



Design example

## varithek<sup>®</sup> acs 1600 O<sub>3</sub>



... with digital control

Article no. 91 14 04 07 ... acs 1600 03 digital W/K (warm / cold)  
Article no. 91 14 04 08 ... acs 1600 03 digital W/W (warm / warm)  
Article no. 91 14 04 09 ... acs 1600 03 digital N/N (neutral / neutral)  
Article no. 91 14 04 10 ... acs 1600 03 digital N/W (neutral / warm)  
Article no. 91 14 04 11 ... acs 1600 03 digital K/K (cold / cold)  
Article no. 91 14 04 12 ... acs 1600 03 digital N/K (neutral / cold)

- Mobile unit with integrated extraction and circulating-air cleaning for food delivery
- **air-cleaning-system acs** with patented plasma technology filters steam and vapour so that they are free from odour.

The illustrations show configuration examples, which do not necessarily have to be included in the scope of delivery.



Observe the operating instructions  
Translation of the Original Operating Instructions

DOWNLOAD: USER MANUAL

QR code on type plate



EN

**Rieber Professional.** Our solutions provide quality, safety and, in particular, a high level of energy efficiency and cost effectiveness.

**CHECK HACCP** – In the area of HACCP documentation the CHECK CLOUD platform offers the CHECK HACCP digital system, for simple, safe and transparent temperature detection.

In addition to this, further digital features are possible in the areas of hygiene and service management. The automated digital answer to the analogue paper trail.



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**1 Revision Index**

Revision	Change
2017-09-18	First issue
2019-02-13_f1	Seal tightness of housing; Changing the filter is much easier

## 2 Important Information

### 2.1 The components of the technical documentation

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- varithek® **acs 1600 O<sub>3</sub>** Operating Instructions
- Information on **CHECK HACCP**  
[www.rieber.de](http://www.rieber.de)  
Select "→ Service" at the top of the display list.
- Spare parts and necessary instructions.  
[www.rieber.de](http://www.rieber.de)  
Select "→ Customer Service" at the top of the display list.
- The Rieber price guide provides further information about a wide variety of accessories.  
[www.rieber.de](http://www.rieber.de)  
At the top of the display list, select: Search → price guide  
Or: Contact the manufacturer, Rieber, or your dealer
- Do you wish to have the operating instructions in another language?  
[www.rieber.de](http://www.rieber.de)  
Select "→ Customer Service" at the top of the display list.

### 2.2 Using this guide

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This guide contains important information about how you can use the appliance safely and correctly.



- ▶ Read the operating instructions before first using the product.
- ▶ Keep this guide in a safe place and pass it onto the next owner should you wish to part with the product.

Our customers often express the wish to have one compact guide instead of a number of different guides for these product variants, which have similar functions.

If there are any shortcomings in your opinion, please do not hesitate to let us know. With your help, we will try to become even better.

Please add your notes here 😊

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## 2.3 Representation conventions in the text

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- Lists are represented in this way.
- Instructions on certain actions are represented in this way.



*See '...' cross-references are represented in this way*



### ATTENTION

indicates potential damage to property without any personal injury.  
Failure to follow these instructions may cause damage to property.



### User tip

▶ Useful information or tip

## 2.4 Structure of safety instructions

---

The signal words DANGER - WARNING - CAUTION classify the degree of risk of bodily injury in an actual situation. You can avoid injury by complying with the behavioural rules provided.

The warning triangle symbol indicates a "General Danger".



### DANGER

indicates **imminent danger**.

Failure to follow these warning instructions will result in **serious bodily injury or even death**.



### WARNING

indicates a **potentially hazardous situation**.

Failure to follow these warning instructions **may cause serious bodily injury or even death**.



### CAUTION

indicates a **potentially harmful situation**.

Failure to follow these warnings **may cause minor bodily injury**.

### 3 Safety instructions

This section covers residual risks and hazards associated with the intended use of the appliance. We have provided a list of all generally valid safety instructions which must be followed.

In the following section, safety information relating to a particular operation or situation is placed before the appropriate operation step or description of the situation.

#### 3.1 General behaviour

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This appliance meets the current state of the art and complies with all acknowledged technical safety-related regulations. Nevertheless hazards may still arise.

- Only use this appliance when it is in fault-free condition and according to the instructions in this user guide.
- During all phases of the appliance's life please ensure that the appliance is safely integrated into its environment.
- Do not make any conversions or modifications to the appliance.
- Use the appliance as intended, for your safety.



*Chapter 'Purpose', Page 19*

#### 3.2 On use of electrical appliances

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Safety instructions according to EN 60745-1:

##### **Work area**

- Keep your work area clean and tidy. A messy or unlit work area can cause accidents.
- Keep children and other people away from the area when work is being carried out.

##### **Electrical safety**

- The plug on the unit must fit in the socket. Do not modify the plug in any way. Never use an adapter in combination with earthed appliances. Using an unmodified plug and a suitable socket will reduce the risk of an electric shock.
- Keep the device away from rain or wet. Allowing water to get into an electric appliance will increase the risk of electric shock.
- Do not use the cable for anything other than the intended purpose to disconnect the plug from the socket. Always remove whilst holding onto the plug. Keep the cable away from heat, oil, sharp edges or the moving parts of other appliances. Using damaged or tangled cables increases the risk of electric shock.
- Potential risk of fire due to heat build-up. Unwind the cable from the cable drum to prevent a possible heat build-up and/or cable fire. The coupling must have splash protection, must be made of rubber or be rubber-coated.

### Safety guidelines for persons

- Be attentive and pay attention to what you are doing, act rationally when working with an electrical appliance. Do not use the appliance when tired or under the influence of drugs, alcohol or medication.  
Just one moment of inattention whilst using the appliance can result in serious injury.
- Make sure the appliance cannot be switched on unintentionally. Double check that the main switch is in the "OFF" position before inserting the plug in the socket. Connecting the appliance to the power supply while it is switched on can cause an accident.

### Careful handling and use of electrical appliances

- Never use an electrical appliance with a faulty switch. An electrical appliance which can no longer be switched on or off is dangerous and must be repaired.
- Keep unused electrical devices away from children. Do not allow the appliance to be used by persons who are not familiar with it or persons who are not familiar with this user guide. Electrical appliances are dangerous when in the hands of inexperienced persons.
- Treat the device with care. Check that moving parts are functioning properly and do not block; check whether parts are broken or damaged and impairing the functioning of the device. Have any damaged parts repaired before using the appliance. Many accidents are caused by poorly-maintained electrical appliances.
- Use electrical appliances, accessories etc in accordance with these instructions and in a manner that is specified for this particular appliance type. When using the appliance, please take into account the working conditions and the work being carried out. Using electrical appliances for other uses than that intended can lead to hazardous situations.

### Service

- Only have the device repaired by qualified and authorised staff. Only use original spare parts. In this way you can ensure that the appliance remains safe.

## 3.3 Operator's obligations

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### Operator

The operator is the person who operates the appliance for commercial or economic purposes either himself/herself or lets others use it and bears the legal appliance responsibility for protection of the user, staff or any third parties during operation.

### Operator's obligations

The appliance is used in commercial applications. For this reason, the operator of the appliance must meet all legal duties relating to work safety.

In addition to the safety instructions in this guide, the safety, accident prevention and environmental protection regulation applying to the application of the appliance must be complied with.

In particular, the following shall apply:

- The operator must be familiar with the applicable work safety regulations and identify, by carrying out a risk analysis, any additional hazards which are due to the place where the appliance is used. These hazards must be addressed in the form of operating instructions governing the operation of the appliance.
- Throughout the period of use of the device the operator must check that the operating instructions which he has compiled comply with the current regulations and adapt them if necessary.

- The operator must clearly regulate and define the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operator must ensure that all employees who use the device have read and understood these instructions. In addition, the operator must train the personnel and inform them of the hazards involved at regular intervals.
- The operator must provide the personnel with the necessary protective equipment and issue mandatory instructions on wearing it.

In addition, the operator must ensure that the appliance is always in a perfect technical condition. For this reason, the following shall apply:

- The operator must ensure that the maintenance intervals defined in this guide are obeyed.
- The operator must regularly check all safety devices for functionality and completeness.
- The operator must ensure that the appropriate media connections are present.
- The operator must ensure that structural safety measures are performed.

### 3.4 Personnel qualification requirements

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Safe operation requires certain technical skills and personal qualification of each person.

- The responsibility for organization lies with the **'Designated Representative'** (operator). According to EN 50110-1 a work supervisor is a person who is appointed to take direct responsibility for the performance of work. If necessary, this responsibility can be assigned partly to other persons. [...] The designated representative must instruct all persons involved in the work on all hazards which may not be obvious for them'.
- The work may only be performed by **'instructed persons'** who have been trained accordingly. Training, instructions must be repeated, proper understanding must be verified (ideally by way of an appropriate test).
- Unloading from the pallet (optional delivery condition) may only be carried out by suitable and trained operating personnel.
- Only **'Qualified Staff'** are allowed to carry out repair work. IEC 60204-1 defines qualified personnel as "persons who, on account of their training and relevant experience are in the position to recognise risks and avoid potentially dangerous situations."
- Electrical work may only be carried out by trained and experienced **electricians**. Electro-technically instructed persons may only work under the supervision of a qualified electrician.
- Handling refrigerant is only permitted by an expert, such as a **refrigeration** expert; applies to version with chilling compartment (option).
- Any repairs and/or overhaul during the warranty period may only be carried out by the manufacturer's service department of Rieber.



*Chapter 'Warranty and liability', page 64*



### 3.5 Provide protective equipment for personnel

- Ensure that the personnel wear the personal protective equipment appropriate to the relevant situation.
- Wear safety shoes to prevent injuries during transport.
- Wear protective gloves to prevent burns to hands and arms when using the warming compartment (option) and cooking accessories.


### 3.6 Appliance-specific safety instructions

This chapter describes appliance-specific safety instructions. In the following section, additional safety information relating to a particular operation or situation is placed before the appropriate operation step or description of the situation.

#### 3.6.1 Risks due to electricity

- Before carrying out repairs, maintenance and cleaning activities disconnect the appliance from the power supply by unplugging the mains plug. For example, if the high-performance grease separator, grease drip tray etc. are removed during cleaning, liquid could come into contact with electrical parts in the technical compartment practically unhindered.
- Connect the appliance to a socket with a series-connected residual current operated device (RCD) with a tripping current of 30 mA.

A qualified electrician can technically assess the need for potential equalisation.

-  Have potential equalisation carried out by a qualified electrician if necessary.

 [Page 14, 29 et seqq.](#)

- Before each use, inspect the product, the connecting plug and electric cable for any visible signs of damage.
- The cable must be routed so that it cannot be squeezed or overheated.
- The socket outlet must be easily accessible so that the unit can be disconnected from the power supply at any time.

### 3.6.2 Risks due to the wrong handling of the unit's extraction and circulating-air cleaning

The unit's extraction and circulating-air cleaning is not a replacement for an air-conditioning system. Always ensure an adequate supply of fresh air.

 **Contaminated ambient air, odour nuisance due to human error.**

---



#### **WARNING**

Health risks, respiratory disorders due to human error.

- ▶ Only use with original filter components, which are correctly mounted.
  - ▶ Do not interfere with the extraction and circulating-air cleaning. Do not place any objects on the active carbon filter in the technical compartment, for example. Only operate with a dry active carbon filter.
- 

 **Risks due to human error**



#### **Risk of fire**

Risk of fire due to missing or incorrectly mounted filter components.

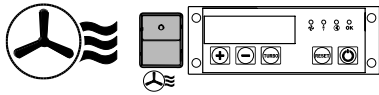
Risk of fire due to failure to clean grease-laden active carbon filters, grease drip trays etc.

- ▶ Only use with original filter components, which are correctly mounted.
- ▶ Clean the appliance correctly.
- ▶ Never operate the appliance unsupervised.

### 3.6.3 Risks due to opened technical compartment

The technical compartment contains electrical parts.

Before opening the technical compartment



- Switch the 'ON/OFF pushbutton with indicator light' to OFF.
- The LED is off.
- The fan wheel is stationary.

- Remove the mains plug if necessary.
- Use a suitable tool to open and close the technical compartment.
- Keep the technical compartment closed.

### 3.6.4 Risks during transport

The weight of the **empty appliance is around 240 kg; maximum permissible loading is 200 kg**. There are numerous hazards, such as crushing of parts of the body.

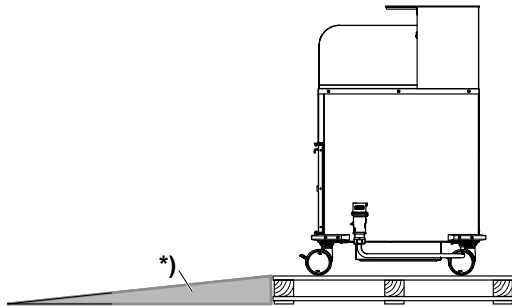
- Remove accessories and transport them separately.
- Disconnect the connection cable.
- Keep the doors closed during transport.
- Transport the appliance on a level surface. Do not transport on a sloped surface, as you could lose control of the heavy appliance and hazardous situations could result.
- Move the appliance with an adequate number of people, **at least 2**.
- Transport only permissible using the castors.
- Secure the appliance against inadvertently rolling away with the 'parking brake'.
- Wear safety shoes to prevent injuries.




#### ATTENTION

Uneven ground such as edges, ridges or thresholds can damage the castors.

- ▶ Only move the appliance over flat, smooth surfaces. Do not push or pull the appliance over sharp edges.
- ▶ Do not use this appliance with poor floor conditions.  
We are not able to rule out the possibility of marks appearing on the floor due to friction with castors or the formation of scratches due to split cracks in the castors, for example.



Transport on a pallet (option); \*) Ramp for loading and unloading (option)

-  **WARNING**  
Unloading from the pallet may only be carried out by suitable and trained operating personnel.  
Approx. 240 kg




### ATTENTION

Do not unload the appliance from the pallet using the fork-lift truck, as this could cause substantial damage.



- Unloading from the pallet (optional delivery condition) may only be carried out by suitable and trained operating personnel.

