur, switch the unit off and report this to your supplier or the manufacturer immediately.

## 1.5 MANUFACTURER / SUPPORT

Contact your supplier or the manufacturer in the event of technical queries:

#### AKE Ausseer Kälte- und Edelstahltechnik GmbH

Pichl 66 A-8984 Bad Mitterndorf, Austria T: +43 3624 21100 - 0 F: +43 3624 21100 - 33 E: office@ake.at W: <u>www.ideal-ake.at</u>



## NOTE

Always have your unit's serial number available when contacting the support department. You can find this on the type plate or the "AKE checked" sign (see section 1.7).

### 1.5.1 FURTHER CONTACT DATA FOR QUERIES/REPAIRS

Technical support (phone)	+43 3624 21100 - 0
Technical support (e-mail)	office@ake.at
Orders / spare parts (e-mail)	webshop@ake.at
Web shop / spare parts (online catalogue)	https://shop.ideal-ake.at/ersatzteilshop/
Minimum warranty duration	See the contractual agreement / AKE T&C

## 1.6 SYMBOLS AND SIGNAL WORDS USED



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## DANGER

#### Immediate danger of death for people

A safety instruction with the DANGER signal word indicates an immediate danger of death and health damage. A failure to comply with these safety instructions can cause death or serious injuries.

## WARNING

#### Danger of personal injury (serious injuries) and potential further damage to property

A safety instruction with the WARNING signal word indicates a dangerous situation that may affect people's health. A failure to comply with these safety instructions can cause serious injuries.

## CAUTION

#### Danger of personal injury (minor injuries) and potential further damage to property

A safety instruction with the CAUTION signal word indicates a potentially dangerous situation. A failure to comply with these safety instructions can cause minor injuries.

## NOTE

This symbol with the Note remark refers to supplementary information for installation, operation, maintenance and servicing. A failure to comply with these instructions can cause damage to property.

### Display cases with heating climate and dry heat GENERAL INFORMATION AND SAFETY

## 1.7 LABELLING



Example illustration



The unit is marked clearly through the contents of its type plate. The type plate is on the controller's cover or on the base near to the control box.

The unit is also marked with the AKE test seal. The AKE test seal is located on the base or the control unit (depending on the model).

### NOTE

If installing the unit makes it no longer possible to access or read the type plate, an additional type plate is enclosed with every delivered unit. It must be attached to the unit so that it is accessible and legible in order to ensure that the unit can be identified clearly.

### NOTE

General technical specifications are provided in section 2.3. Due to the wide range of models, further technical data is provided on the type plate and in the order specification.

## 1.8 GENERAL SAFETY INSTRUCTIONS

The following safety regulations and obligations apply to handing the unit in general:

- Covers with warning notices may only be opened by authorised specialists.
- The bottom and rear of the unit must not be cleaned using a water jet.
- Protective covers and safety devices must not be removed, as there is otherwise a risk of injuries.
- The controller may only be opened by authorised specialists.
- Flowing air in the unit's vicinity due to improperly installed ventilation (e.g. air conditioning units) or draughts must be prevented in order to ensure that the unit functions properly.
- The ambient temperature is not permitted to exceed +25 °C and the relative ambient humidity must not exceed 60 %.
- The unit is not suitable for operation in entrances and outdoors.
- Protect the unit from direct sunlight.
- For each storage area, the products brought in for presentation must be pre-heated and have a core temperature that corresponds to the required temperature.
- Sharp items must not be stored loose in the unit, as there is otherwise a risk of injuries.
- All glass attachments must be handled with appropriate care in order to prevent injuries due to glass breakages.
- Components and equipment may only be replaced with original spare parts.
- Do not store any flammable or explosive products in the unit or in its vicinity.
- The unit must be clad sufficiently during assembly or installation in order to ensure that live parts cannot be touched.
- The installation vicinity must be stable in order to withstand the daily strains.
- All cladding that is installed during installation must not be able to be removed without tools.
- The unit must be inspected for loose connections, shearing points and damage after cleaning, maintenance and servicing. Any faults found must be rectified immediately! Do not use the unit for unintended purposes!
- Pushing and moving the unit (during operation) is not permitted. Units must be lifted for transport or relocation (depending on the model).
- Valid for units with a heat area: Ensure that there is enough distance between packaged foodstuffs and heat radiators (supplementary heat) there is a risk of fire.

#### NOTE

Technical modifications to the unit may only be made by authorised specialists! This applies particularly to work on heating installations, the electrical installation and the mechanical system.

All modifications must be authorised by your supplier or the manufacturer!

## 01 Display cases with heating climate and dry heat GENERAL INFORMATION AND SAFETY

## 1.9 PROPER USE

The units are designed especially for installation in food and serving counters, as standalone units or for multi-unit installation (e.g. unit island).

Depending on the unit type (product area), they are suitable for keeping food and drinks warm (heating mode) and displaying them at controllable temperatures (see the catalogue and the website). The units are only used to keep food hot but not to warm up or cook food.

#### Ensure the following prior to switching on and switching off:

The units must be complete. All covers and doors provided must be installed and closed during operation. The covers and doors may only be opened for a short time to insert and remove products. The unit is a built-in unit or a standalone unit and must be closed or built in on all sides of the base. Unit stability must be guaranteed and tipping prevented by correct installation in accordance with section 2.5.

In order to save energy, we recommend switching the units off when not in use outside of opening hours. Wait until the required temperature has been reached before filling the units.

#### NOTE

All of the manufacturer's specifications must be complied with. These specifications include the ambient temperature, conditions in the installation environment and connections to be used.

Proper use also includes observing the installation and operating manual, as well as complying with inspection and maintenance conditions. Any other use requires written approval from the manufacturer.

Improper use can pose risks to people and cause the system / unit to be damaged.

A control is used to operate the relevant product area, and this control may only be used after reading and understanding the documentation. If the unit is stopped or taken out of service, the points in section 1.8 must be complied with.

Furthermore, a failure to comply with the proper use renders liability and warranty claims void. The unit may only be operated under the usage conditions prescribed in the operating manual.



## 1.10 TARGET GROUP AND PREVIOUS KNOWLEDGE

This documentation is aimed at operating staff in gastronomy (e.g.: hotel chains, restaurants, catering), as well as the installation staff. The unit is only operated by trained staff that must be designated by the owner.

Ensure that the operating staff meet the following prerequisites:

- The operators must not have any vision impairments, as they must be able to read the safety instructions on the unit and the instructions in the documentation without problems.
- Reading and understanding this documentation is a prerequisite. The current applicable regulations regarding occupational health and safety, and accident prevention must be complied with.
- Only trained staff may operate and clean the unit. Only specialist staff authorised by the manufacturer may perform maintenance and repair work.
- Always observe the locally applicable commercial and safety-related regulations.

The owner must take the following measures to acquire the knowledge required to operate the unit:

- Product training
- Regular safety training

## 1.11 REASONABLY FORESEEABLE MISUSE

The units may not be used as follows:

- No foods may be warmed up or cooked. The unit may only be filled with foods that have the prescribed core temperature (of +85 °C).
- Operating outside the specified temperature range is not possible safely, see the catalogue and the website.
- No ventilation slots are permitted to be blocked or covered. Foodstuffs may not touch the unit's walls or block the air flow (e.g. Hot Vario units).
- The unit must not be used outside buildings. Protect the unit from direct sunlight.
- Units for foods such as seafood, fish and mussels, or similar must be designed with a higher grade steel quality (V4A or AISI 316) or equipped with suitable GN dishes / containers.
- Glass covers and shelves may not be used as climbing aids or for storage.

## 1.12 RESIDUAL RISKS

Despite taking extreme care when designing and building the units and even if all safety-relevant circumstances are considered, there may still be residual risks that are evaluated in a risk assessment. This section lists all residual risks and safety instructions from the risk assessment.



#### DANGER

#### Danger due to electrical voltage on live components.

Cleaning, assembly, commissioning, dismantling and repair work on electrical components may only be performed by trained specialists when the unit has been de-energised. To do this, unplug the unit or disconnect it from the mains at all poles.



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### WARNING

#### Risk of crushing when inserting or moving the units in the counter opening/recess

Pay attention to the risk of crushing, also for third parties, when inserting the units. The units may only be lifted manually by at least four people. These people must be strong enough to carry the units. Pushing or moving the unit is not permitted! Call a second person as a marshaller if necessary. Wear protective gloves and safety shoes when performing assembly and loading work.

## WARNING

# Risk of crushing and danger due to falling objects when handling/adjusting/positioning heavy individual components

Pay attention to potential risks of crushing, also for third parties, when handling heavy objects. Use both hands if possible when handling heavy objects. Call a second person to assist if necessary. Wear protective gloves and safety shoes when handling/adjusting/positioning heavy individual components.

## WARNING

#### Risk of crushing/cutting when moving the sliding or swing doors

Only use the handles provided to open and close the sliding doors. Do not reach between the side parts of the sliding door and the unit when closing the sliding doors. Do not reach between the bottom of the angle trim and the top of the sliding door. Ensure that the angle trim is installed and screwed on properly. This also applies to swing doors. Be careful when handling glass.

## WARNING

#### Risk of crushing/cutting when moving the cover and front glass

Use the small handle bar provided to lift the cover glass. Two people are required to open the cover or front glass. Close the cover glass and front glass carefully and pay attention to risks of crushing on the cover glass and front glass. Be careful when handling glass.



## WARNING

#### Various dangers when disposing of damaged parts/components

Wear protective gloves when disposing of damaged parts/components. Dispose of damaged parts/components properly and in an environmentally friendly manner. Country-specific laws must be observed.



## WARNING

#### Electrical hazards

Ensure that the mains connection line to the units is not damaged. In the event of damage, have this replaced by authorised specialists in order to prevent hazards.



## WARNING

#### Risk of tipping on uneven or unstable foundations

The base/foundation onto which the unit is installed must have sufficient stability and be able to bear the unit's weight at all times.

WARNING

#### Risk of crushing and falling parts when moving the unit

Pay attention to moving parts such as doors, discs, etc. when handling the unit. This applies particularly to the larger versions of the unit.

## WARNING

#### Risk of burns on heating elements on the heating units

Switch the unit off and allow it to cool for at least 45 minutes before you start cleaning work.

### CAUTION

**Impact hazard on the units during assembly, cleaning and servicing work** Pay attention to possible impact hazards on the unit.

## CAUTION

#### Trip hazards in the entire unit area

Pay attention to possible trip hazards due to cables/lines that are on the floor. The owner must lay lines and cables safely so that there is no trip hazard.



## CAUTION

**Risk of slipping if water has spilled (units with a heating climate)** Use the top-up vessels supplied and remove any spilled water.

## 1.13 PERSONAL PROTECTIVE EQUIPMENT

The following personal protective equipment must be worn during assembly, dismantling and servicing work:



Wear safety shoes when performing assembly and loading work.

Wear protective gloves when performing assembly and loading work.



Wear safety goggles when disposing of damaged parts/components.

Wear a hard hat when performing assembly, lifting and loading work.

### NOTE

Wear appropriate protective equipment when cleaning the unit. This must comply with that prescribed by the manufacturer of the cleaning agent used. Protective gloves must be worn during any cleaning work inside the unit.

## 1.14 TRANSPORT AND PACKAGING

#### NOTE

All units may only be transported and stored in the usage position (horizontally). Furthermore, all safety instructions according to section 1.8 must be complied with.

The packaging design depends on the quotation and the packaging is designed individually according to the agreements. Units are transported in wooden cladding as standard. This cladding protects the units from serious damage. Glass shelf supports are secured with L-shaped transport locks on the left and right. Glass components are wrapped in additional packaging material. Moving parts and glass shelves have an additional sleeve with packaging material. All parts are position and stuck in place inside this wooden cladding to ensure that they are secure for transport.



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### WARNING

#### Danger due to falling objects and suspended loads when transporting the units and their components

Use sufficiently-sized lashing and clamping gear. Pay attention to the permissible vehicle regulations when securing the load. Legal, country-specific traffic regulations must be complied with. Load lifting equipment used, such as forklifts must be sufficiently large. When performing lifting work, ensure that no other people remain below loads transported at heights. The unit may only be transported upright (in the usage position).

## WARNING

# Risk of crushing on fixed components (walls, other machines) when positioning the units and risk of crushing between the pallet and the foundation when setting down

Keep yourself and other people away from hazard points. Call a second person as a marshaller if necessary. Pay attention to the risk of crushing for third parties when setting the units down. Wear protective gloves, safety shoes and a hard hat when performing assembly and loading work.

## WARNING

#### Danger due to falling objects when lifting and unpacking the units

Pay attention to potential risks due to wooden parts folding out when removing the wooden cladding. Call a second person to assist if necessary. The unit must be lifted using a suitable load lifting device such as a forklift. The unit may only be lifted manually by at least four people. These people must be strong enough. Wear protective gloves, safety shoes and a hard hat when performing assembly and loading work.

If the unit is to be returned, it must be returned in the original packaging or packed properly for transport in a similar way. Furthermore, the unit must be returned unused, undamaged and complete. The customer must request and pay for the return. For information on proper disposal of the packaging material, see section 1.15.

#### NOTE

All units may only be transported and stored in the usage position (horizontally). In order to be able trace damage during loading, transport and unloading, all units are equipped with a "Shockwatch ® 2". This tool enables the point in the supply chain at which a product has been damaged to be determined in order to clarify transport damage. For information on the ShockWatch ® concept, see the website.



### 1.14.1 STORAGE BEFORE COMMISSIONING

If the unit is not to be installed / used immediately after delivery, the following instructions for intermediate storage must be followed:

- Store the unit in a dry, well-ventilated room and never outdoors.
- Do not remove or damage the original packaging.

## 1.15 DISPOSAL



#### WARNING

#### Various dangers when disposing of damaged parts/components

Wear protective gloves when disposing of damaged parts/components. Dispose of damaged parts/components properly and in an environmentally friendly manner. Country-specific laws must be observed.

### NOTE



Please note that some of the unit's components are electronic parts. Disposal through public waste disposal authorities is therefore not possible. Check your obligations in accordance with the national WEEE regulations. Correctly sorted disposal is always obligatory. This also applies to packaging, films, glass, plastics, etc.

2 TECHNOLOGY

## 2.1 DEFINITION OF COMPONENT TERMS (DRY HEAT)

# **OPERATOR SIDE**



# CUSTOMER SIDE



NO.	DESIGNATION		
1	Cover glass		
2	Controller display		
З	Side glass (right serving side)		
4	Base tray		
5	Right swing door, "mirror effect" (mirrored with spy glass) and easy-clean (removable)		
6	Right swing door, "mirror effect" (mirrored with spy glass) and easy-clean (removable)		
7	Lighting rack (including LED and supplementary heat)		
8	Lighting rack (including LED and supplementary heat)         Front glass         (with handle bar, with gas pressure absorber depending on the model)         Various versions available:         -       Easy Change function (option of open or closed mode)         -       Front glass         -       Removal flap (soft-close)		
9	Black glass plate (including heating plate)		
9	שמטת שומפש שומנפ (וו וטוטטוו וש וופמנוו וש שומנפ)		



## 2.2 DEFINITION OF COMPONENTS (HEATING CLIMATE)

**OPERATOR SIDE** 



# CUSTOMER SIDE



NO.	DESIGNATION		
1	Cover glass		
2	Controller display		
3	Side glass (right serving side)		
4	Base tray		
5	Right swing door, "mirror effect" (mirrored with spy glass) and easy-clean (removable)		
6	Cutting board (removable) with integrated fold-up mirror		
7	Inspection flap		
8	Left swing door, "mirror effect" (mirrored with spy glass) and easy-clean (removable)		
9	Lighting rack (including LED and supplementary heat), for details, see the "Heating climate cross-section" section,		
	Front glass (with handle bar, with gas pressure absorber depending on the model) Various versions available: - Easy Change function (option of open or closed mode) - Removal flap (soft-close)		
11	GN dishes (not supplied as standard)		

Display cases with heating climate and dry heat TECHNOLOGY

02

## 2.2.1 SECTIONAL DRAWING (UNITS WITH HEATING CLIMATE)



NO.	DESIGNATION			
1	LED lighting			
2	Supplementary heat (radiator)			
3	Bain-marie with float Field Field Variants for filling the bain-marie: • Easy filling (with measuring jug) • Easy filling (with measuring jug) • Technology box and/or water tank (Nickel-chromium steel riser pipe and filter)			
4	Heating elements			
5	Folding primary heat plate (incl. gas pressure absorber)			

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## 2.2.2 HEATED BASE (Hot Storage model)



# **OPERATOR SIDE**



NO.	DESIGNATION		
1	Control display		
2	Additional compartment for GN dishes (only for model size 4/1, GN dishes not supplied as standard)		
3	Installation compartment – cover		
4	Drawer (optional for swing door basic models)		
5	Steering and fixed-position casters with locking mechanism (optional)		
6	Levelling feet		
7	Dehumidification opening (controllable)		
8	Heating plate (HP) position		
9	Hook-in frame for GN dishes with dividing bar (depending on the model)		
10	Holders for hook-in frame (height adjustment)		
11	Swing doors		

## 2.2.3 LAYOUT OF HOOK-IN FRAME



NO.	DESIGNATION		
1	Support for GN dishes		
2	Tilt protection		
3	Base frame		
4	Hook-in lug		
5	Cross beam		
6	Hook-in aid		



Display cases with heating climate and dry heat TECHNOLOGY

## 2.3 TECHNICAL SPECIFICATIONS

Protection class	Protection class I, earthing	EN 61140
Power data	According to the type plate or the <ul> <li>Website</li> <li>Catalogue</li> <li>Quote / order specification</li> </ul>	
Materials	<ul> <li>Stainless steel</li> <li>1.4301 (well, structure)</li> <li>1.4016 (machine slot/outer sheath)</li> <li>1.4404 (special design)</li> </ul>	
<ul> <li>Primary heat</li> <li>Supplier components</li> <li>Primary heat</li> <li>Supplementary heat (radiator)</li> <li>Gas pressure absorber (depending on the model)</li> <li>Glass (depending on the model)</li> <li>Electrical cables and assembly materials (cables, cable ties, etc.)</li> <li>Control box (board, display, etc.)</li> <li>Lighting (depending on the model)</li> </ul>		
Insulation material	INSULFRAX® mat	
Glass	<ul> <li>Single-glazed safety glass (6mm, 8mm)</li> <li>Insulated glass (16mm)</li> </ul>	EN12150-2:2004

The products listed in section 1.3 contain the following light sources (if installed):

LED bulbs (2050K): Energy efficiency class G (valid for heat lamps)

LED bulbs (2700K): Energy efficiency class F (valid for heat lamps)

### NOTE

Thanks to the use of high quality materials and supplier components with a long service life, regular care and maintenance ensures a long service life.