-  **User tip.** We recommend using a ramp to load and unload the appliance from the pallet. Contact the manufacturer.



*Transport instructions on the outside of the appliance*

### 3.6.5 Risks due to hot surfaces



- Switch the 'ON/OFF pushbutton with indicator light' to OFF.  
■ The LED is off.



110 °C

### **WARNING**

There is a risk of burning one's hands and arms on hot surfaces of the warming compartment (optional), which can reach temperatures of 110 °C.




- Wear personal protective equipment i.e. protective gloves.
  - Keep unauthorised persons away from the appliance.
  - Never operate the appliance unsupervised.
-

### 3.6.6 Risks due to cooking accessories

#### # As a general rule

All kinds of risks may occur if the wrong cooking accessories are selected.

➤ Only use correctly sized accessories.

➤  **User tip.** The cooking modules in the Rieber varithek<sup>®</sup> range are recommended. Roasting, grilling, cooking, wok cooking and frying.



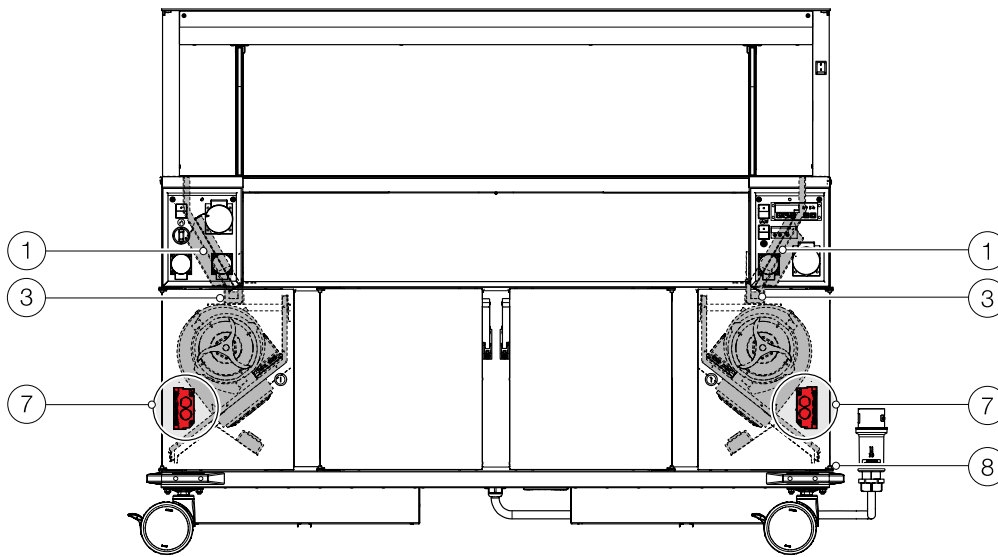
*Chapter 'Use of cooking units (accessories)', page 38*

### 3.6.7 Warnings concerning the use of the appliance by children

- This appliance may be used by children over 12 and by persons with limited physical, sensory and intellectual abilities or a lack of experience and/or knowledge if they are supervised or if they have been instructed in the safe use of the appliance and have understood the resulting dangers.
- When using the appliance with 'accessories', other risks may arise.
- Children may not play with the appliance.
- Cleaning and user maintenance may not be carried out by children without supervision.

### 3.6.8 Safety and monitoring devices

#### # Sensors for condition monitoring



- 1 High-performance grease separator, 4 pcs.
- 3 Grease drip trays; 4 pcs.
- 7 Pressure sensor
- 8 Connection to equipotential bonding

When the system is started, the pressure conditions (7) are monitored within around **1 minute**. In the event of pressure loss or a deviation of around 20% from the nominal condition, the plasma generator is stopped. The fans are not stopped.

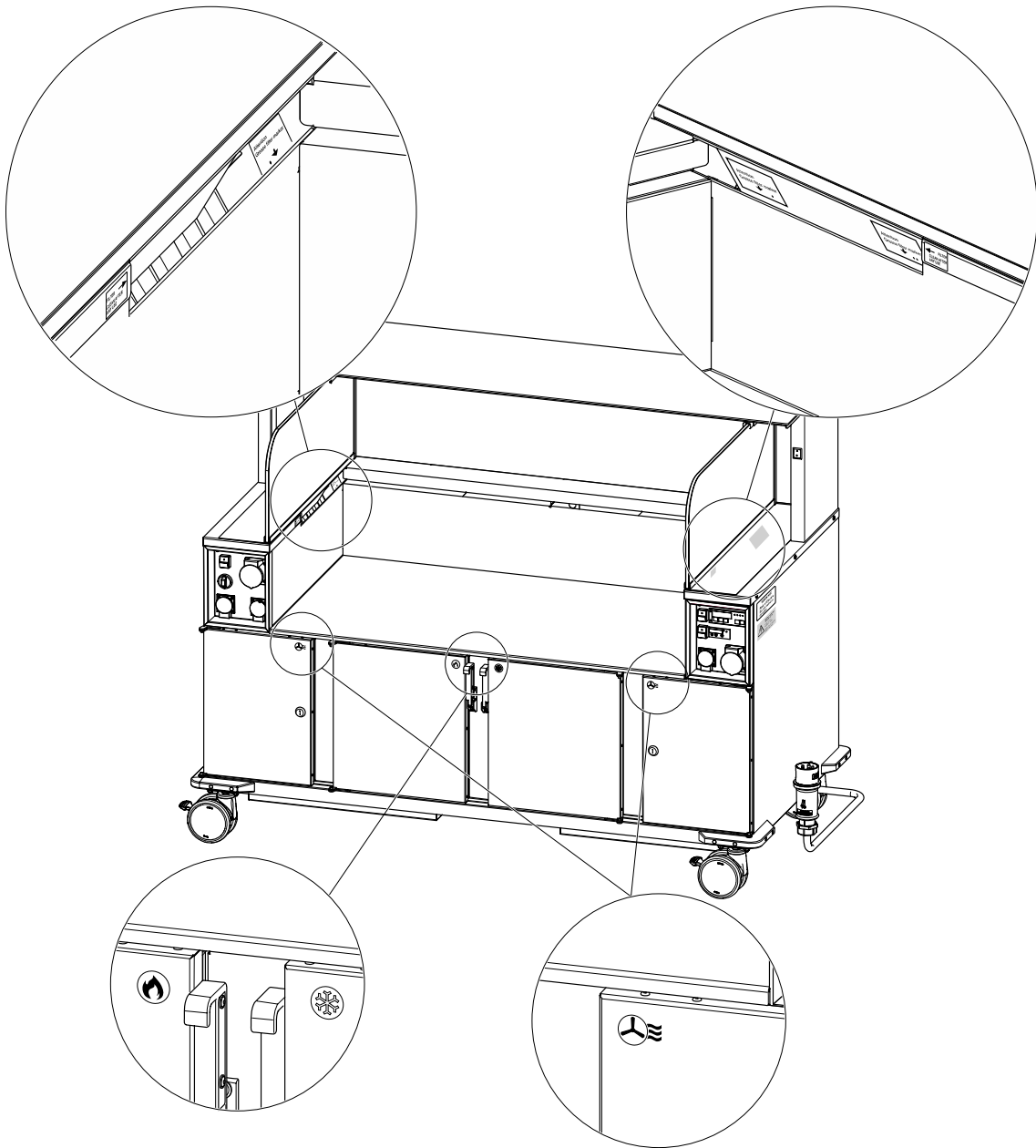
#### # More

- The circuits are protected by 8 circuit-breakers. The respective circuit-breaker must be switched on again.  
(Circuit breakers are located on the left and right behind the switch panels)
- Interruptions in the power supply do not cause malfunctions.
- High-performance grease separator (1) (100% flame propagation proof) with Cyclone® blade profile (separation efficiency approx. 95%).
- The pressure sensor (7) monitors the pressure conditions in the technical compartment. In the event of a fault the plasma generator is switched off, for example if the technical compartment is opened.
- In addition to protection against electric shock and in order to ensure that the frames of electrical equipment and any external conductive components are at an equal (or practically equal) potential, the appliance must be connected to the equipotential bonding system. The connection of all conductive bodies (housing) of electrical equipment to an earthed protective conductor and the main earthing bar is the basic principle for protection against electric shock. A qualified electrician can technically assess the need for potential equalisation. Have the equipotential bonding carried out by a qualified electrician.



*See chapter 'Safety information with regard to use', page 29 et seqq.*

### 3.7 Ensure preservation of the product identification



The product identification of your appliance on the type plate provides important technical data for use and a unique identification, which is necessary for replacement and wearing parts, for example. Safety instructions assist safe handling.

- Regularly check that the appliance is correctly identified. Inspect this at least 1x annually.

### General



Technical compartment,  
extraction



Chilling compartment  
(optional)

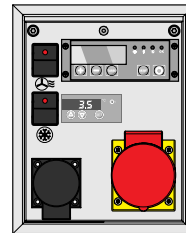
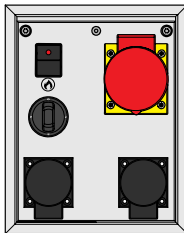


Warming compartment  
(optional)

- The type plate bears the legally required product data.
- High-performance grease separators are marked with **raised points**. These markings can also be found on the counterpart or frame.

Example

W/C  
(warm /  
cold)

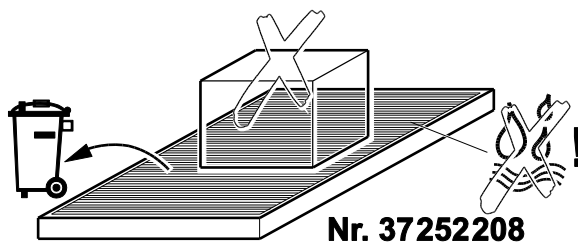


### # Product identification in the side extractors at front left / right

- The high-performance grease separators are marked with raised points. These markings are also found on the housing in the cooking area.
- The filter mat is blue on the visible side.  
Order no. 91 70 05 15





### Product identification in technical compartment


Identification of the active carbon filter:





Identification on the inside of the door of the technical compartment:

	 <b>WARNUNG</b>
	<p><b>Gesundheitsgefahren, Atemwegsbeschwerden</b></p> <ul style="list-style-type: none"> <li>▶ Aktivkohlefilter von Rieber verwenden.</li> <li>▶ Stellen Sie keine Gegenstände darauf ab.</li> <li>▶ Jeglicher Eingriff in den Plasmagenerator ist unzulässig.</li> </ul>
	 <b>WARNING</b>
	<p><b>Health risks, respiratory disorders</b></p> <ul style="list-style-type: none"> <li>▶ Use Rieber active carbon filter.</li> <li>▶ Do not put any objects on the filter.</li> <li>▶ All interference with the plasma generator is forbidden.</li> </ul>
	 <b>AVERTISSEMENT</b>
	<p><b>Dangers pour la santé, problèmes respiratoires</b></p> <ul style="list-style-type: none"> <li>▶ Utilisez un filtre à charbon actif de Rieber.</li> <li>▶ Ne déposez jamais aucun objet sur le filtre.</li> <li>▶ N'effectuez aucune intervention non autorisée sur le générateur de plasma.</li> </ul>

	<p><b>Vor Öffnen des Gerätes den Netzstecker ziehen.</b></p> <p><b>Unplug the mains plug before opening the appliance.</b></p> <p><b>Avant d'ouvrir l'appareil retirez la fichemâle.</b></p>
---	--

### 3.8 Note about applicable appliance-specific regulations

In addition to this user guide there are a range of health and safety and other regulations that are relevant for the operation of this cooking station; these include HACCP food hygiene regulations for example.

#### # Fulfillment of standards and guidelines

- VDI directive 2052 Air-conditioning systems. The unit's extraction system is not a replacement for an air-conditioning system.

### 3.9 Instructions on behaviour in an emergency

---

- In an emergency always interrupt the power connection immediately, by disconnecting the electrical connector.

**⚠ First aid in the event of burns to hands and arms, crushing of feet, electric shock**

- Inform yourself on this before commissioning the appliance.
- Store the emergency equipment, including the relevant instructions, at a readily accessible place near the place of use.



**User tip**

- ▶ Inform yourself in details by reading the in-house operating instructions.
- ▶ We recommend that half-yearly emergency training sessions should be carried out.

**⚠ First aid in the case of inexplicable mucosal irritations or strong tickle in the throat.**

---

**⚠ WARNING**



Breathing difficulties, lacrimal irritation, mucosal irritations in throat, neck and lungs, headache, strong tickle in the throat, cannot be excluded in the case of human error.

The cause may be: original Rieber filter was not used; filter incorrectly installed; circulating air is disrupted, or an object is located on the active carbon filter in the technical compartment.

- ▶ Remedy any defective condition.
- ▶ Seek medical treatment if necessary. Ozone-containing air can trigger complaints.



*Chapter 'Cleaning, maintenance and care', page 39 et seqq.*

## 4 Purpose

This chapter describes the intended use and contains warnings against misuse, for your safety.

### **Generally, the following are intended uses for the product:**

- For mobile service in the catering, hotel, and food processing industry; also suitable for the care and school catering sectors.
- For neutral, cold or hot transport, storage or dispensing of food.
- To prevent persons from burning themselves on hot surfaces, use of the product in public/for self-service should only be allowed under constant supervision.
- Wear personal protective equipment such as safety shoes when moving the appliance. Wear protective gloves which will prevent you from burning your arms or hands on the hot parts, such as the heating element, hot parts, objects and meals.
- Connect a residual current operated device (RCD) with a tripping current of 30 mA in series on site.
- The intended use includes compliance with the technical data.
- For use only by appropriately trained and suitable operating personnel.

### **Prevent any predictable misuse and abuse:**

- Only use with original filter components, which are correctly mounted.
- Use correctly sized cooking units. We recommend the cooking modules in the Rieber varithek® range. Boasting, grilling, cooking, wok cooking and frying. The relevant operating instructions must be observed.
- The integrated **air-cleaning-system acs** ensures that the extracted air is passed back into the room odour-free. This is not a replacement for an air-conditioning system.
- Any inference in the 'plasma generator' is forbidden.
- Do not use gas cooking units, as this can be dangerous.
- Do not flambé, as this can be dangerous.
- Do not operate the appliance unsupervised. To prevent injuries such as burns on hot surfaces, use of the product by the public should only be allowed under supervision.
- No error message is given in the event of a power failure. Operate the appliance under supervision.
- The appliance is used stationary, without being moved.
- Not intended for private use at home.
- Do not lean against or sit on the appliance.
- Keep any combustible or explosive fluids away from heated appliances. Otherwise a fire or explosion may occur.
- Incorrect cleaning can substantially and irreparably damage the stainless steel surfaces.

### 5 Description of device

This chapter provides useful information on the structure and function of the equipment.

#### 5.1 Designation



Example

W/C  
(warm /  
cold)

- 1 2x compartments with 8 support ledges each → Options: hot - cold - neutral
- 2 Technical compartment → radial fan, plasma generator
- 3 Castor with parking brake' → Secure the position with the four parking brakes.
- 4 Operator's controls and power connections for the cooking units → on both sides of the unit
- 5 Suction → 3-sided suction of fumes and vapours
- 6 Sneeze guard attachment → including shelf for serving food, with light, with fixed splash guard on the back of the appliance, with splash guard on both sides /removable
- 7 Connection for equipotential bonding
- X Attachment with spice container (CNS, 3 x GN 1/9), left or right, (accessories)  
Order no. 91 14 02 55

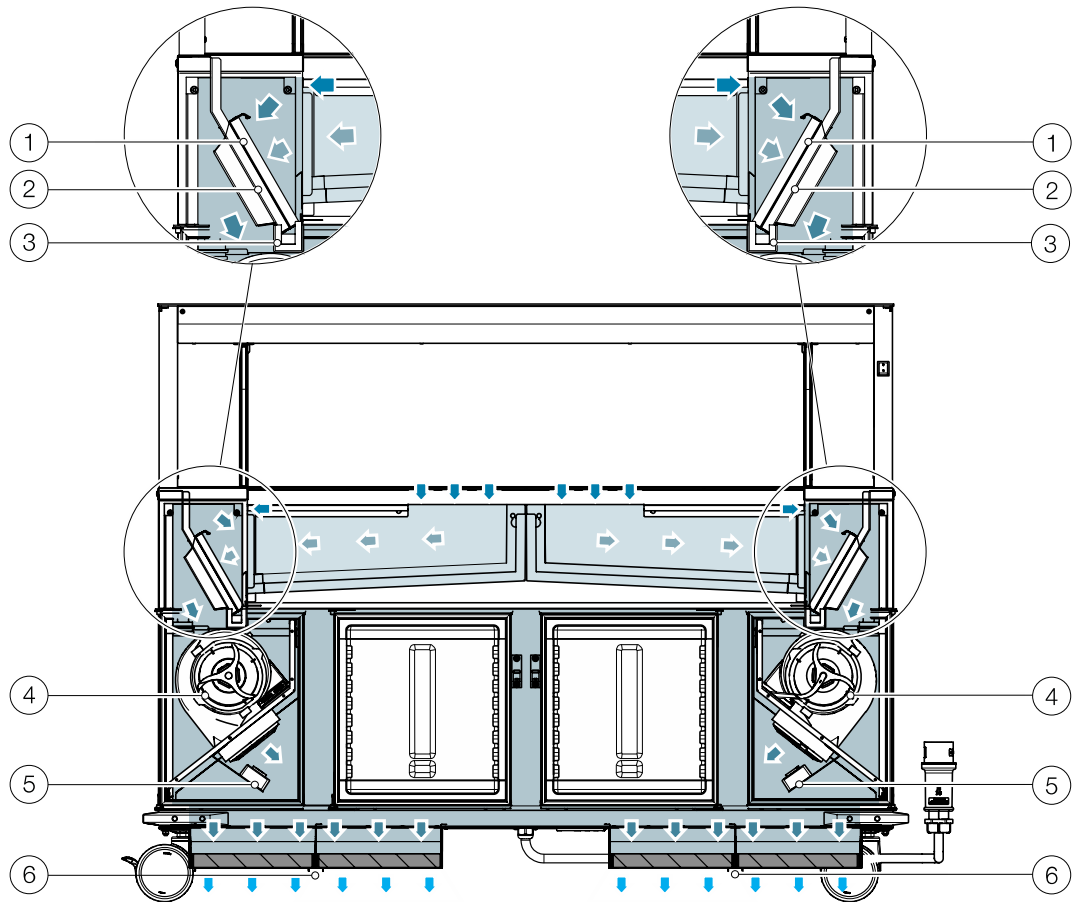
#### # Electrical operating and display elements



Page23 et seqq.

## 5.2 Extraction of vapour and steam

The patented **air-cleaning-system acs** collects the vapour and steam that occur during cooking at the point of origin, cleans them in a sophisticated filter system and then passes them back into the room free from odours.



- 1 High-performance grease separator, 4 pcs.
- 2 Filter mat (visible side is blue); 2 pcs.
- 3 Grease drip trays; 4 pcs.
- 4 Radial fan; 2 pcs.
- 5 Plasma generator; 2 pcs.
- 6 Active carbon filter; 4 pcs.

Edge extraction at front left / right and at rear.

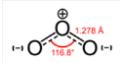
**Active carbon filter.** Adsorbed substances accumulate in the carbon. Substances to be filtered are physically absorbed by means of the active carbon filter.



### Application tip

If the extraction is interrupted, unpleasant odours can develop.

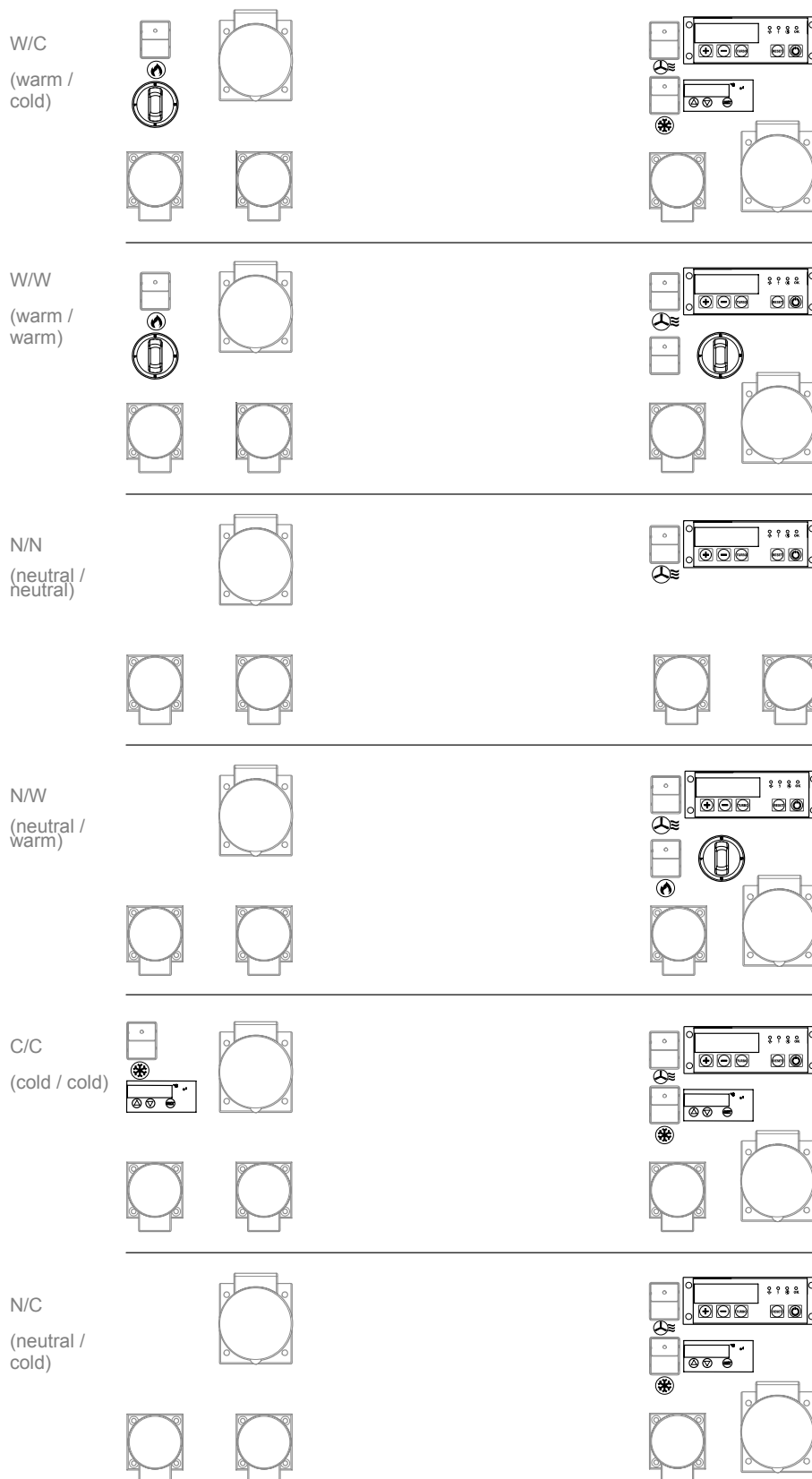
- ▶ Make sure that the upper edges of the cooking units do not exceed the maximum upper edge according to the product identification in the cooking area.
- ▶ Place cooking units that generate greater odour on the left or right side during cooking and roasting, as the extraction effect is more intensive here.



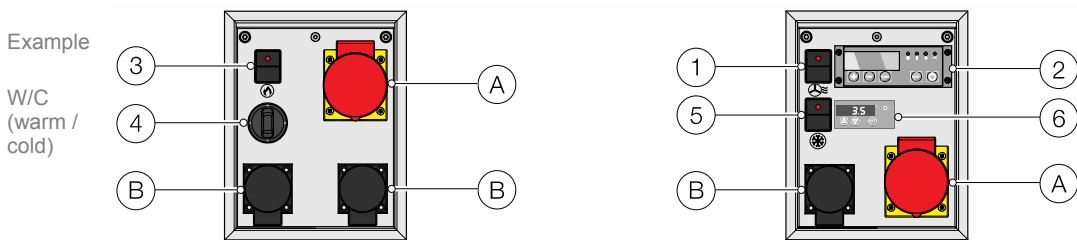
The **plasma generator** converts odorous substances into odourless substances. Germs and odour-causing bacteria are also killed in the process.

**Active carbon filter.** Adsorbed substances accumulate in the carbon. Substances to be filtered are physically absorbed by means of the active carbon filter.

### 5.3 Operating and display elements of the digital control



### # Electrical operating and display elements



- A CEE socket, 400 V, 16 A  
B Shock-proof socket 230 V, 16 A

- 1 ON / OFF switch for extraction and circulating-air cleaning
- 2 Operating panel for adjusting the intensity of the extraction and circulating-air cleaning
- 3 ON / OFF switch for the warming compartment
- 4 Dial for adjusting the heating temperature
- 5 ON / OFF switch for the chilling compartment
- 6 Dial for adjusting the chilling temperature

### # CHECK HACCP

In the area of HACCP documentation the CHECK CLOUD platform offers the CHECK HACCP digital system, for simple, safe and transparent temperature detection. In addition to this, further digital features are possible in the area of hygiene and service management. The automated digital answer to the analogue paper trail.

The HACCP-relevant data are recorded using two different methods:

Mobile CHECK and Auto CHECK. The browser-based CHECK Cockpit enables the management, visualisation and evaluation of the collected process data.

- Mobile CHECK: Manual temperature measurement using bluetooth-capable core temperature sensor and CHECK app. Simple hygiene and service management with flexible, individually adaptable checklists and additional photo and text function via the CHECK app.
- Auto CHECK: Retrofittable or permanently installed sensors, which send data to the database at predefined intervals.



*Further information: See "Services" under  
[www.riber.de](http://www.riber.de)  
Please contact Rieber customer service.*



## 5.4 Technical data

Rated voltage / mains frequency	3N AC 400V 50/60Hz
Power consumption	Maximum 22 kW
Electrical connection	CEE plug 32 A, cable length approx. 3 m Connect the appliance to a socket with a series-connected residual current operated device (RCD) with a tripping current of 30 mA.
<b>Warming</b> compartment (optional)	Thermostat-controlled from +30 °C to +110 °C; Heated with 1 heating element per compartment 1/1, heat output separately adjustable
<b>Chilling</b> compartment (optional)	From +2 °C to +10 °C, automatic defrost function, Refrigeration capacity 180 watts at VT -10 °C, refrigerant R134a → Observe a minimum distance of ≥ 0.5 m from walls. Do not close off at the front with a base, partition or similar.
<b>2x multipurpose compartments</b>	8 pairs of seamless deep-drawn support rails, clearance 37 mm, for holding GN containers up to GN 1/1. Doors double-walled and self-closing. <b>Hygiene standard H3.</b> Separately controllable. In the version with 'dry-heated' compartment cooking at a low temperature is thus also possible.  Optional variants: Article no. 91 14 04 07    acs 1600 03 digital W/K (warm / cold) Article no. 91 14 04 08    acs 1600 03 digital W/W (warm / warm) Article no. 91 14 04 09    acs 1600 03 digital N/N (neutral / neutral) Article no. 91 14 04 10    acs 1600 03 digital N/W (neutral / warm) Article no. 91 14 04 11    acs 1600 03 digital K/K (cold / cold) Article no. 91 14 04 12    acs 1600 03 digital N/K (neutral / cold)
Weight incl. attachment	Approx. 237 kg
Permissible loading	maximum 200 kg
Protection class	IPX4 according to DIN EN 60529 → Unit offers protection against water splashes on all sides. → Only use unit inside buildings. Protection against penetrating moisture is required.
Electrical fuse	Line circuit breakers are located in the unit.
Air capacity in accordance with DIN 61591	Circulating air 1250 m <sup>3</sup> per hour
Ambient temperature	From +5 °C to +40 °C
3-sided splash guard	Stainless steel. Laminated safety glass
Rustproof castors	In accordance with DIN 18867, part 8. Wheel diameter 125 mm. 4 x swivel castors with parking brake
Material	Stainless steel 18/10, WN 1.4301
Emission sound pressure level	$L_{pa} \leq 70$ dB(A)
Disposable packaging	