## NOTE

Dimensions, product presentation areas, the unit's layout may differ from the specified dimensions due to special designs and are defined specifically for each order. Contact your supplier, specialist dealer or customer service for further details.

## 2.3.1 SERVICE LIFE

#### NOTE

Thanks to the use of high quality materials and supplier components with a long service life, regular care and maintenance ensures a long service life.



## 2.4 SAFETY INSTRUCTIONS ON THE UNIT

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Safety instructions are installed on the unit, which must be followed at all times. If the safety signs fade or get damaged over the unit's lifetime, they must be replaced with new signs immediately. They must be checked for legibility and completeness on a regular basis.

PICTOGRAM	DESCRIPTION	PICTOGRAM	DESCRIPTION
	Warning of electrical hazards	A WARNING           Hot surfaces inside           • Be careful when handling products           • Keep combustible products away from heating elements	Warning of hot surfaces
	Protection class I, earthing		



Display cases with heating climate and dry heat TECHNOLOGY

### 2.4.1 ELECTRICAL NOTES

The units are completely electrically equipped and installed (the product can be prepared for customer-provided controllers / electrical systems based on the special design according to the order specification).



#### DANGER

#### Danger due to electrical voltage on live components

The electrical connection must be established by authorised specialists and comply with the applicable standards, regulations and safety regulations.

#### Connecting the unit

The units are delivered with a 3 metre connection cable with safety plug as standard.

The unit is connected to an alternating current mains with a rated alternate current of 230 volts and a frequency of 50 Hz (with 115 V, 60 Hz, 120 V, 60 Hz, 220-240 V, 50-60 Hz depending on the country). Every electrical supply line must be fused to 16 A (tripping characteristic C).

#### The owner must ensure the following electrical connections at all times:

Units with 230 V, 50/60 Hz (single phase): 1 x 16 A Units with 400 V, 50/60 Hz (three phase): 3 x 16 A

#### NOTE

#### A thee-pole main switch must be provided by the customer for units with 400 V.

Not supplied as standard.

For more information, see the unit's circuit diagrams.

#### Ability to disconnect from the mains

If a plug connection to the mains connection is used, the socket must be easily accessible in order to be able to disconnect the unit from the mains if required (cleaning, maintenance work). If direct wiring is used, the ability to disconnect the unit from the mains if required must be provided.



#### DANGER

#### Danger due to electrical voltage on live components

The mains voltage and mains frequency must comply with the values specified on the type plate. Connection to different voltage, current type or frequency is not permitted. The applicable local safety regulations must be observed.

The unit manufacturer is not liable for damage caused by improper connection.



## 2.5 ASSEMBLY AND INSTALLATION INSTRUCTIONS

This section provides you with important information about installing and using the unit.

#### 2.5.1 FIRST STEPS

#### Handover

Check the unit for transport damage and note any damage / faults discovered on the handover documents from the carrier, as well as on their form, and have the damage confirmed.

#### NOTE

In order to be able trace damage during loading, transport and unloading, all units are equipped with a "Shockwatch®2". This tool enables the point in the supply chain at which a product has been damaged to be determined in order to clarify transport damage. For information about the ShockWatch® concept, contact the manufacturer.

If the damage only becomes visible after unpacking the unit, you are obliged to declare this immediately in writing. Advanced notice to your supplier by phone is advisable. You require the following to remove the transport packaging:

- At least two people
- Tools:
- Electric screwdriver or Phillips screwdriver
- Cutting tools (scissors or knife)

#### NOTE

If you do not report transport damage in good time, your claims for damages are void (in accordance with the T&C).

## 2.5.2 INFORMATION REGARDING THE INSTALLATION LOCATION

All installation location requirements in accordance with section 1.8 must be followed in order to guarantee efficient and safe operation.

### NOTE

Correct installation and fault-free functions are the prerequisite for starting the unit up. Installation must comply with the local electrical, safety and hygiene regulations.



#### WARNING

#### Risk of the unit tipping on uneven and unstable foundations

Ensure that you only set the unit up on level and sufficiently stable foundations. Otherwise, the unit may topple or parts of the unit could fall down, or open unintentionally (drawers, swing doors, etc.)

02

Display cases with heating climate and dry heat TECHNOLOGY

### 2.5.3 ASSEMBLING THE UNIT

You require the following to install the unit:

- At least two people
- Tools:
  - Adjustable spanner or pipe tongs (for units with bases)
  - Spirit level
  - Potential special tools for heating installations

The assembly staff are responsible for the unit's stability. Ensure that furniture covers and counters are prepared according to the technical specifications. The size of the installation opening is specified in the "Technical data" for the relevant product group in the current product catalogue, on the manufacturer's website or in the order specification. Protect the unit and base surfaces from any damage during installation.

#### NOTE

The base must be horizontal in order to enable the condensation to flow away. Test whether the water inside the well can also flow away.

All work, installation, deliveries and services may only be performed by authorised specialist companies and specialist staff. Electrical connections may only be established by an authorised specialist. You must ensure that suitable staff and tools are used in order to prevent damage and injuries.

#### INSTALLING THE UNIT AT MORE THAN 2000 m ABOVE SEA LEVEL

The unit is intended for use up to 1500 m above sea level.

If the unit is being used at more than 1500 metres above sea level, pressure relief must be provided for insulated glass in order to prevent damage to the glass! All insulation glass is delivered WITHOUT pressure relief as standard. For more information, contact your service partner or the manufacturer.

#### NOTE

The manufacturer is not liable for any damage to the unit or components (e.g. glass breakages, etc.) if assembled incorrectly or in the event of additional changes required (e.g. pressure relief) due to specific ambient parameters for the unit.



## 2.6 INSTALLING THE CONTROL HOUSING / DISPLAY

The control housing (including the controller and the display) is attached to the unit's base (standard design). Each controller comprises the display (control panel) and the power electronics (circuit board), which is installed in the control housing. The display is connected to the power electronics internally via a cable. The control panel can be removed and installed in the front of the furniture (depending on the model).

#### NOTE

Different controllers (heat controllers) can be installed according to the unit type. The enclosed operating manual for the controller must always be observed.

## 2.6.1 INSTALLING THE STÖRK CONTROL DISPLAY (ST122, ST501)

#### Possible versions of the STÖRK control display:

#### ST122



ST501



Required recess to install the display: 35 mm x 105 mm (LxH)

The control panel is connected to the power electronics using a 1.5 m data cable as standard (> 2 m data transfer is incorrect).

Required recess to install the display: **87.5 mm x 56.5 mm (LxH)** 

## 2.6.2 INSTALLING THE CAREL IJF CONTROLLER

Some units are equipped with the Carel IJF heat controller.

The control display is wired / installed permanently in the unit. Upon request, this controller can be installed in the front of the furniture using optional accessories.



Required recess to install the display: 29 mm x 71 mm (LxH)

## 2.6.3 INSTALLING THE IDEAL-AKE STK CONTROL DISPLAY

#### Display in control housing



*Example illustration* Display mounting in metal panel / flush-mounted



Example illustration

#### **Display mounting in shoring**



Example illustration

The display is installed in the control housing as standard and connected to the power electronics (circuit board) with a 1.5 m long CAT5 cable Required recess to install the display:

96 mm x 61.4 mm (LxH)

The display can be installed in the furniture panel on request (possible length of the connecting cable up to max. 5 metres).

Required recess to install the display (attached): 96 mm x 61.4 mm (LxH)

Additional cut-out required to install the display (flush)  $\rightarrow$  Chamfer milling:

103.2 mm x 68.1 x 3.5 mm (LxHxD); corner radius: 5.5 mm

# For information about installing the display, contact the manufacturer.

The display can be installed in the counter panel on request (possible length of the connecting cable up to max. 5 metres).

Required recess to install the display (attached): 96 mm x 61.4 mm (LxH); corner radius max. 3 mm

Additional cut-out required to install the display (flush)  $\rightarrow$  Chamfer milling:

103.2 mm x 68.1 x 3.5 mm (LxHxD); corner radius: 5.5 mm

For information about installing the display, contact the manufacturer.



## 2.7 HEAT AREA CONNECTION OPTIONS

### 2.7.1 OUTFLOW CONNECTION (STEAM CONDENSATION)

Wastewater is disposed of using the unit's wastewater connection that the manufacturer pre-installed in the factory. Depending on the model and the order specifications, condensation must be disposed of using a fixed wastewater connection or using another collection option that is suited to the unit volume (e.g. collection tank). Ensure that wastewater cannot return to the cabinet.

Ensure that the drain hose's shut-off valve is closed during operation if there is no outflow provided by the customer (depending on the model). If an outflow provided by the customer is used, the drain hose can be connected directly to this. The outflow must be equipped with a water seal. This prevents cold air and odours penetrating the display case.

## NOTE

Wastewater installation may only be performed by authorised specialists.

### WARNING

#### Risk of escaping water due to an improperly installed wastewater connection

When setting up and operating the unit, ensure that the wastewater connections are installed properly. Lifting the units manually can cause the seal to loosen and therefore, water may flow out. This must be checked before setting up and before starting up each day. Use protective equipment.

## 2.7.2 MAINS WATER CONNECTION

Only a drinking water line is permitted to be connected to the unit's mains water connection (depending on the model). Use the seal supplied and the screen during assembly. **The customer must provide a shut-off valve**. This must be closed every day after operation finishes. Check the connection for leak-tightness on a regular basis.

### NOTE

Installation may only be performed by authorised specialists.