## Description of device

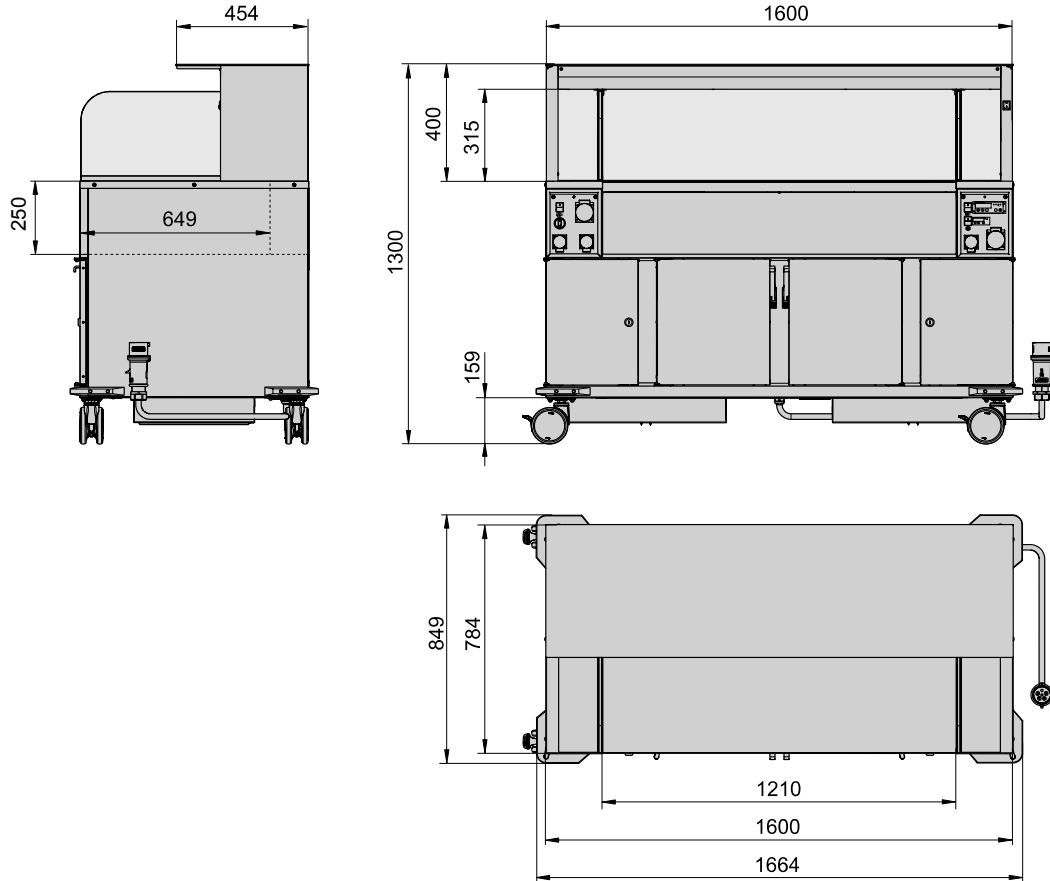


Equipotential bonding on the underside of the appliance. This protective measure serves for additional safety. Standard-compliant implementation with subsequent inspection of the system is carried out by a qualified electrician.



IEC 60364-5-54:2011; for Germany DIN VDE 0100:540:2012-06

Dimensions



Example

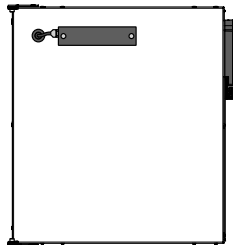


... for maximum three varithek® cooking units (with and without system module)

**# Temperature sensor in compartment door (can be optionally retrofitted)**

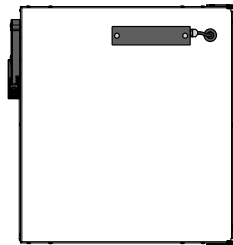
→ For compartment for keeping warm

→ For chilling compartment



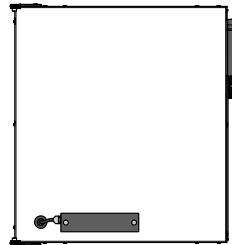
WARM CHECK  
... opens to the left

Order no.:  
58 13 21 49



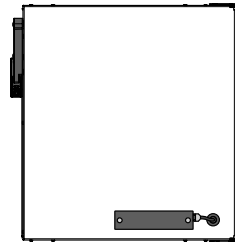
WARM CHECK  
... opens to the right

Order no.:  
58 13 21 47



COLD CHECK  
... opens to the left

Order no.:  
58 13 21 50



COLD CHECK  
... opens to the right

Order no.:  
58 13 21 48

## 6 Before First Use

This chapter describes the measures to be taken before use.

### 6.1 Transport

**# Check/handle any transport damage**

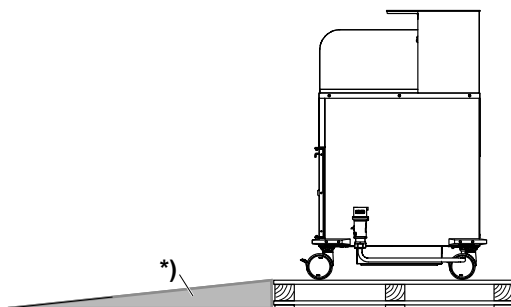
- Immediately after delivery, visually check the appliance for any transport damage.
- Document any potential transport damage on the consignment note in the presence of the haulage contractor. Have the damage confirmed by the haulage contractor (with signature).
- Decide if you wish to keep the appliance and report the defect using the consignment note, or if you wish to reject the appliance.

■ By following this procedure you will ensure proper claim settlement.


**# Unpack**

- Open the transport packaging at the positions provided for this purpose. Do not tear or cut.
- Remove any packaging remnants.

**# Unload appliance from the pallet**



Transport on a pallet (option); \*) Ramp for loading and unloading (option)

-  **WARNING**  
Unloading from the pallet may only be carried out by suitable and trained operating staff.  
Approx. 240 kg




### ATTENTION

Do not unload the appliance from the pallet using the fork-lift truck, as this could cause substantial damage.



- Unloading from the pallet (optional delivery condition) may only be carried out by suitable and trained operating staff.

-  **User tip.** We recommend using a ramp to load and unload the appliance from the pallet. Contact the manufacturer.



*Separate transport instructions can be found on the exterior of the device*

### # Dispose of packaging material

- Dispose of the disposable packaging with respect for the environment.

## 6.2 Before using for the first time...

---

### Preconditions

- The appliance shows no defects or visible damage.
- The appliance is at room temperature and is dry.



### ATTENTION

Protective foils or heat-sensitive objects at/in the appliance might damage the appliance during heating.

- Ensure that there are no protective foils on the inside or outside of the appliance. Remove protective foils from the warming compartment (optional).

### # Clean the appliance

- Clean the appliance before using for the first time.  
Clean with a damp cloth and rub dry with a clean cloth.



*See chapter 'Cleaning, maintenance and care', page 39*

## 7 Use

### 7.1 Safety information with regard to use

#### ⚠ Comply with the principles for operation

- Before use, check the appliance for any visible damage.
- Only use in dry rooms in the building.
- Never operate the appliance unsupervised.
- Only operate the appliance with adequate lighting.

#### ⚠ Prevent risks during the transport of the mobile appliance.

The weight of the **empty appliance** is around **240 kg**; **maximum permissible loading is 200 kg**. There are numerous risks, such as crushing of parts of the body.

- Disconnect the connection cable. Only transport the product on straight surfaces. Carry out transport with an adequate number of people, **at least two**. Always secure the position with the parking brakes. Keep the doors closed during transport. Wear safety shoes to avoid injuries.
- Do not use the appliance as a means of transport. Remove the cooking units before transport by HGV.



#### ➤ ATTENTION

Only move the appliance over flat, smooth surfaces, not over edges.

#### ⚠ Avoid risks from the warming compartment (optional)



#### ⚠ Risk of burns to hands and arms. Risk of fire

When working in the area of the warming compartment (optional) there is a risk of burning one's hands and arms on hot surfaces up to **110 °C**.



- ▶ Wear protective gloves.
- ▶ Be careful.
- ▶ Keep flammable materials away from the product.
- ▶ Never operate the appliance unsupervised.

### **Avoid risks from the chilling compartment (option)**



#### **Risk of slipping and falling**


If the compartment is not filled with adequately pre-chilled food, condensation may form and run out of the door. Risk of slipping and falling due to human error.

- ▶ Only fill the compartment with adequately pre-chilled, packaged/wrapped food. Introduce food pre-chilled to storage temperature.
- ▶ Immediately after filling the compartment close it and do not open again until just before serving.
- ▶ Empty and clean the refrigerated compartment at least 1x daily. Do not use incorrectly for continuous cooling.

### **Avoid general known risks due to electricity**


- Connect the appliance to a socket with a series-connected residual current operated device (RCD) with a tripping current of 30 mA.

A qualified electrician can technically assess the need for potential equalisation.

-  Have the equipotential bonding carried out by a qualified electrician.
- Before each use, inspect the product, the connecting plug and electric cable for any visible signs of damage.
- The cable must be routed so that it cannot be squeezed or overheated.
- The socket outlet must be easily accessible so that the unit can be disconnected from power supply at anytime.
- Never direct a jet of water at electrical components such as heater, controller or ventilation grille.

### **Avoid risks due to electricity → equipotential bonding**

A qualified electrician can technically assess the need for potential equalisation.

-  Have potential equalisation carried out by a qualified electrician if necessary.

If more than one cooking unit is placed in the placement niche of the acs, these cooking units must be connected together using their equipotential bonding (which is also located on the base of these units). One of these cooking units is then connected to the equipotential bonding system of the acs.

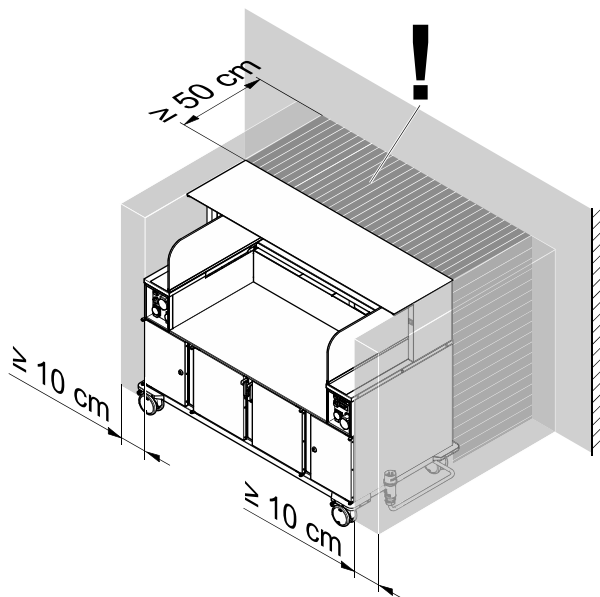
If only one cooking unit is used, this must also be connected to the equipotential bonding system of the acs.

If several varithek® **acs 1600 O<sub>3</sub>** appliances are placed next to each other, these should also be connected together, to equalise any difference in voltage (static charge).

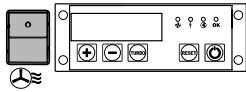
**⚠ Maintain distance around the appliance****ATTENTION**

Significant damage and malfunctions possible if minimum distances around the appliance are not maintained.

- ▶ For appliances with a **chilling compartment**, maintain a **minimum distance** from the wall of **≥ 0.5 m** at the back.
- ▶ Otherwise, generally maintain a lateral distance of **at least 10 cm**.
- ▶ Do not close off at the front with a base, partition or similar. Otherwise aeration and ventilation would be impeded and safe operation would be affected.
- ▶ Maintain a minimum distance from walls, to prevent fingers, clothes, etc. from getting caught when putting food in/taking food out.



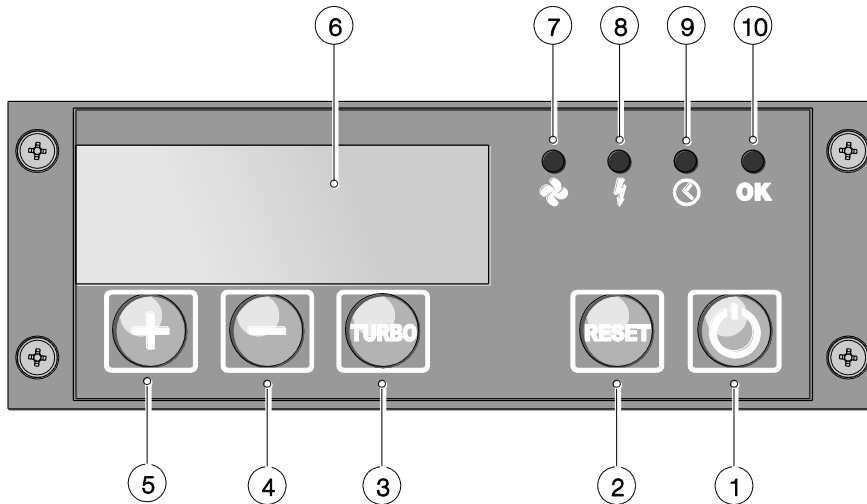
## 7.2 Electronic fan control



The extraction is centrally adjustable; it occurs on three sides, at the rear, left and right.

The control point is arranged on the right on the operator side.

### 7.2.1 Operating panel



#### Button

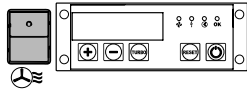
- 1 ON/OFF
- 2 RESET
- 3 TURBO
- 4 Decrease ventilation intensity, levels 4 to 1
- 5 Increase ventilation intensity, levels 1 to 4

#### Display

- 6 LED display
- 7 LED fan fault, red = alarm
- 8 LED plasma fault, red = alarm
- 9 LED filter usage time exceeded, red = alarm
- 10 LED OK, green = fault-free



## 7.2.2 Switching on / Switching off

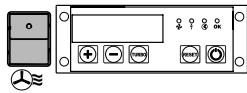
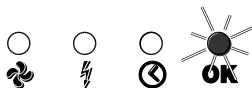


- Switch the ON/OFF pushbutton to ON.
  - Control is in STANDBY.
  - When the control (1) is switched on, the OK LED shows a green light.
  - During normal operation the OK LED shows a green light (10). The extraction system starts at the lowest fan speed, level 1.