# **3 OPERATION AND CONTROL**

This section describes starting up and operating the unit properly.

## 3.1 STARTING UP FOR THE FIRST TIME

The unit is pre-cleaned prior to delivery. However, we recommend using a suitable cleaning agent (see section 4.1.2) to clean the unit thoroughly in order to remove any dirt.

Before commissioning, ensure that all maintenance covers / installation compartment, etc. are properly sealed.

### DANGER

#### Danger due to electrical voltage on live components

Check the cable connections and the power supply once more before starting up to ensure that they are correct and have contact.

## NOTE

Δ

The owner must provide unit training regarding correct operation.

## NOTE

If the power drops out, the unit must be started in the required operating mode.

# 

## 3.2 UNIT CONTROLLER

## 3.2.1 STÖRK UNIT CONTROLLER (ST122, ST501)

The following table describes the button allocation for the heat controller and their functions. The digital display is located above the buttons. The average temperature and any error messages are displayed here (see section 3.6).

### NOTE

NOTE

Wait until the required (set) temperature has been reached before filling the units with products.

#### 3.2.1.1 ST122 CONTROLLER



NO.	DESIGNATION	FUNCTION
1	CONTROLLER DISPLAY	Display settings/changes/values/errors
2	SUPPLEMENTARY HEAT (button)	Supplementary heat ON/OFF (3 heating levels)
3	PRIMARY HEAT (button)	Primary heat ON/OFF (3 heating levels)
4	HUMIDIFICATION (button)	Humidification ON/OFF (3 intensity levels)
5	LED (button)	Light ON/OFF
6	PROGRAMS (button)	Storable programs P1 to P7
7	ON/OFF (button)	Heated display case ON/OFF
8	P1 TO P7 DISPLAY	Red indicator = active

If nothing is shown on the display, check whether the unit is connected to the power supply.

#### **OPERATING THE UNIT** with moist heat (heat climate)

DISPLAY	DESCRIPTION
	Once the unit has been connected to the power supply, "OFF" is shown on the controller display. Press <b>button No.7</b> to switch on or off Press button No.5 to switch the light on/off. The unit provides the option of being used in ambient mode (unheated). (all heat levels are deactivated).
	After switching on, the controller display always shows the <b>AMBIENT</b> power setting for all heat sources. <b>The unit does not heat up</b> . The light can be switched on and off. Pressing the buttons can activate supplementary heat <b>button No.2</b> , primary heat <b>button No.3</b> and humidification <b>button No.4</b> separately at 3 levels each. The heating levels are indicated visually on the controller display.

#### ST200 heat settings

DISPLAY	HEAT DESCRIPTION
	Supplementary heat <b>(No. 2)</b> deactivated Primary heat <b>(No. 3)</b> deactivated Humidification <b>(No. 4)</b> deactivated (Neutral mode)
	Supplementary heat <b>(No. 2)</b> at level 1 Primary heat <b>(No. 3)</b> at level 1 Humidification <b>(No. 4)</b> at level 1
	Supplementary heat <b>(No. 2)</b> at level 2 Primary heat <b>(No. 3)</b> at level 2 Humidification <b>(No. 4)</b> at level 2
	Supplementary heat <b>(No. 2)</b> at level 3 Primary heat <b>(No. 3)</b> at level 3 Humidification <b>(No. 4)</b> at level 3

#### NOTE

The specified heat levels for supplementary heat, primary heat and humidification can be set individually as required. Press **button No. 6** to select the preset programs. The active program is indicated by the relevant LED in area **No.8**.

#### 3.2.1.2 ST501 CONTROLLER (ENERGY ADJUSTER)

The listed control display (ST501) is installed in some models. The following table describes the button allocation and their functions for this display type.



NO.	DESIGNATION	FUNCTION
1	HEATING (display)	Red indicator = active
2	LIGHTING (display)	Red indicator = active
3	TURBO (display)	Red indicator = active Heat-up phase, level 10 = 100%
4	UP (button)	Increase value Level 1 to LEVEL 10) (1= 10% → 10=100%)
5	DOWN (button)	Decrease value Level 1 to LEVEL 10) (10= 100% → 1=10%)
6	LIGHT (button)	Lighting on / off
7	TURBO (button)	Start heat-up phase, Level 10 = 100%
8	SET (button)	Red indicator = active
9	STANDBY (button)	On/OFF (standby)
10	DIGITAL DISPLAY (display)	Display ACTUAL value and messages (errors)

### NOTE

If nothing is shown on the display, check whether the unit is connected to the power supply.



## 3.2.2 CAREL IJF UNIT CONTROLLER

The controller is installed in units with dry heat.

The following table describes the button allocation for the Carel IJF controller and their functions.

The digital display is located above the buttons. The average temperature and any error messages are displayed here (see section 3.6).

### NOTE

If nothing is shown on the display, check whether the unit is connected to the power supply. Wait until the required (set) temperature has been reached before filling the units with products.





Symbolic representation

NO.	DESIGNATION	FUNCTION
1	LIGHT button (depending on the model)	Lighting ON/OFF
2	Heating mode	Red indicator = active
3	Fan active	Red indicator = active
4	Target value, Arrow pointing upwards	-Increase value, -Go through the menu -Direct access to target value adjustment
5	Program button	Short press: -Access to the menu branch -Save the value -Return to the parameter code Long press (3 sec): -Access to programming mode -Return to the previous level
6	ON/OFF button, Arrow pointing downwards	ON/OFF, unit ON -Value reduction -Go through the menu -Switch the unit on/off
-	Display	Display for target temperature; Error messages

## NOTE

The owner must provide unit training regarding correct operation.

## NOTE

On delivery, the functions "Switch unit on/off", "Temperature change" and "Light" are enabled as device operation  $\rightarrow$  User level.

Programming can only be carried out by entering the programming password.

### NOTE

A separate programming manual with detailed handling information is enclosed with the unit. Follow the instructions contained there.

The programming level can only be accessed by entering a password. Default password no. 15.



#### 3.2.2.1 SWITCHING THE UNIT ON (CAREL)

To be able to switch on the unit, it must be supplied with the necessary voltage (see section 2.4.1).

- Press the programme button (no. 5) for 3 seconds to cancel the display lock.
- Press the desired function on the display (Switch on unit, light, etc.).
- Set the desired temperature (no. 4 and no. 6).

The CAREL apps (Controlla and Applica) can be used to configure the controller via a mobile device (smartphone, tablet) and BLE connection (Bluetooth Low Energy).

#### NOTE

The information available on the control panel and in the APPLICA app may vary depending on the access level, password and manufacturer's parameter configuration.

#### NOTE

A proprietary CAREL app is available for the user level (CAREL Controlla). This app can only be used to control the functions of the device via end devices.

### 3.2.3 ROTARY KNOB UNIT CONTROLLER (USA VERSION)

The controller is mainly installed in units that are intended for the American market. The following table describes the indicators and controls.



Symbolic representation

NO.	DESIGNATION	FUNCTION
1	Light switch	Lighting ON/OFF
2	Temperature controller	Temperature controller (level 1-12) - heating plate
3	ON/OFF indicator	Red indicator: Heating plate heating up (Power supply)
4	ON/OFF indicator	Green indicator: Heating plate active

Carel Apps

#### NOTE

The owner must provide unit training regarding correct operation.



### 3.2.4 IDEAL-AKE STW UNIT CONTROLLER

The following table describes the button allocation for the STW (heating) controller and their functions. The digital display is located above the buttons. The average temperature and any error messages are displayed here (see section 3.6).

#### NOTE

If nothing is shown on the display, check whether the unit is connected to the power supply. Wait until the required (set) temperature has been reached before filling the units with products.



NO.	DESIGNATION	FUNCTION
1	"Control mode" status indicator	Heating control mode status indicator
2	"Menu" button	"Settings / Menu" control button
3	ON / OFF button	"Switch unit on or off" control button
4	"Time" display	Display of time alternating with status indicator
5	Button / display "Lighting"	Light ON/OFF control button with status indicator
6	"Alarms" indicator	Display active: Alarms present on the unit (see section 3.6)
7	"Humidification" status indicator	Display the power level for humidification with click function. Call the humidification power level settings
8	"Primary heat" status indicator	Display the power level for the primary heat with click function. Call the primary heat power level settings
9	"Supplementary heating" status indicator	Display the power level for the supplementary heating with click function. Call the supplementary heating power level settings
10	"Temperature" status indicator	Display of the temperature (optional – not active by default)
11	"Program" status indicator	Status indicator: Current heating program / control off with click function, "Call heating program settings"
12	"Heating position" indicator	Indicates the current "Heating position"

## 03 Display cases with heating climate and dry heat OPERATION AND CONTROL

## 3.3 TEMPERATURE SETTING

The interior temperature is regulated using the control display for the electronic temperature controller. This is located in the control housing or in the front of the furniture.

#### 3.3.1 STÖRK TEMPERATURE SETTING

The required temperature can be set by pressing and holding the SET button and simultaneously pressing the UP button for higher temperatures / levels or the DOWN button for lower temperatures / levels. The precise button allocation is provided in section 3.2.1.

#### NOTE

The target value set in the factory can be displayed by pressing the SET button. This is set according to the unit and adjustment may only be performed by authorised specialists.

### 3.3.2 IDEAL-AKE STW TEMPERATURE SETTING

The desired temperature can be increased or decreased by moving the temperature control or pressing the + / - buttons. The precise button allocation is provided in section 3.2.4.

#### NOTE

The target value set in the factory is continuously shown on the display. This is set according to the unit and adjustment may only be performed by authorised specialists.

### 3.3.3 CAREL IJF TEMPERATURE SETTING

The controller controls the cabinet temperature. The target temperature can be adjusted by pressing the arrow buttons. The precise button allocation is provided in section 3.2.2.

### NOTE

The target value is set according to the unit and adjustment may only be performed by authorised specialists.

## 3.3.4 ROTARY KNOB CONTROLLER TEMPERATURE SETTING

The rotary knob controller controls the interior temperature. Increasing the level increases the temperature. As soon as the energy adjustment controller is switched on, the green light illuminates. The red light illuminates until the set temperature is reached.

#### 3.3.5 PROBE ALIGNMENT

Each time a unit is installed or started up, a probe alignment is only possible once the target temperature value is reached. It may take some time to reach the temperature.

#### NOTE

The temperature controller is set up correctly and ready for operation. Check parameter H11 (return air probe calibration) after installation. Calibration may only be performed by authorised specialists in accordance with the programming manual that is valid for the unit.



## 3.4 STOCKING THE UNIT

Use the sliding doors or swing doors to stock the unit with pre-heated products from the serving side or from the customer side on open units and units with closed rear walls. The products can be placed on glass shelves and shelves.

#### NOTE

Pay attention to the maximum bearing capacity of the shelves Glass shelf loading: see the stacking limit / outline sketch for the corresponding model group. Shelf loading: see the stacking limit / outline sketch for the corresponding model group. Ensure that you do not place any barrels or bottles on the glass shelves.

stacking limit

CAUTION

Adjust the temperature according to your product. An excessively

In the heat area, the stocked products must be a minimum

distance of 80 mm from the supporting heat (radiator, quartz radiator) in order to prevent the stocked products burning or drying out. The containers / packaging must be temperature-

high temperature causes the product to dry out or burn.

Distance between the products and heat sources

NOTE

### NOTE

Ceramic plates can scratch powder-coated shelves.

## 3.4.1 STOCKING THE HEAT AREA



Example illustration

## WARNING

Risk of burns when stocking the unit When stocking or removing the products in units with a heat climate, ensure that you do not come into direct contact

resistant.

with components that convey steam or hot components.

Close the steam outlet on the operator side before filling the unit with products or removing them.

#### 3.4.2 FILLING THE BAIN-MARIE WITH WATER

Filling may only be performed on units with a heating climate.



UNIT TYPE	FILL QUANTITY
BASIC,	2.5 litres
BASIC Plus GN 1/1 to 3/1	
BASIC, BASIC Plus GN	4 litres
4/1	

#### NOTE

If nothing is shown on the display, check whether the unit is connected to the power supply.

The BASIC unit has a "Water-Proof-System" that triggers an audible warning signal if the water level in the water tray falls below the required level. A visual indicator is shown on the controller display. The audible warning signal sounds for five seconds and then switches off, while the visual "H20" warning signal (the fill level in the glass on the controller display moves up and down) remains visible on the controller display until the water has been topped up using the measuring jug provided (accessory supplied as standard).



#### WARNING

#### Risk of burns when stocking the unit

Switch the unit off and allow it to cool for at least 45 minutes before you start any work on the unit.



The BASIC heated display case has an "Easy-filling" system. This enables the unit to be refilled during operation without having to remove products. An opening to top up the water is located in the middle on the operator side in the hook-in frame.

#### NOTE

If no water has been filled after 30 minutes following the warning signal sounding, the heater switches the water cup off automatically. However, the products remain at temperature due to the primary and secondary heat.

### NOTE

Only use drinking water to fill the water tray. The water tray must be emptied and cleaned daily after use.



### 3.4.3 FILLING THE WATER TANK ON BASIC PLUS UNITS

Fill the water tank with drinking water when starting for the first time every day. The water tray can then be filled with hot water.

#### NOTE

Filling the water tray with cold water extends the heat-up phase by up to 30 minutes.



As soon as the water tank is empty, an audible warning signal sounds for 5 seconds. The visual "H2O" warning notification (the fill level in the glass on the display moves up and down) draws attention to the fact that filling is necessary.



The water tank can be removed after unscrewing the pump system and can then be filled at the tap via the filling nozzle (remove the yellow cap). **Störk acknowledgement:** 

After filling, press **buttons 2** and **4** simultaneously for 7 seconds to acknowledge the notification and restart the moisture supply (see section 3.3).

#### STW acknowledgement:

Confirm the notification text after filling. The confirmation acknowledges this automatically.

#### NOTE

If no water has been filled after 30 minutes following the warning signal sounding, the heater switches the water tray off automatically. However, the products remain at temperature due to the primary and secondary heat.

The water tank in the base of the BASIC Plus heated display case ensures an automatic water supply for up to 12 hours depending on the setting.

## NOTE

Only use drinking water to fill the water tank. The water tray and the water tank must be emptied and cleaned daily.



Display cases with heating climate and dry heat OPERATION AND CONTROL

#### 3.4.3.1 EMPTYING THE STEAM GENERATOR

On units with a steam generator (Hygromatik system), this must be emptied before an extended shutdown. If the unit is not operated for more than 3 days, the water must be pumped out of the steam generator.



#### WARNING

#### Risk of burns when stocking the unit

Switch the unit off and allow it to cool for at least 45 minutes before you start any work on the unit.

Pump the water out, switch the device and technology box off, and allow the entire unit to cool for at least 45 minutes!



### WARNING

#### Risk of burns due to touching hot surfaces

Very high temperatures occur in the vicinity of the machine slot. The components remain very hot even after switching off.



#### Proceed as follows step-by-step:

- 1. Switch the unit off;
- 2. Provide a suitable vessel or connect a drain hose to dispose of the water directly in the drain provided by the customer.
- 3. Pump the water located in the steam cylinder out using the drain pump. Press and hold the rocker switch on the technology box at level 2.

Close the mains water connection to the display case if the steam unit is not in use.



### 3.4.4 EASY CHANGE FRONT GLASS



### WARNING

#### Risk of crushing in the front glass area

There is a risk of crushing between the cover and the glass walls when lifting the unit's front glass. Call a second person to assist if necessary. This applies to larger units / models.



Press one of the top corners of the front glass with one hand in order to push the bottom edge out by a few centimetres.



Lift the front glass sufficiently to be able to lift it securely.



Lift the front glass and push it into the lock for the installed rails until it engages.

In order to close the front glass, perform the tasks described in reverse order.

When lowering, ensure that the glass does not fall. Lower it slowly until just before the attachment points. Apply counter pressure to the top corners of the front glass in order to be able to lower the glass slowly into the end position.



Display cases with heating climate and dry heat OPERATION AND CONTROL

## 3.5 FAULTS AND CAUSES

## NOTE

Switch the unit off if malfunctions occur. Contact your supplier or the manufacturer immediately.



#### WARNING

#### Dangers due to working on / handling the unit

Some inspections can pose a high level of danger (electric shock, etc.). Trained, authorised specialists must be commissioned to perform this work!

Check the points listed below or contact your supplier or specialist dealer if you cannot find the solution to the problem.

#### General

FAULT	CAUSE	REMEDY
The unit does not work.	Power supply interrupted.	Check that the protective contact plug is tight (at the socket and the controller).
	No voltage to the socket.	Check whether fuses (in the circuit) are intact.
	Electronics are set incorrectly or the display is dark.	Contact an authorised service technician / customer support.
The lighting does not work.	The LED lighting is not switched on.	Switch the lighting on (see section 3).
	The bulbs or cable connection are faulty	Contact an authorised service technician / customer support.

#### **HEAT AREA**

FAULT	CAUSE	REMEDY
The products do not reach the	Too much food or food too cold.	Remove and pre-heat the products.
required temperature.	The heat level is set incorrectly.	Increase the level / target temperature (see section 3.3)
	External draughts cause interruptions.	The installation location must be free of draughts, follow the specifications (section 1.8).
	Primary / supplementary heat fault, the unit is faulty.	Contact an authorised service technician / customer support.
	The ambient temperature in the room is too low.	Adjust the room climate control (for the ambient conditions, see section 1.8).
The primary and/or supplementary	The unit is not switched on	Switch the unit on.
heat does not get warm, cannot be regulated.	Controller / probe or fuse is faulty.	Contact an authorised service technician / customer support.
The radiator and/or base	The unit is not switched on.	Switch the unit on.
tray/heating tray does not get warm.	Controller / probe or fuse is faulty.	Contact an authorised service technician / customer support.
Heat sources cannot be regulated.	Controller / probe or fuse is faulty.	Contact an authorised service technician / customer support.
Food is too hot.	The temperature level is too high.	Set a lower temperature level.
The food cools off.	The stored foodstuffs are cold or not at the required temperature.	Check whether the "Primary heat" or "Supplementary heat" functions are active (section 3.3). Check whether the food was inserted with a core temperature of 85 °C. Contact an authorised service technician / customer support.



FAULT	CAUSE	REMEDY
The food dries out.	The water tank is empty / the mains water connection is faulty (model-dependent)	Fill the water tank, check the mains water connection (by authorised specialists).
H2O alarm on the display	No or insufficient water available	Check the water supply (see section 2.7)

#### NOTE

The manufacturer is not liable for spoiled products even if the unit is still under warranty. We recommend checking the unit temperature technically every six months.

## 3.6 STATUS INDICATORS AND ERROR MESSAGES ON THE DISPLAY

Messages are display messages that inform the user of controller operating processes (e.g. light active) or confirm key commands.