This must be additionally switched on when the electronic fan control is switched off.

- Switch the **ON/OFF** button (1) to ON if necessary.



Allow the ventilation to run on briefly if necessary, so that the vapours rising due to residual heat cannot spread to the surrounding environment.

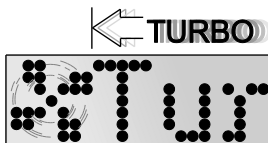
- Switch the ON/OFF pushbutton to OFF.
  - The display goes out. The display is black.

## 7.2.3 Adjust ventilation intensity



### Adjust intensity, levels 1 to 4

- Press the PLUS button (5), to increase the level.  
Press the MINUS button (4), to decrease the level.
  - The selected level and the fan icon appear in the display.



TURBO is the highest ventilation intensity level.

### Adjust TURBO

- Press the TURBO button (3).
  - The fan icon and TURBO appear in the display.



- After 5 minutes the fan switches back to the last selected ventilation intensity.

### 7.2.4 Notes on troubleshooting



#### WARNING

Danger of electric shock. Dangerous electrical voltage.

- ▶ Repairs may only be carried out by specialists
- ▶ Any interference in the 'plasma generator' is forbidden.



In the event of a fault a continuous acoustic tone is emitted.

- ▶ Press **ON/OFF** button (1).
- The fan control is switched off.

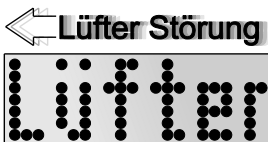


- ▶ Press the **RESET** button.
- The continuous tone stops.

- ▶ Eliminate the fault or arrange for repair by a specialist.

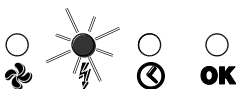
### 7.2.5 Messages and measures for fault elimination

A fault is indicated in the display. If several faults are present at the same time, the fault with the highest priority is displayed. The fault display replaces the fan operating state display. Faults (7), (8), (9) remain illuminated until they have been eliminated and acknowledged.



#### Check for possible errors:

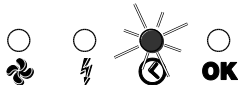
- ▶ Is the technical compartment closed?
- ▶ Are the filters in the technical compartment free from objects?
- ▶ Are the Rieber active carbon filters correctly inserted?
- ▶ Are the high-performance grease separators, grease drip trays and filter mats correctly mounted in the air supply area?
- ▶ Is the fan defective? No air flow?



#### Check for possible errors:

- ▶ Is the technical compartment closed?
- ▶ Is the plug of the radial fan / plasma generator inserted?
- ▶ Are the active carbon filters correctly positioned?

## 7.2.6 Messages due to exceeded usage times



If the usage time is exceeded:

- The red usage time LED lights up.
- A continuous acoustic tone is emitted.
- The text shown on the display indicates the necessary measure.



The time intervals for cleaning the high-performance grease separators are no more than 12 operating hours.

### Clean grease filters

- **Risk of fire**  
Clean the high-performance grease separators and reinsert them correctly with the other filter components.
- Replace filter mat if necessary.

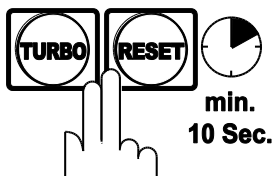


The time intervals for replacing the Rieber active carbon filters are no more than 500 operating hours. Only use the filter type specified in the display.

### Replace Rieber active carbon filter

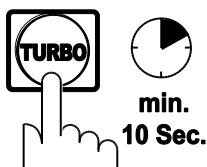
- Replace the Rieber active carbon filters in the technical compartment.

## 7.2.7 Reset usage times, display operating hours



### Reset the usage time counters to '0'

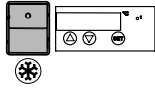
- Carry out the maintenance work correctly as indicated in the display. Only then should you reset the message. To do this:
- Still in off mode, press the TURBO and RESET buttons simultaneously for at least 10 seconds.
  - The counters are set to '0' counter status.



### Display operating hours

- Press the TURBO button and hold it pressed for at least 10 seconds.
  - The total number of operating hours is shown in the display. This is the time during which the fan control is switched on. The display cannot be reset.

## 7.3 Chilling compartment (option)



The chilling compartment can be switched ON/OFF separately. Adjustable from +2 °C to +10 °C.

The chilling compartment is marked with the same symbol.

### ⚠ Comply with the HACCP regulations

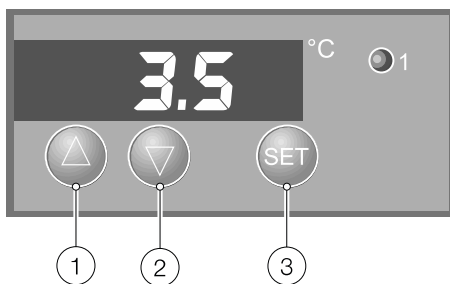
- Pre-chill the empty chilling compartment before use.
- Only fill the appliance with adequately pre-chilled, packaged/wrapped food.
- Leave free space in the appliance. Due to the air convection and the filling state of the appliance, the ACTUAL temperature may deviate from the control temperature.
- **⚠ WARNING**  
Only introduce food pre-chilled to storage temperature. Only open the refrigerated compartment briefly and close it again immediately. Empty and clean the refrigerated compartment at least 1x daily. Do not use incorrectly for continuous cooling.

### # Switch ON/OFF

- Switch the appliance to ON or OFF using the ON / OFF rocker switch.
  - The display shows the ACTUAL temperature.
  - The pre-chilling time should be **30 minutes**, with an empty compartment and normal ambient conditions.

### # Query set temperature

- Press the SET button (3) to display the SET temperature.



- 1 Arrow button: Increase temperature
- 2 Arrow button: Decrease temperature
- 3 SET button

### # How to change the set temperature

- To change the set temperature, keep the SET button pressed and use buttons (1) and (2) to edit the value.
  - The adjusted value is saved automatically.



### User tip

- ▶ Use Gastronorm containers and thermoplates® from Rieber.

## 7.4 Warming compartment (optional)



The warming compartment can be switched ON/OFF separately.  
Adjustable from +30 °C to +110 °C.



The warming compartment is marked with the same symbol.

### Comply with the HACCP regulations

- Heat up the empty warming compartment before use.
- Only fill the appliance with adequately pre-heated, packaged/wrapped food.
- Leave free space in the appliance. Due to the air convection and the filling state of the appliance, the ACTUAL temperature may deviate from the control temperature.
- Empty and clean the compartment at least 1x daily.

### # Switch ON/OFF

- Switch the appliance to ON or OFF using the ON / OFF rocker switch.
  - The green indicator light illuminates when the heating function is switched on.

### # Set desired temperature

Heating range, 3-stage                      Approx. **+35 °C — 70 °C — 110 °C**

- Set the desired power on the control dial.
  - A heating-up time of around **45 minutes** is required to reach the maximum temperature, with an empty compartment and normal ambient conditions.



110°C

### WARNING

When working in the area of the warming compartment (optional) there is a risk of burning one's hands and arms on hot surfaces up to 110 °C.



- ▶ Wear personal protective equipment i.e. protective gloves.
- ▶ Be careful.

- Switch the appliance OFF **after use** at the ON / OFF switch and turn the **dial to the OFF position**.

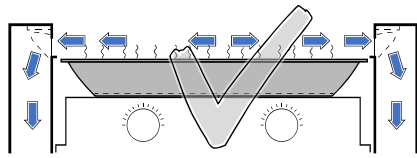


### User tip

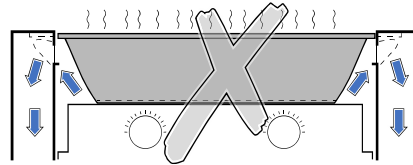
- ▶ Use Gastronorm containers and thermoplates® from Rieber.

## 7.5 Use of cooking units (accessories)

### # Ensure undisturbed extraction of steam and vapours



RIGHT



WRONG



#### Application tip

Ensure undisturbed extraction of steam and vapours.

- Make sure that the top edge of the cooking unit is below the top edge of the cooking area.
- Place cooking units with a greater odour development during cooking and baking on the left or right side, where the extraction is more intensive.
- Use cooking modules from the Rieber varithek® range.  
Baking, grilling, cooking, wok cooking and frying. "varithek® 2.0" from Rieber.  
For maximum three varithek® cooking units (with and without system module)

### ... Observe the rules for using the deep-fryer



#### Application tip

- Use only one deep-fryer per unit, otherwise odours may arise.
- Use the multipurpose cooking unit  
"Pasta cooker 4.0 | Deep-fryer 4.0" from Rieber

Order no.: 91 10 01 05

### # Observe the rules for selecting and using the cooking units

- Use correctly sized cooking units. Observe the instructions in the relevant operating manual.

## 7.6 Clean the appliance daily after use

-  **Risk of fire**  
Clean the appliance daily after use.



*Chapter 'Cleaning, maintenance and care', page 39*

## 8 Cleaning, maintenance and care

### 8.1 Safety information relating to cleaning, maintenance and care

#### Avoid dangers due to electricity



#### **WARNING**

Danger of electric shock. Risk of death.



- ▶ Disconnect the appliance from the power supply before carrying out repair and maintenance work; Do this by unplugging the power plug.
- ▶ Protect the appliance against moisture. Never direct a jet of water at electrical components such as heater, controller or ventilation grille.
- ▶ Do not use a steam cleaning unit to clean electrical appliances. Doing so may allow moisture to get into the electrical system and cause a short circuit. Do not expose to spray water. Wipe electrical parts with a moist cloth only and dry the surface using a dry cloth.
- ▶ <sup>1</sup> Have electrical equipment inspected by a qualified electrician in accordance with DGUV. Define the inspection cycle according to the conditions of use. Generally this is every 12 months.

#### Risks due to human error

#### **WARNING**



Breathing difficulties, lacrimal irritation, mucosal irritations in throat, neck and lungs, headache, strong tickle in the throat, cannot be excluded in the case of human error.

- ▶ Only use with Rieber active carbon filters, which are correctly mounted.
- ▶ Do not interfere with the extraction and circulating-air cleaning: Do not place any objects on the Rieber active carbon filter in the technical compartment. Only operate with a dry Rieber active carbon filter.
- ▶ Cleaning, maintenance and care may only be carried out by appropriately trained and authorised operating personnel.

<sup>1</sup> Source: DGUV Regulation 3. Electrical Systems and Equipment

### **Avoid burns, risk of fire**

---



#### **WARNING**

When working in the area of the warming compartment (optional) there is a risk of burning one's hands and arms on hot surfaces up to 110 °C.



- ▶ Allow the hot appliance to cool down first of all.
  - ▶ Wear protective gloves.
  - ▶ Keep flammable materials away from the product.
- 



#### **Risk of fire**

Risk of fire due to missing or incorrectly mounted filter components or lack of cleaning.

- ▶ Only use with original filter components and grease drip trays, which are correctly fitted.
  - ▶ Clean the filter components in the extraction area daily after use.
-



## 8.2 Cleaning agents for stainless steel

### # The following applies for all cleaning agents:

- Observe the instructions for use provided by the cleaning agent manufacturer.

### # Mechanical cleaners for stainless steel

Cleaning agent	Suitable
Brush products	Brushes with natural or synthetic bristles
Textiles	Textile material comprising natural and chemical cleaning fibres and textile fabrics (knitted and woven fabric, cleaning cloths, floor cloth, fringed material, fleece). Microfibre cleaning textiles are ideal for removing finger marks from stainless steel surfaces.
Synthetic fleece	Without abrasives. Mainly produced in the colours white, beige, yellow.
Other	Natural leather (chamois), synthetic leather, synthetic fleece, sponges, sponge cloths

### # Chemical cleaners for stainless steel

Cleaning agent	Areas of application
All-purpose cleaners	Particularly for lighter grease stains.
Neutral cleaners	For surfaces soiled with grease and oil (fingerprints); also suitable as a dishwashing detergent.
Alcohol cleaners	As all-purpose cleaner
Alkaline cleaners	Especially for heavy grease and oil stains (dried-in oils). Observe the manufacturer's dosage instructions.
Solvent cleaners	Depending on the type, particularly good for the removal of grease, oil, wax, tar, adhesives, paints and lacquers. Not suitable for plastics.
Disinfectant cleaners	Effect on pathogenic germs differs depending on active disinfectant ingredient. Long-term exposure to sodium hypochlorite can cause damage to the material. It should not be used if possible. Products should be used, which are specified in the list of the German Society of Hygiene and Microbiology (DHGM).

## 8.3 Choose the correct cleaning method

---



### ATTENTION

Incorrect cleaning can damage the surface or even destroy the appliance. Please note:

- ▶ Do not scratch the surface with sharp-edged objects. Do not use any abrasive or aggressive cleaning agents, such as oven spray or a sponge with an abrasive surface.
- ▶ Remove dirt with cleaning and care products that are suitable for stainless steel.
- ▶ Do not mix commercially available cleaning agents; do not make your own cleaning agent.
- ▶ Do not use steel wool or steel brushes.
- ▶ Avoid extended exposure of stainless steel to liquid containing salt, as this can lead to surface discolouration and corrosion.
- ▶ Avoid direct, extended contact of stainless steel with corroding iron parts, e.g. cast iron pans or steel kitchen sponges.

### # Note on regular cleaning

Abrasive-free cleaning agents are primarily used for regular cleaning.

Grease stains or grease-bound pigment dirt can generally be easily removed with

- All-purpose cleaners
- Neutral cleaners
- Alkaline cleaners.