Depending on the control display installed, all error messages are shown on the display as codes, numbers or text



## DANGER

#### Danger due to electrical voltage on live components

The power supply must be disconnected before all cleaning and servicing work. To do this, unplug the unit or disconnect it from the mains at all poles. Repair work may only be performed by authorised specialists.

#### NOTE

The tables listed do not apply to special controllers (see the applicable operating manual for the controller). Observe the instructions in the relevant programming manual – contact your supplier or the manufacturer.

## 3.6.1 STÖRK ERROR MESSAGES (ST122, ST501)

MESSAGE	CAUSE	REMEDY
FIL	Error on probe F1, supplementary heat	Contact an authorised service technician / customer support
F IH	Error on probe F1, supplementary heat	Contact an authorised service technician / customer support
F2L	Error on probe F2, heating plate	Contact an authorised service technician / customer support
F2H	Error on probe F2, heating plate	Contact an authorised service technician / customer support
F∃L	Error on probe F3, bain-marie angle sensor	Contact an authorised service technician / customer support
FЭH	Error on probe F3, bain-marie angle sensor	Contact an authorised service technician / customer support
F 10	Water tray or float gauge below the heating plate "Primary heat" missing or installed incorrectly	Check the water tray and the float gauge
F90	Data transmission error, controller not found	Check the interface wiring, check the address, controller may be de-energised.
Н20	No or insufficient water available. Note: The H2O alarm moves and the signal horn sounds	Check the water supply: For manual filling, see section 3.5.2; for the water tank, see section 3.5.3; For the drinking water connection, see section 2.7. If the error persists, contact support or the manufacturer.

## 3.6.2 STATUS INDICATORS AND ERROR MESSAGES (IDEAL-AKE STW)

Error messages are indicated by an icon at the bottom right-hand edge of the display. Press the icon to present the individual error messages with numbers and text.

MESSAGE (Code)	DESCRIPTION	REMEDY
1x	Heating output - switch on time exceeded	Inspection by specialist personnel
53x	Primary heat sensor interruption or short circuit	Probe/sensor repair - Contact manufacturer
54x	Supplementary heating sensor interruption or short circuit	Probe/sensor repair - Contact manufacturer
55x	Target value sensor interruption or short circuit	Probe/sensor repair - Contact manufacturer
56x	Primary heat sensor interruption or short circuit	Probe/sensor repair - Contact manufacturer
57x	Supplementary heating sensor interruption or short circuit	Probe/sensor repair - Contact manufacturer
58x	Target value sensor interruption or short circuit	Probe/sensor repair - Contact manufacturer
59x	"Reserve" sensor interruption or short circuit	Probe/sensor repair - Contact manufacturer
60x	Heating position temperature alarm	Inspection by specialist personnel
61x	Humidity alarm	Inspection by specialist personnel
63x	Primary heat faulty	Repair – contact the manufacturer
640	Cup 1 missing	Insert a water cup
641	Primary heat faulty	Repair – contact the manufacturer
643	Cup 2 missing	Insert a water cup
64x - 65x	H2O alarm – water shortage	Top up the water
650	Water level exceeded	Inspection by specialist personnel
655	Cup overfilled	Inspection by specialist personnel
660	Cup – fill level reached	Inspection by specialist personnel
670	Vaporisation system error	Inspection by specialist personnel – contact the manufacturer
67x-68x	Angle sensor not connected, angle sensor short circuit	Inspection by specialist personnel – contact the manufacturer
688	Replace the water filter	Replace the water filter – contact the manufacturer
80x	No connection to board	Inspection by specialist personnel
902	Error memory was initialised	Information - no action required
903	Restart controller (power ON)	Restart of the controller required

#### NOTE

x... indicates the number of probes/sensors installed. Observe the instructions in the associated programming manual – contact your supplier or the manufacturer.

### NOTE

If there is a fault on the controller, the controller switches to emergency mode (last functional operating mode WITHOUT heating). The fault must be rectified immediately by authorised specialist personnel. Observe the instructions in the associated programming manual – contact your supplier or the manufacturer.



### 3.6.3 STATUS INDICATORS AND ERROR MESSAGES ON CAREL IJF

Messages are display messages that inform the user of controller operating processes (e.g. light active) or confirm key commands.

DISPLAY	DESCRIPTION	
Ble	Bluetooth <sup>TM</sup> – connection being established	
Loc	Display locked	
OFF	Switch to the OFF state	
ON	Switch to the ON state	

If an alarm occurs, the buzzer is activated and the "Service icon" flashes. The display shows the alarm code. Press any button to switch the buzzer off.

### NOTE

Switch the unit off if malfunctions occur. Contact your supplier or the manufacturer immediately.

DISPLAY	DESCRIPTION	DISPLAY	DESCRIPTION
CE	Error when writing the configuration	S1	Control probe
DA	Delayed alarm via external contact	St	Target value
EHI	Alarm for high supply voltage	AL	Alarm threshold for low temperature
ELO	Alarm for low supply voltage	AH	Alarm threshold for high temperature
Etc	Clock error		
GHI	General alarm, upper threshold		
GLO	General alarm, lower threshold		
HA	HACCP alarm		
HALLO	High temperature		
IA	Immediate alarm via external contact		
LO	Low temperature		
HI	High temperature		



Display cases with heating climate and dry heat OPERATION AND CONTROL

## 3.7 STÖRK PROGRAMS AND RECOMMENDED SETTINGS

#### NOTE

The values listed here are to be considered recommendations based on tests and user feedback. The manufacturer is not liable for spoiled products due to incorrect settings even if the unit is still under warranty. We recommend checking the unit temperature technically every six months.

## 3.7.1 RECOMMENDATIONS FOR "ONE SIDE OPEN" OPERATION

SUGGESTION FOR USES: 1) Self-service pane open and swing doors closed 2) Self-service pane closed and swing doors open	Supplementary heat (top)	Primary heat (bottom)	Steam	Pre-programmed storage location
Meat, poultry or fish in sauce, steamed products in liquid (fish, poultry, meat), filled vegetables with meat/vegetables, rice, pasta, potatoes, vegetables with/without sauce, bakes, stews, soups	3	2	3	P1
Schnitzel, cutlets, meat and poultry, whole meat joints for slicing, rice, pasta, potatoes, vegetables with/without sauce, bakes, stews, soups	3	3	3	P2
Schnitzel, meatballs, meat loaf, joints, chicken legs, pizza, sausages, frankfurters in water, burgers, meat skewers (finger food), finger food products in general	3	2	2	P3
Chips, wedges, nuggets, spring rolls, battered fish, finger food products in general	3	2	1	P4
Filled, warm bread rolls, filled croissants, quiche, battered sausages, finger food products in general	2	1	1	P5
Bread rolls, croissants, bread, cakes, pastries	1	0	1	-



### 3.7.2 RECOMMENDATIONS FOR "ALL SIDES CLOSED" OPERATION

SUGGESTION FOR USES: Self-service pane closed and swing doors closed	Supplementary heat (top)	Primary heat (bottom)	Steam	Pre-programmed storage location
Meat, poultry or fish in sauce, steamed products in liquid (fish, poultry, meat), filled vegetables with meat/vegetables, rice, pasta, potatoes, vegetables with/without sauce, bakes, stews, soups	2	1	1	P5
Schnitzel, cutlets, meat and poultry, whole meat joints for slicing, rice, pasta, potatoes, vegetables with/without sauce, bakes, stews, soups	2	1	1	P5
Schnitzel, meatballs, meat loaf, joints, chicken legs, pizza, sausages, frankfurters in water, burgers, meat skewers (finger food), finger food products in general	2	1	1	P5
Chips, wedges, nuggets, spring rolls, battered fish, finger food products in general	2	1	1	-
Filled, warm bread rolls, filled croissants, quiche, battered sausages, finger food products in general	1	1	1	P6
Bread rolls, croissants, bread, cakes, pastries	1	0	0	P7

## Display cases with heating climate and dry heat CLEANING/MAINTENANCE/SERVICING

# 4 CLEANING/MAINTENANCE/SERVICING

## 4.1 CLEANING AND CARE

In order to guarantee that the products are presented well, daily interior and exterior cleaning must be performed in accordance with the hygiene regulations.



### DANGER

#### Danger due to electrical voltage on live components

The power supply must be disconnected before all cleaning and servicing work. To do this, unplug the unit or disconnect it from the mains at all poles.

Assembly, commissioning, dismantling and repair work on electrical components may only be performed by authorised specialists when the unit has been de-energised.



Α

## DANGER

#### Danger due to malfunctions once cleaning is complete

Check that all safety components are functioning properly after completing the work. Check that all screws are tight and all parts / components have been fitted properly.



#### Impact hazard on the unit during assembly, cleaning and servicing work

Pay attention to possible impact hazards on the unit.

Switch the unit off prior to cleaning work. We recommend performing daily cleaning at the end of the working day.

## 4.1.1 CLEANING INTERVALS

The following cleaning intervals are recommended to guarantee that the unit works as well as possible:

CLEANING WORK	DAILY	WEEKLY	MONTHLY
Black glass plates – display areas	Х		
Chopping board, fold-up mirror (depending on the model)	X		
Supplementary heat (thermal bridge)	Х		
Lighting	Х		
Collection tray / base tray (shut-off valve), water tank, bain-marie with float (depending on the model)	Х		
All glass (including sliding and swing doors)	Х		
Control display		Х	
Water connections (depending on the model)		Х	
Gas pressure absorber (depending on the model)		Х	
Steam guide plates		Х	
All remaining components on the unit (bases, frames, etc.)		Х	

### NOTE

We recommend cleaning the unit daily to ensure that its functions are maintained.