Solvent cleaners or non-abrasive emulsions are helpful for very heavy grease stains (dried-in oil and grease) and tar marks (but not on painted surfaces).

### # Clean and service stainless steel parts

→ Applies to the stainless steel housing of the appliance, the chilling compartment, warming compartment, neutral compartment, exterior and interior compartment doors



### ATTENTION

Incorrect cleaning can cause damage to the surface.

- ▶ A mild washing up detergent diluted in **hot water is ideal**. Wipe the surfaces with a **damp, non-scratch cloth**. After cleaning, **rub** the surfaces **dry** with a **soft cloth**.



*'Cleaning agents for stainless steel', page 41*



### User tip

- ▶ We recommend **Rieber cleaning agent for stainless steel** for cleaning stainless steel.

It is an especially thorough yet gentle cleaner, produces a dazzling shine, and cleans and protects in one.

Order no.: 72 10 24 08

### # Clean and service plastic parts

→ Applies to operating elements such as switches and control, compartment seals



### ATTENTION

Incorrect cleaning can cause damage to the surface.

- ▶ A **mild washing up detergent** diluted in **hot water** is ideal. Wipe the surfaces with a **damp, non-scratch cloth**. After cleaning, rub the surfaces dry with a **soft cloth**.

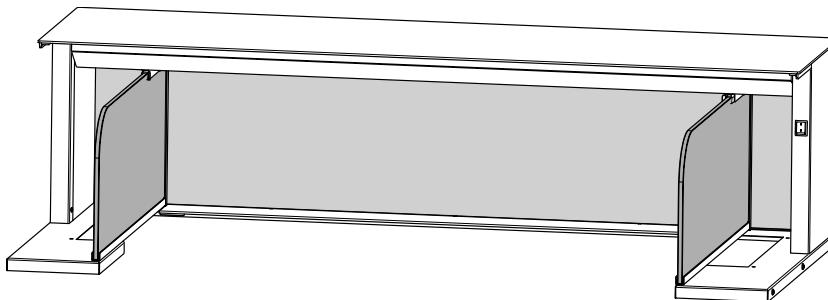
- ▶ Remove the sealing frames of the compartments for cleaning if necessary. Ensure that these are mounted correctly with the seal ends at the bottom.



- ▶ User tip. Clean the sealing frames in the dishwasher.

### # Clean safety glass splash guard

→ Applies to fixed splash guard on the appliance, detachable splash guard on left and right



### ATTENTION

Incorrect cleaning can cause damage to the surface.

- ▶ A **mild washing up detergent** diluted in **hot water** is ideal. Wipe the surfaces with a **damp, non-scratch cloth**. After cleaning, rub the surfaces dry with a **soft cloth**.
- ▶ Clean laminated safety glass parts like normal glass surfaces













## 8.4 Overview of maintenance measures and intervals



### User tip

Shorter intervals may be necessary for high volumes of greasy steam. The grease drip trays may need to be emptied sooner. The active carbon filters may need to be replaced sooner.

- ▶ Adapt the intervals according to the conditions of use to prevent additional cleaning requirements.
- ▶ We recommend emptying and cleaning the appliance daily after use.

Interval	Activity to be performed	Page
<b>After use, at least daily</b>	Clean generally. Choose the correct cleaning method.	 <a href="#">Page 42</a>
	Clean cooking area and splash guard	 <a href="#">Page 45</a>
	Clean grease drip trays, Clean high-performance grease separator,	 <a href="#">Page 49</a>
	Inspect filter mat, replace filter mat if necessary Order no. 91 70 05 15	
	Clean chilling compartment (optional)	 <a href="#">Page 59</a>
	Clean warming compartment (optional)	 <a href="#">Page 60</a>
	Clean neutral compartment (option)	 <a href="#">Page 60</a>
	Clean castors if necessary	 <a href="#">Page 60</a>
	<b>Every 7 working days or weekly</b>	Inspect technical compartments and clean as required
<b>Every 14 working days or every 2 weeks</b>	 <b>Risk of fire</b> Clean ventilation grille on the 'chilling compartment' (option)	 <a href="#">Page 59</a>
<b>After at least 500 hours of operation</b>	Completely replace Rieber active carbon filter	 <a href="#">Page 57</a>
<b>As required</b>	Replace CHECK sensor battery	 <a href="#">Page 58</a>
<b>Every 12 months</b>	Have electrical equipment inspected by a qualified electrician in accordance with DGUV regulation 3, Also have the residual current operated device inspected.	 <a href="#">Page 39</a>

Ensure preservation of the product identification

 Page 15


After at least 3000 hours of operation

Clean plasma generator

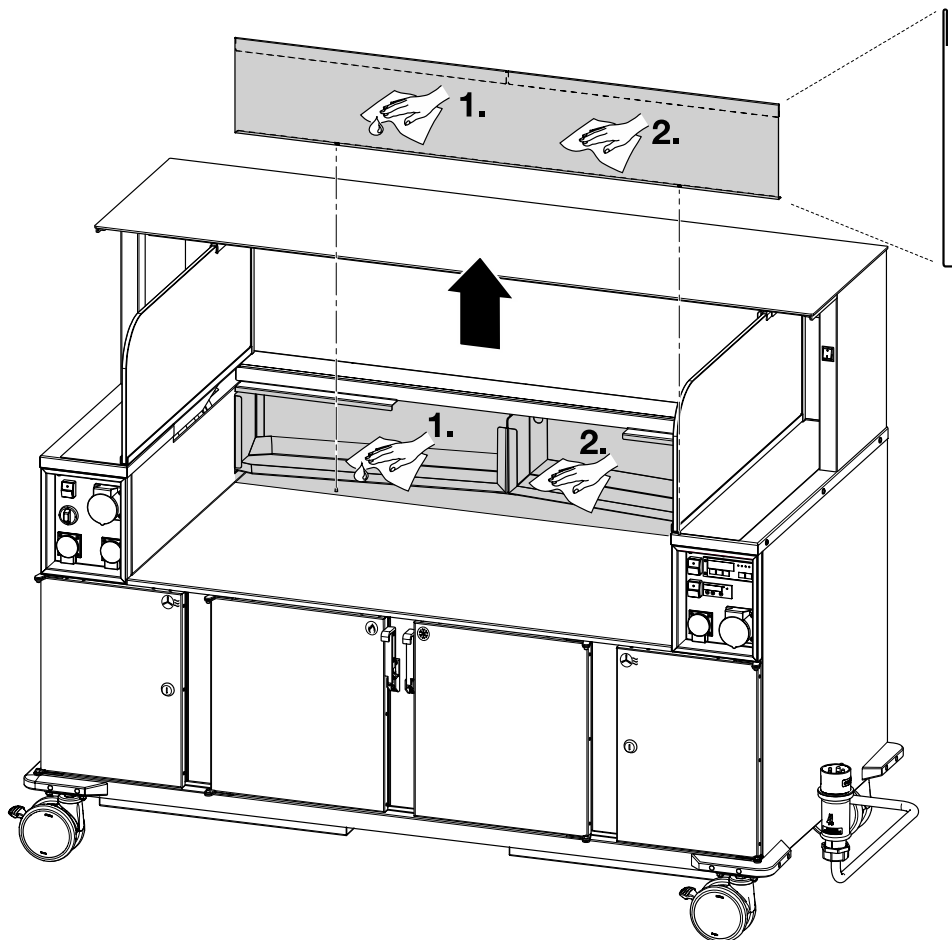
 Page 54

## 8.5 Clean cooking area and splash guard

### # Note on preparation

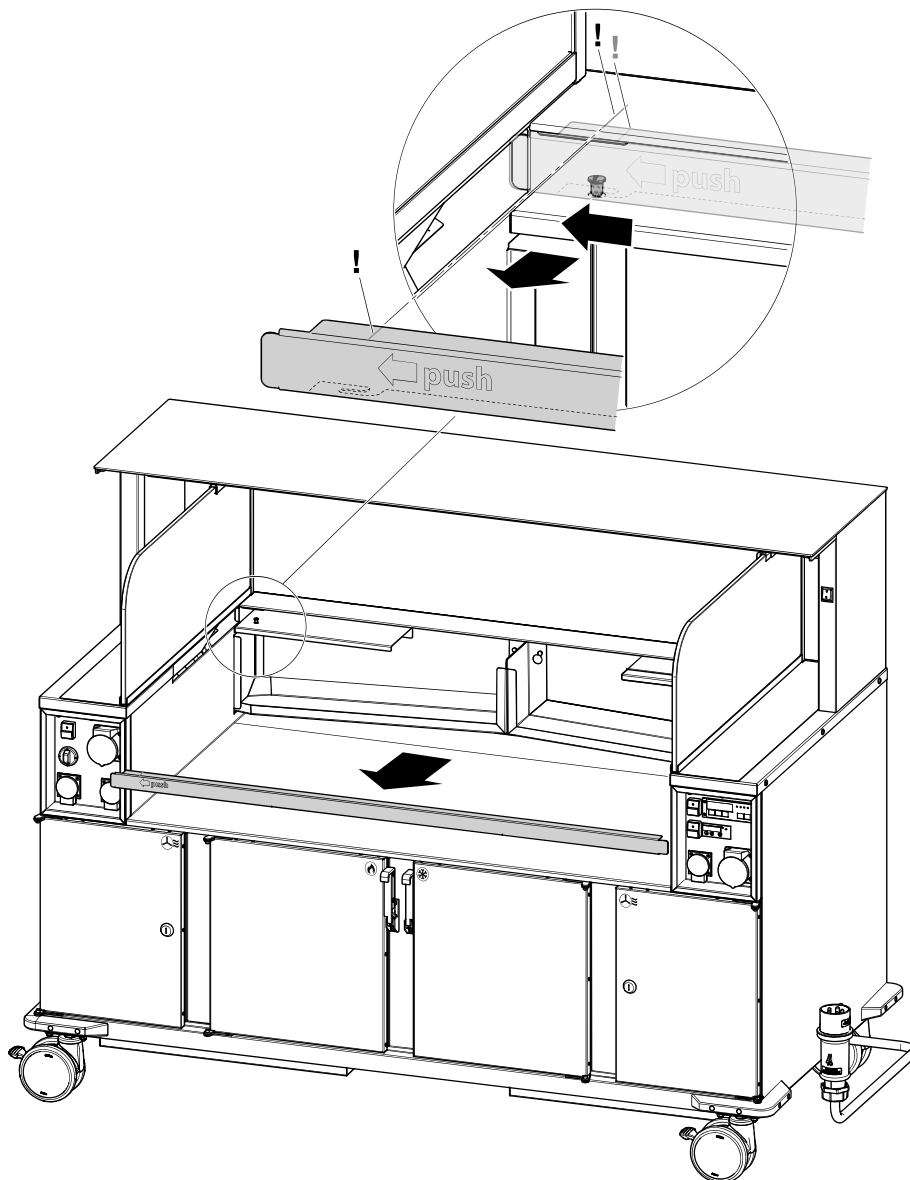
- Remove the cooking units and other equipment from the cooking area.
-  **User tip.** Place an adequately large, soft surface in the cooking area for placing the parts to be cleaned.

### 8.5.1 Clean air ducts



The cover of the air ducts is fixed with pins at the bottom left and clipped in at the top.

# Note on removable U-profile on the attachment



The yellow markings, arrow and 'push' lettering are engraved on the surface.

- **To remove the U-profile**, push it to the left in the direction of the arrow and remove it on the operator side.
- **To insert the U-profile**, position the profiles on top of each other and then push the U-profile to the right into the operating position.

**# Notes on removal and installation of the cover**

➤ **ATTENTION**

Incorrect handling can cause scratches.

➤ Grasp the cover with both hands, lift it vertically upwards out of the fixing and remove.

➤ When inserting the part after cleaning, ensure that it is fixed with the pins on both sides simultaneously.

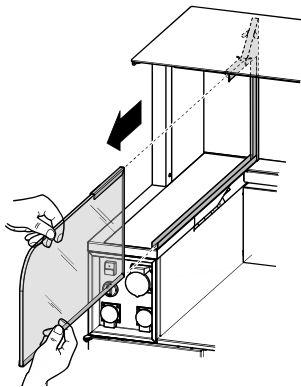
**# Note on cleaning**

➤ Clean the casing and air ducts with a **hot, mild** detergent diluted in water. After cleaning, rub surfaces dry with a **soft cloth**.

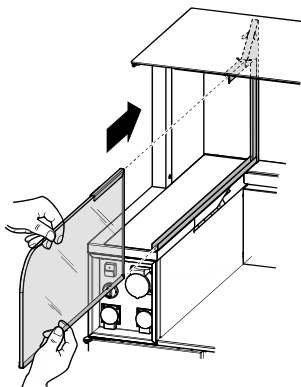
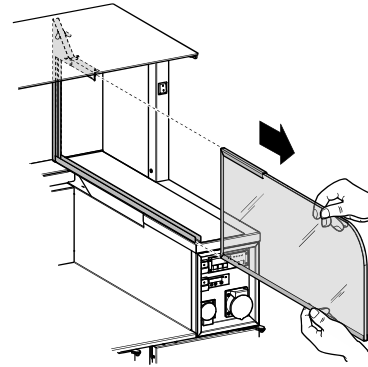
### 8.5.2 Clean cooking area

- Clean the appliance with a **hot, mild** detergent diluted in water. After cleaning, rub surfaces dry with a **soft cloth**.

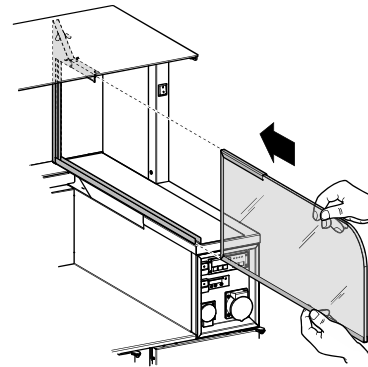
### 8.5.3 Remove and clean splash guard



- Remove the splash guard, holding it with both hands.



- When re-inserting, ensure correct mounting in the guides at the top and bottom. Simply push the splash guard into the guide as far as it will go.



- **ATTENTION**  
Clean laminated safety glass parts like normal glass surfaces.
- **ATTENTION**  
Ensure correct positioning and condition of the plastic profiles, replace if necessary; Order no. **37160605** /bulk goods

#### # NOTE

- Only re-install the splash guard after cleaning the side edge extraction units.



*Chapter 'Insert the parts again', page 52*

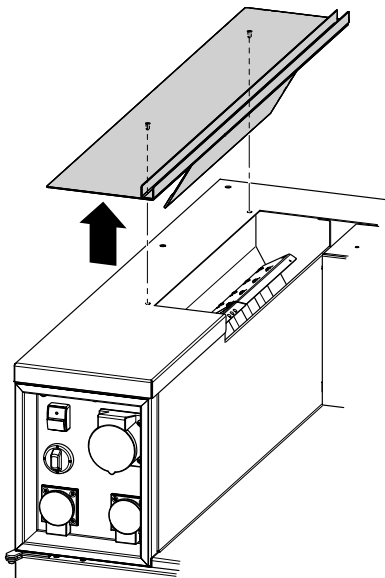


## 8.6 Clean high-performance grease separator, grease drip trays ...

➤ **⚠ Danger of electric shock. Risk of death**

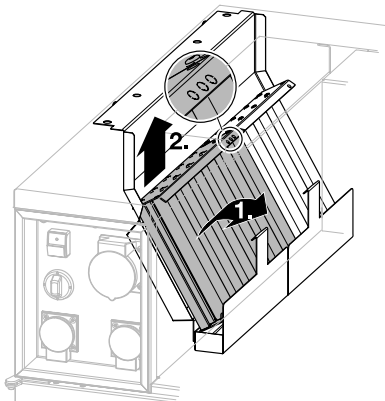
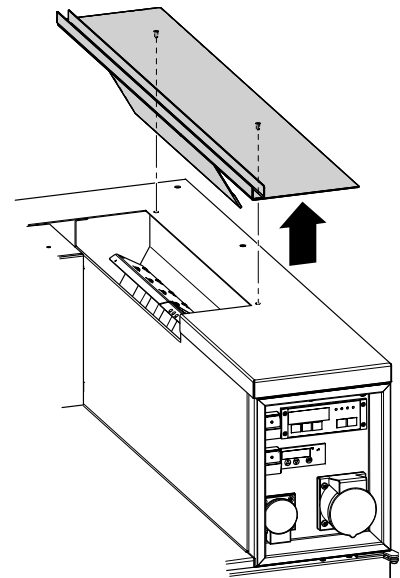
Disconnect the appliance from the power supply before carrying out repair, maintenance and cleaning work; Do this by unplugging the power plug.

### 8.6.1 Remove the parts



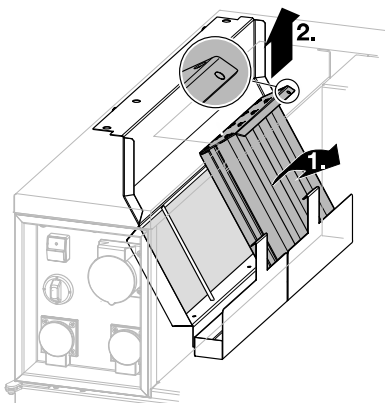
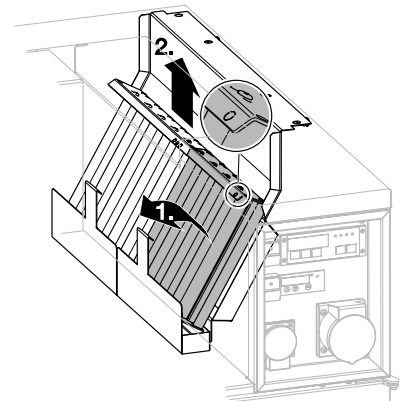
# Remove cover

- Grasp the part in the centre and pull it out vertically upwards.
- Remove the part.
- Place the part on the prepared surface.

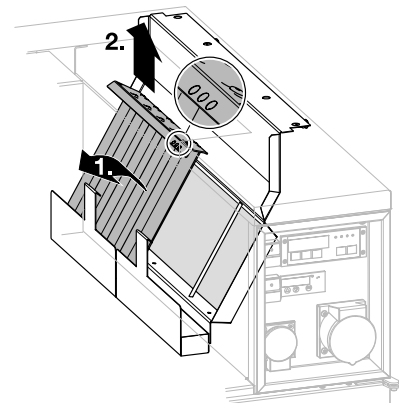


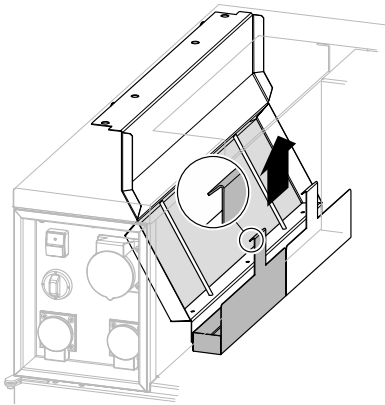
# Remove high-performance grease separator

- Grasp the front filter centrally at the handle strip, tilt the part and pull it out vertically upwards.



- Repeat with the rear filter.





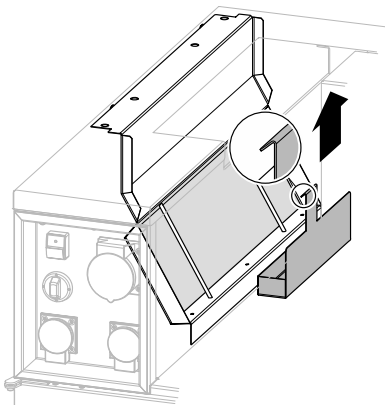
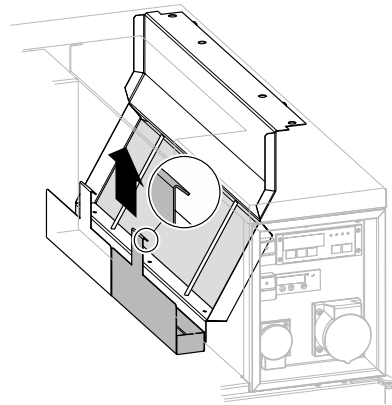
# Remove grease grip trays

➤ NOTE

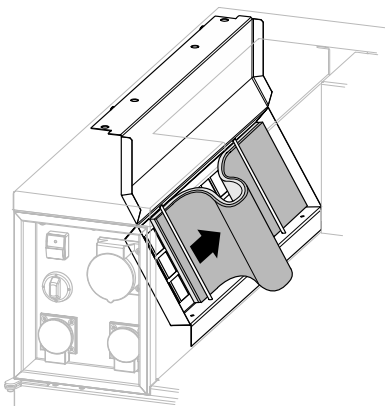
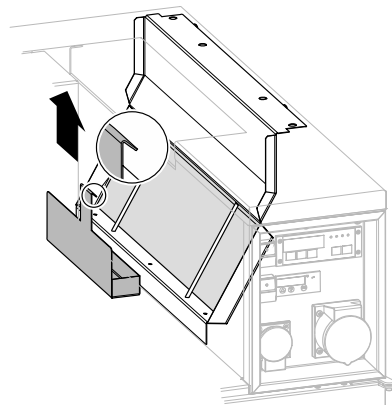
Do not spill the grease, as considerable additional cleaning work would then be required. Thorough cleaning of the technical compartment would be necessary.

 [Page 54](#)

➤ Grasp the front grease drip tray by the handle and pull it out vertically upwards.

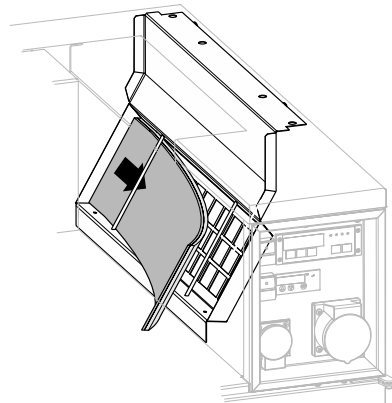
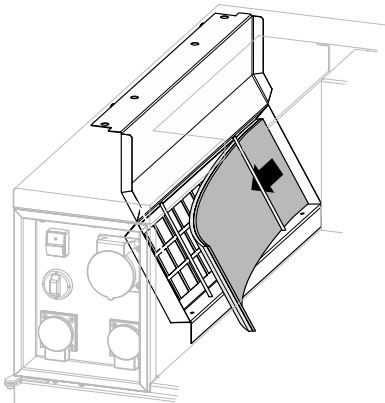
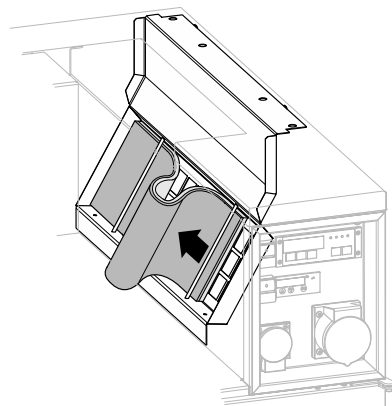


➤ Repeat with the rear grease drip tray. Slide forward around 10 cm first of all.



# Remove filter mat

➤ Grasp the filter mat centrally and pull it out.

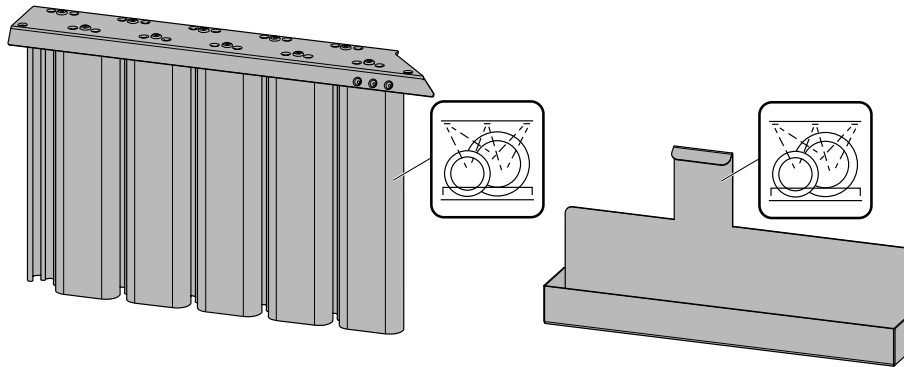


## 8.6.2 Clean the parts

### # Clean removed stainless steel parts

The parts are dishwasher-safe.

- Clean the high-performance grease separators and the grease drip trays with fat-soluble cleaning agents. Rinse thoroughly and then dry completely.



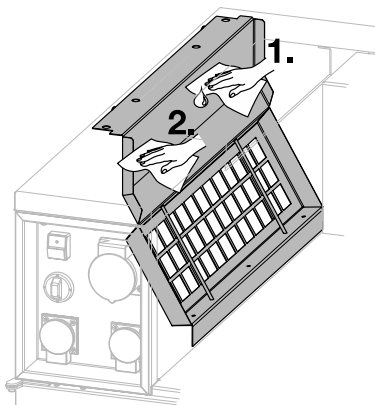
### # Inspect Filter mat, replace if necessary

Grease particles are mainly deposited on the blue side of the filter mat. If grease stains have formed and the filter mat feels greasy, you should replace it immediately.

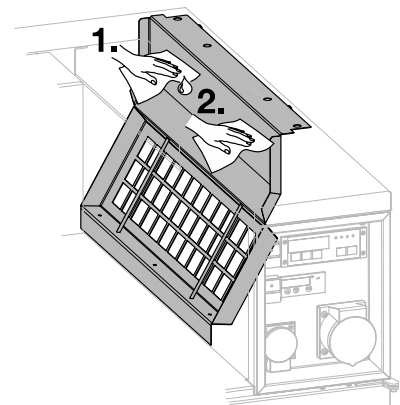
- Dispose of the used filter mat in the household waste.

Order no. 91 70 05 15

### # Clean inside of appliance

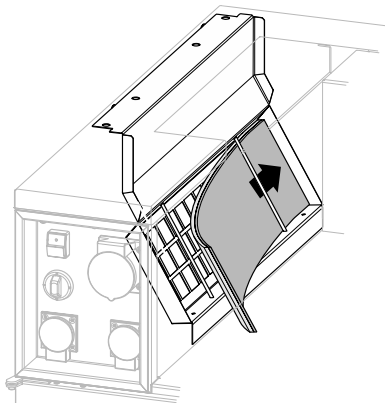


- Clean with a **hot, mild** detergent diluted in water, using a slightly damp cloth.
- After cleaning, rub surfaces dry with a **soft cloth**.



### 8.6.3 Insert the parts again

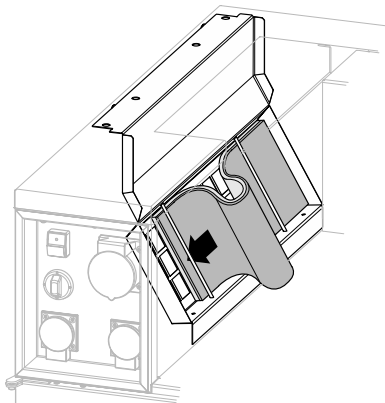
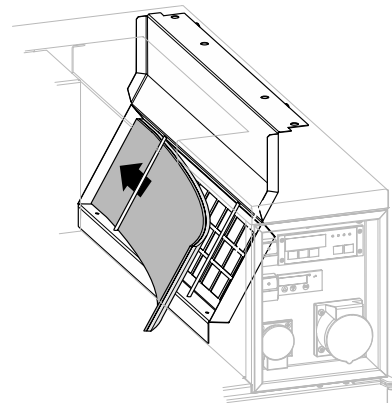
The parts are inserted in the reverse order to that described for removal.