Pay attention to additional cleaning instructions due to local conditions / regulations.



After cleaning, all parts must be rinsed with clear water and then dried in order to prevent residues. The following points are important for keeping the stainless steel parts on the unit in perfect condition:

- Keep stainless steel surfaces clean at all times.
- Ensure sufficient air circulation on the surfaces.
- Never touch the unit's component with rusty materials.
- Wipe vegetable oils and marinades up quickly.

#### NOTE

People who perform cleaning work must also comply with the prescribed measures for the applicable cleaning agents (e.g. wearing gloves when cleaning, wearing safety goggles, etc.)!

#### NOTE

Wear appropriate protective equipment when cleaning the unit. This must comply with that prescribed by the manufacturer of the cleaning agent used (see section 4.1.2). Prior to cleaning, check whether the water used for cleaning can also be discharged. If the unit is not connected directly to the wastewater system by the customer, a container of an appropriate size must be placed under the outflow

## 4.1.2 CLEANING AGENTS

#### NOTE

Only the cleaning agents specified in this section are permissible for cleaning the unit. Do not use any cleaning agents containing chlorine or vinegar.

Do not use any strong-smelling, corrosive, solvent-containing, bleaching or chlorine-containing cleaning agents. Never use high pressure, water pressure or steam cleaners. Do not use any inflammable, chemical cleaning agents. Never use scouring agents (Scotch, cleaning fleece) or wire wool.

First check that the cleaning agent is compatible in an invisible location on the unit.

COMPONENTS / MATERIALS	CLEANING AGENTS	REMARK
Surfaces that come into contact with products	Lukewarm, soapy water	Rinse with clear water.
Glass surfaces	Glass cleaner	Glass panes can be lifted to make cleaning the panes and the areas below them easier.
Stainless steel surfaces	Stainless steel cleaner	Ensure that the stainless steel cleaner that you use is food-safe.
Powder-coated surfaces	Soft cloth, lukewarm, soapy water	Do not use any <ul> <li>scouring or rough cleaning utensils</li> <li>Glass cleaner</li> <li>Solvent</li> </ul>
LED lighting, supplementary heat	Soft cloth	Only clean dry
Hook-on frames with containers, separators, shelves	Washing up liquid and brush	Shelves and GN containers are easy to remove (see section 2.1). Only use brushes with plastic or natural bristles.
Control display	Soft cloth, glass cleaner	Do not use any <ul> <li>scouring or rough cleaning utensils</li> </ul> Solvent
All remaining components on the unit	Soft cloth, lukewarm, soapy water	<ul><li>Do not use any</li><li>scouring or rough cleaning utensils</li></ul>



Display cases with heating climate and dry heat CLEANING/MAINTENANCE/SERVICING

## 4.1.3 CLEANING THE GLASS / DOORS

The cover glass can be moved upwards and therefore enable the inside to be cleaned (see section 2.1).



#### WARNING

#### Risk of falling objects

Hold the glass tight while cleaning and do not allow the front glass to fall / tip forwards.

### NOTE

On units as of 2/1, the glass must be handled and cleaned by at least two people. Do not underestimate the weight of the glass. This also applies to screw-on glass attachments or models with a safety rope.

#### Swing and sliding doors



### WARNING

#### Risk of crushing/cutting when moving the sliding or swing doors

Only use the handles provided to open and close the sliding doors. Do not reach between the side parts of the sliding door and the unit when closing the sliding doors. Do not reach between the bottom of the angle trim and the top of the sliding door. Ensure that the angle trim is installed and screwed on properly. This also applies to swing doors. Be careful when handling glass.

#### NOTE

Only the cleaning agents specified in section 4.1.2 are permissible for cleaning the swing and sliding doors.

Sliding doors can be removed from the unit for cleaning using the sliding door lock (see section 2.1). After cleaning is complete, ensure that all doors are re-attached and closed completely.





NO.	DESIGNATION
1	Left door guide
2	Right door guide
З	Left door locking lever
4	Left door
5	Rail (not visible)
6	Right door
7	Guide rail

#### NOTE

On units as of size "4/1", the sliding doors must be handled and cleaned by at least 2 people. Do not underestimate the weight of the sliding doors. This also applies to swing doors.

### NOTE

Ensure that glass is handled with care.

#### Removal steps / sequence for sliding doors:

- 1. Hold the door handle tight in your left hand.
  - Pull the locking lever upwards completely with your right hand.
- 2. Leave your left hand on the door handle and grasp the door frame with your right hand. Tilt the doors towards the operator.
- 3. Move the doors to the position in which the recesses are located on the rail for the rollers. In order to remove the door from the guide rails, lift it slightly upwards and push it backwards.
- 4. Tilt the door up at the front and lift it out of the unit.
- 5. Place the door on a clean and soft mat. Ensure that the handle is on the top.
- 6. Hold the door handle tight in your right hand. Grasp the door frame with your right hand. Tilt the door towards the operator.
- 7. Move the doors to the position in which the recesses are located on the rail for the rollers. In order to remove the door from the guide rails, lift it slightly upwards and push it backwards.
- 8. Tilt the door up at the front and lift it out of the unit.
- 9. Place the door on a clean and soft mat. Ensure that the handle is on the top.
- 10. Clean the doors and the overlap zone. Check that the rollers on the sliding doors move freely. They must be free of contamination.



### Display cases with heating climate and dry heat CLEANING/MAINTENANCE/SERVICING

#### NOTE

Only the cleaning agents specified in section 4.1.2 are permissible for cleaning the sliding doors.

- 11. Re-attach the right window. Repeat steps 6 to 8 in reverse order. Ensure that the right window is attached to the white lock. Move the right window into the far right position.
- 12. Re-attach the left window. Repeat steps 1 to 4 in reverse order. Ensure that the left window is attached to the black lock. Move the left window into the far left position.

### NOTE

After cleaning is complete, ensure that all doors are re-attached, closed completely and that the lock is activated. Check that the sliding doors can move freely.

## 4.1.4 CLEANING THE PRESENTATION AREA



#### WARNING

Risk of burns

NOTE

Switch the unit off and allow it to cool for at least 45 minutes before you start cleaning work.



Depending on the unit version, remove the GN dishes / presentation areas including the hook-in frame and clean these with suitable cleaning agents in accordance with section 4.1.2.





## 4.1.5 CLEANING THE STEAM GUIDE PLATE



WARNING

#### Risk of burns

Switch the unit off and allow it to cool for at least 45 minutes before you start cleaning work.



Use the handle provided to lift the heating plate (primary heat) up completely from the serving side. Gas pressure absorbers that are installed (depending on the model) keep the plate open in the end position.



Remove the steam slide control upwards.



Remove the steam guide plate upwards. Then remove the removable filling nozzle for cleaning.

Display cases with heating climate and dry heat CLEANING/MAINTENANCE/SERVICING

### 4.1.6 CLEANING THE BAIN-MARIE WITH FLOAT (UNITS WITH A HEATING CLIMATE)



## WARNING

#### Risk of burns

Switch the unit off and allow it to cool for at least 45 minutes before you start cleaning work.



Use the handles provided to remove the bain-marie. Remove the float carefully and ensure that you do not turn it when doing so (the brackets may break). Only clean the bain-marie after removing the float. The float may only be cleaned by hand. We recommend a cleaning agent that removes limescale and that is suitable for stainless steel. Rinse all parts with clear water to prevent residues (deposits).





#### NOTE

When re-inserting the float into the bracket, ensure that it is in position properly. The float is inserted correctly when it is on the water surface and moves freely. Check this after re-inserting! The float must be replaced if it is contaminated, covered in limescale or faulty. A faulty float can cause the bain-marie to overheat or to overflow!

The bain-marie and the float must be cleaned daily to ensure that vaporisation works properly. Pay particular attention to ensuring that the float always moves freely. The bain-marie and float must be kept free of dirt and limescale in order to ensure that they function.



## 4.1.7 CLEANING THE BASE TRAY (UNITS WITH HEATING CLIMATE)

З



Fold the base shelf (heating plate) up to enable the base tray to be cleaned. After the bain-marie / water tray (depending on the version) have been removed, the base tray interior can be cleaned.



NO.:	DESIGNATION
1	Ball valve
2	Water filter
3	Water tank

Connect the base tray's drain hose to the drain or place a suitable container beneath it. Open the ball valve and start cleaning. After the base tray has been cleaned and rinsed with clear water, close the ball valve and re-stow the drain hose in the base.

#### NOTE

Once cleaning work is complete, ensure that the primary heat plate has been returned to the bottom end position properly.

### NOTE

The container for cleaning the base tray must be able to hold all of the "cleaning water".

Display cases with heating climate and dry heat CLEANING/MAINTENANCE/SERVICING

#### 4.1.8 CLEANING THE FOLD-UP MIRROR



Fold-up mirror beneath the chopping board support



Hook-in unit



Lift the mirror in the middle when folding up.



The mirror can now engage into the hookin unit.



When the mirror is folded up, re-insert the chopping board until it engages into the position provided. Ensure that the bracket points towards the unit.



First remove the chopping board and then lift the mirror, pull it towards you and fold it down.

#### 4.1.8.1 REMOVING THE FOLD-UP MIRROR



Fold the mirror up.



Undo the wing screw on the right side and remove the bracket that becomes free.



Then pull the mirror off the guide pin on the left side.

Proceed in reverse order when re-installing. After re-installing, the mirror must be secured again using the retaining bracket and the wing nut!



### 4.1.9 CLEANING THE CHOPPING BOARD

The chopping board comprises a removable nickel-chromium steel cup with one or several poly-hygiene inserts. The polyhygiene inserts on some model groups can be removed from the nickel-chromium steel cup for easier cleaning.

When the swing doors are detached, the entire chopping board including the nickel-chromium steel cup can be removed to the side and lifted out of the guide.



Chopping board support attached, mirror below.



Lift the chopping board attachment out of the fixture.



Chopping board support must be removed.

### 4.1.10 CLEANING THE DRAIN PIPE (INCL. WATER SEAL)

On units that are connected to the wastewater network, the drain pipes including the water seal (depending on the model) must be rinsed with hot water so that possible contamination and germs are removed.



## CAUTION

#### Fasten the drain pipe to the defrost water receptacle

Ensure that the tray including the water seal and the drain pipes are re-attached properly after cleaning. Water can escape. There is a risk of slipping.



Display cases with heating climate and dry heat CLEANING/MAINTENANCE/SERVICING

## 4.1.11 HEATED BASE CLEANING (HOT STORAGE)

The heated base must be cleaned daily.



## WARNING

#### Risk of burns

Switch the unit off and allow it to cool for at least 45 minutes before you start cleaning work.



#### WARNING

#### Risk of crushing when moving the sliding doors 7 swing doors

Only use the handles provided to open and close the sliding doors. Do not reach between the side parts of the sliding door and the unit when closing the sliding doors. Do not reach into the guide rails. Always open and close the sliding doors slowly. Opening and closing rapidly can cause hand injuries.

## NOTE

All removable stainless steel parts can be cleaned in the dishwasher.



The holders enable various GN dish heights to be arranged variably (see section 2.1). The heated base has a probe controller. Proceed as follows to clean:

- 1. Remove the GN dishes.
- 2. Hook the hook-in aid in.
- 3. Always use the hook-in aid to remove the hook-in frame without GN dishes.
- 4. To do this, hook the hook-in aid into the recess provided.
- 5. Use the cleaning agents specified in section 4.1.2 to clean the interior and all parts.



## 4.2 MAINTENANCE INSTRUCTIONS

To ensure that the unit functions properly and provides the best possible presentation area, the unit must be inspected and maintained on a regular basis. Each unit was tested in accordance with the "Routine test, EN 60335-1 Annex A" in the factory. Manufacturer recommendation: annual subsequent test by the owner in accordance with VDE 0701-0702.



#### DANGER

#### Danger due to electrical voltage on live components

The unit must be disconnected from the mains supply (using the main switch or by disconnecting at all poles) until the maintenance, inspection or repairs are complete. Inadvertent restarts must be prevented.

## NOTE

Maintenance work to be performed by the operating staff or owner only applies to the work listed in section 4.3.

## NOTE

Technical modifications to the unit may only be made by authorised specialists! This applies particularly to work on heating installations, the electrical installation and the mechanical system. **All modifications must be authorised by the manufacturer!** 

Repair and maintenance manuals are available in our online shop by scanning the following QR code:



If you do not have a QR code reader (scanner), all documents are available in the downloads area on the manufacturer's website or you can contact your supplier or specialist dealer.



Display cases with heating climate and dry heat CLEANING/MAINTENANCE/SERVICING

## 4.3 MAINTENANCE AND SERVICING INTERVALS

Always comply with the listed maintenance work in order to ensure that your unit continues to function, and expand this work if necessary.

COMPONENT / ASSEMBLY	WORK	INTERVAL
Well including drain (water seal)	Visual and functional inspection	Daily
Thermal bridge (supplementary heat)	Visual and functional inspection	Daily
Black glass plate	Visual and functional inspection	Daily
All glass (including swing doors, side glass, etc.)	Visual inspection	Daily
Float switch (depending on the model)	Visual and functional inspection	Daily
Mechanical damage to all other components on the unit	Visual and functional inspection	Daily
LED lighting (depending on the model)	Visual and functional inspection	Weekly
Collection tray / bain-marie / base tray	Visual and functional inspection	Weekly
Water connections and hose connections (depending on the model)	Visual and functional inspection	Weekly
Mechanical damage to all other components on the unit	Visual and functional inspection	Weekly
Gas pressure absorber - black glass plate (depending on the model)	Visual and functional inspection	Monthly
Complete unit	Visual inspection	Yearly

Repair and servicing manuals are available from the manufacturer on request.

## 4.3.1 MAINTENANCE INSTRUCTIONS FOR APPLIANCES WITH HEATING AIR CONDITIONING

Additional maintenance and repair activities must be carried out on appliances with a heat-conditioning design (by evaporation).



#### CAUTION

#### Risk of burns on hot components

Turn of the unit and wait at least 45 minutes before starting any maintenance work on steam-carrying components, there is a risk of burns. Use appropriate protective equipment.

#### 4.3.1.1 CHECKING THE FLOAT SWITCH (UNITS WITH HEATING CLIMATE)

Check the float switch on the bain-marie (only on units with heating climate) to ensure that it moves freely or replace it if necessary.

#### NOTE

The float must move freely. If it gets tuck due to limescale or dirt / food residues, the water conveyed in the bainmarie may overflow and result in steam no longer being generated. **The manufacturer is not liable for any damage due to missed inspections.** 



#### 4.3.1.2 MAINTENANCE OF THE STEAM GENERATOR (HYGROMATIK<sup>®</sup>)

The maintenance of the steam generator is described in an additional manual. The instructions can be accessed from the IDEAL-AKE homepage (Downloads) under the following link:



https://www.ideal-ake.at/dokumente/

### NOTE

Maintenance of the steam unit may only be carried out by trained specialists. The manufacturer is not liable for any damage caused by errors of any kind due to incorrect use.

#### 4.3.1.3 REPLACING THE WATER FILTER (UNITS WITH HEATING CLIMATE)

The water filter on units that include it must be replaced on a regular basis. The unit shows when the filter has to be replaced on the display. When OFF, the "CHANGE WATER FILTER" message is displayed. If this message is displayed, proceed as follows:



- 1. Switch the unit off at least 45 minutes prior to starting to replace the water filter. The unit must have cooled down!
- 2. Grasp the filter by the fins on the bottom and turn it anticlockwise until it can be removed.
- Screw the replacement filter in clockwise until hand tight (observe the enclosed installation manual -> all instructions that it contains must be followed).
- 4. Turn the water supply on again.
- 5. Press **buttons 2** and **4** simultaneously for 5 seconds when Off to clear the message from the display (see section 3.2).
- 6. Check that the filter head is leak-tight when starting up for the first time after replacing the filter.



Connect the base tray's drain hose to the drain or place a suitable container beneath it. Open the ball valve and start cleaning. After the base tray has been cleaned and rinsed with clear water, close the ball valve and re-stow the drain hose in the base.

### CAUTION

#### Matching the water filter to the water quality

Check whether the water filter that is installed in the unit as standard is suitable for the on-site water quality. This prevents damage to the components that are installed. Contact your specialist dealer if you have any questions.



Display cases with heating climate and dry heat CLEANING/MAINTENANCE/SERVICING

#### NOTE

Regardless of the remaining capacity, the filter must be replaced at the latest after 10 months in operation or after 4 or more weeks of downtime.

## 4.3.2 CHECKING THE GAS PRESSURE ABSORBER



#### DANGER

Danger due to faulty gas pressure absorber Check the gas pressure absorber monthly to ensure that it is functioning properly. Replace it if it is faulty.

## 4.4 SPARE PART PROCUREMENT

Each unit is provided with a type plate (see section 1.7). In order to ensure that you order the correct spare part for your unit, inform your supplier or specialist dealer of the unit data listed or order the required spare parts directly from the manufacturer's online catalogue. The type, serial number and date of manufacture details are required for allocation.

Spare parts are available at:





# 5 DECLARATION OF CONFORMITY

CE	EC Declaration of Conformity in accordance with EU Directive 2006/42/EC and 2014/30/EU
Manufacturer:	Ausseer Kälte- und Edelstahltechnik GmbH Pichl 66, 8984 Bad Mitterndorf, AUSTRIA
Product:	Heated display cases See section 1.3 (Area of application)
Year of construction:	As of 2024

We hereby confirm that the aforementioned products comply with the Machinery Directive 2006/42/EC and the EMC Directive 2014/30/EU. It complies with the basic requirements of the Machinery Directive 2006/42/EC and the significant requirements of the EMC Directive 2014/30/EU and RoHS 2011/65/EU. The required technical documents were compiled and archived. The versions of the following harmonised standards that were valid at the time were applied:

#### EN 60335-1:2012

Household and similar electrical appliances - Safety - Part 1: General requirements EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 (IEC 60335-1:2010, modified)

#### EN 60335-2-49:2003

Household and similar electrical appliances - Safety - Part 2-49: Particular requirements for commercial electric hot cupboards to keep foodstuffs warm and tableware EN 60335-2-49:2003/AC:2007 + EN 60335-2-49:2003/A11:2012 + A2:2019 (IEC 60335-2- 49:2002 + A1:2008 + A2:2017)

#### EN ISO 12100:2011

Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)

In the event of technical modifications to the aforementioned product, which were not approved by the manufacturer, this EC Declaration of Conformity becomes invalid.

Dietmar Ruml Managing Director

#### NOTE

Bad Mitterndorf, 2024

Please observe any supplementary sheets to this operating manual and the corresponding declaration of conformity!

For more information, contact the manufacturer!