#### # Feed in filter mat

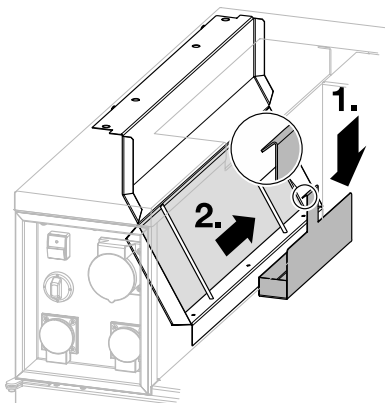
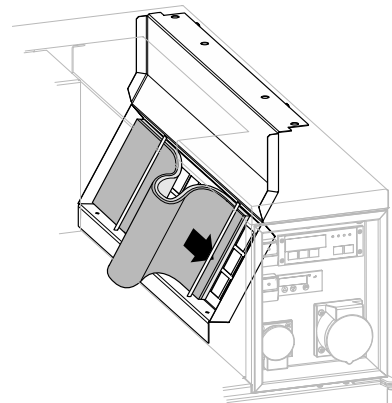
The visible side is blue.

- Feed the filter mat through the rear wire. Push it back as far as it will go.



- Make a loop and push the mat forward through the front wire as far as it will go.

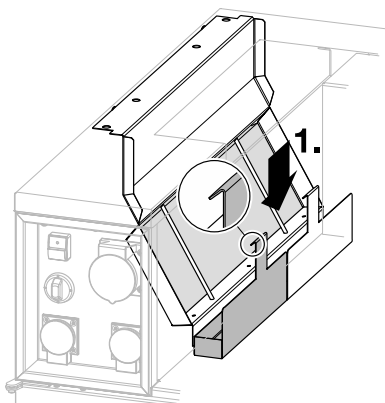
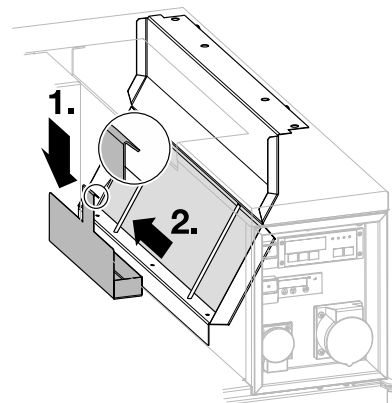
- Make sure that the filter mat is positioned smoothly.



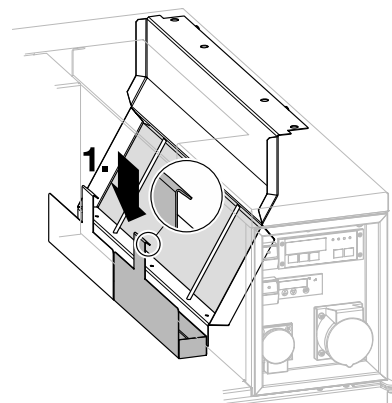
#### # Install grease drip trays

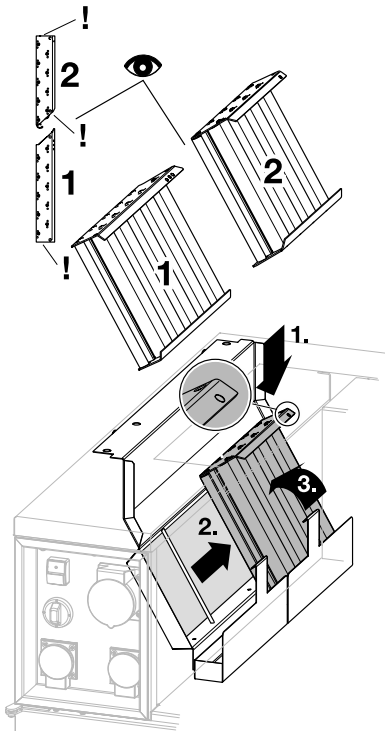
- Grasp the grease drip tray at the handle edge and push it down vertically as far as it will go.

- Then push it back as far as it will go.



- Insert the other grease drip tray at the front.

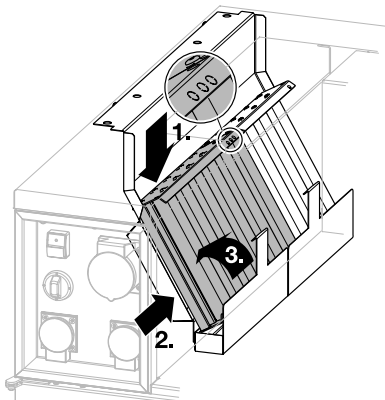
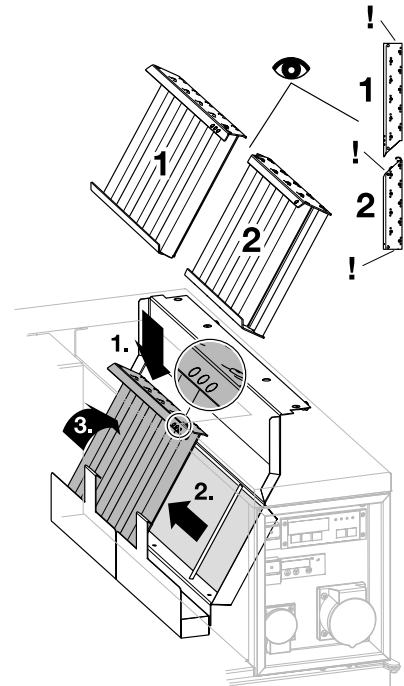




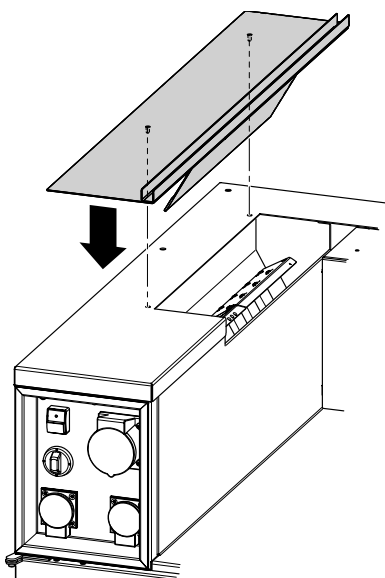
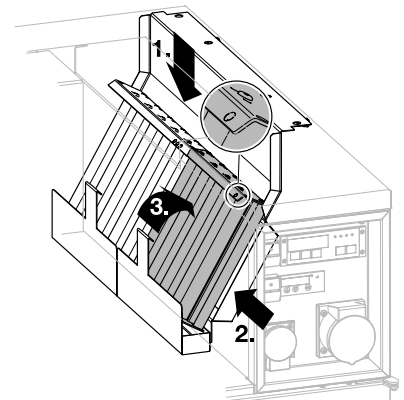
**# Install high-performance grease separators**

The high-performance grease separators are marked with **raised points**. These markings are also found on the housing in the cooking area.

- Align the grease separators for the left and right side with each other and position like this.
- Hold the rear grease separator at the handle edge and insert it. Push it back as far as it will go, swing it up and push it sideways as far as it will go.

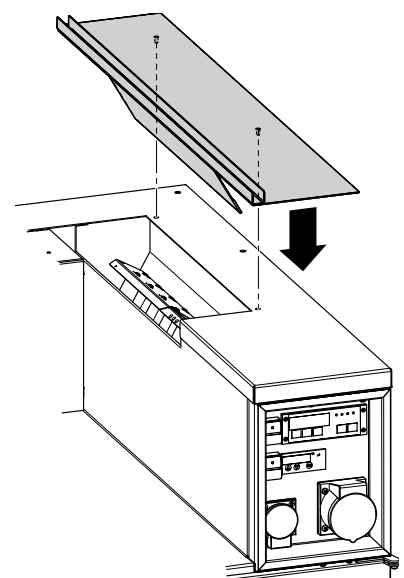


- Insert the front grease separator. Push it forward, swing it up and push it sideways as far as it will go.
- Make sure that the grease separators are positioned flush.



**# Install cover**

- **ATTENTION**  
Do not scratch the surface.
- Install the cover. Make sure it is firmly in place.



### # Re-install side splash guard

- Install the side splash guard, left and right.

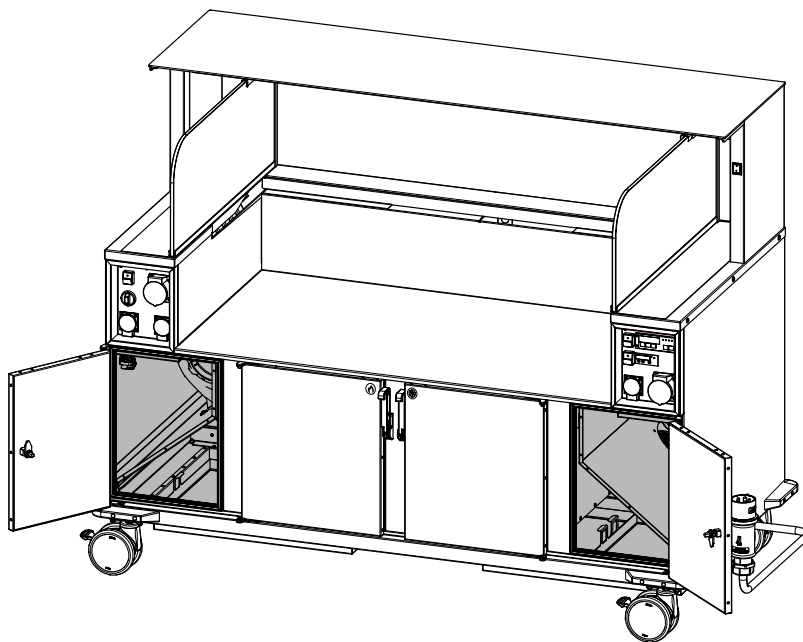


Chapter 'Remove and clean splash guard', page 48



## 8.7 Inspect technical compartments and clean as required. Clean plasma generator

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### 8.7.1 Safety instructions



### # Avoid risks

-  **Danger of electric shock. Risk of death**  
Before opening the technical compartments switch off the power to the appliance by unplugging the mains plug. As a matter of principle, keep the technical compartments closed.
-  **Risk of fire**  
**The active carbon filter cannot be cleaned.** Allow wet active carbon filter to dry in dry ambient air; not in the oven or dryer.

### # Information on opening and closing the technical compartments

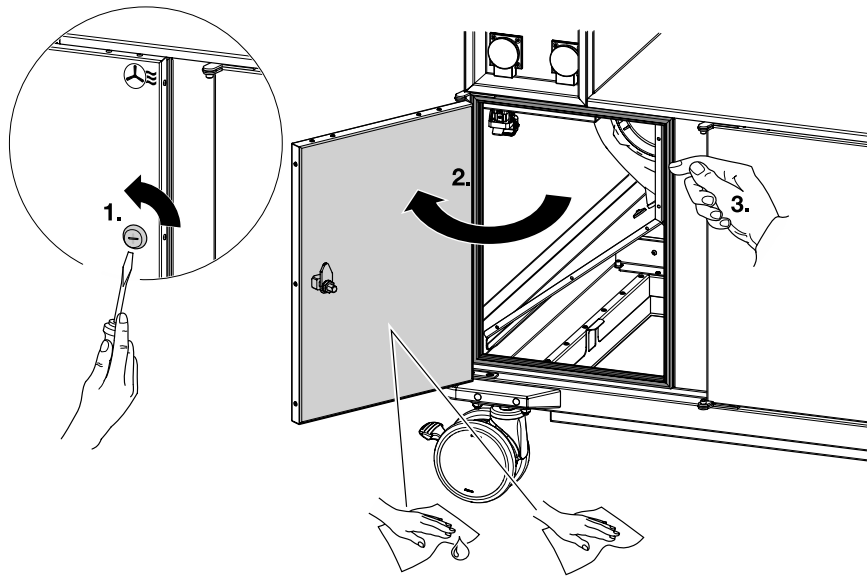
- Use a suitable tool to open and close the technical compartment.

### # Inspect technical compartments for soiling

The steam and vapour extracted by the radial fans, which contain grease in addition to water vapour, are also deposited on the surfaces.

- Inspect the condition, such as greasy surfaces. Do this by touching several points on the stainless steel surfaces with your finger and feeling it.

### 8.7.2 Information on cleaning, general



#### # At least 1x weekly: Inspect technical compartments and clean as required

- Clean the soiled stainless steel surfaces with a **hot cloth slightly dampened** with a **mild detergent solution**. After cleaning, rub surfaces dry with a **soft cloth**.
- The sealing frames of the doors can be removed for cleaning.

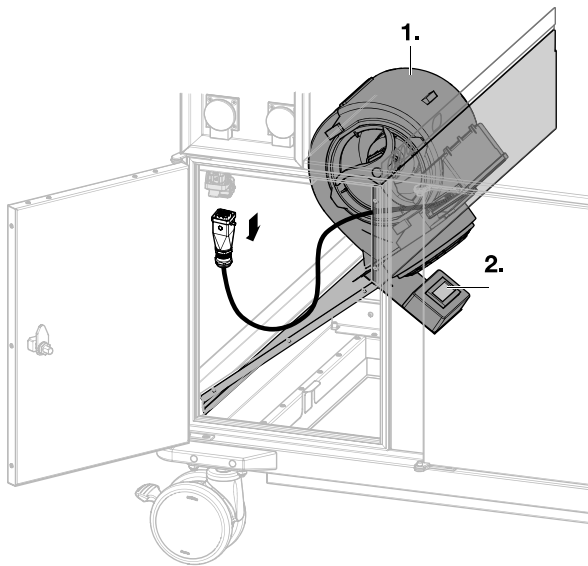
#### # Note on basic cleaning

The fan unit must be removed for this purpose.



[See page 56](#)

### 8.7.3 Note on cleaning the fan unit



Example: Left technical compartment

- 1 Radial fan
- 2 Diode of the plasma generator

- Unplug the mains plug of the radial fan/plasma generator assembly.
- Remove the assembly if necessary by sliding it along the guides, and place it on a soft surface.
- Eliminate any traces of grease. Then rub dry.
- **⚠ WARNING**  
Leave the active carbon filter dry, keep away from moisture.
- Clean the soiled **surfaces of the radial fan** with a **hot cloth slightly dampened** with a **mild** detergent diluted in water. After cleaning, rub surfaces dry with a **soft cloth**.
- Install again in the reverse order.

### 8.7.4 Note on cleaning the plasma generator

#### **At least every 3000 hours of operation: Clean plasma generator**

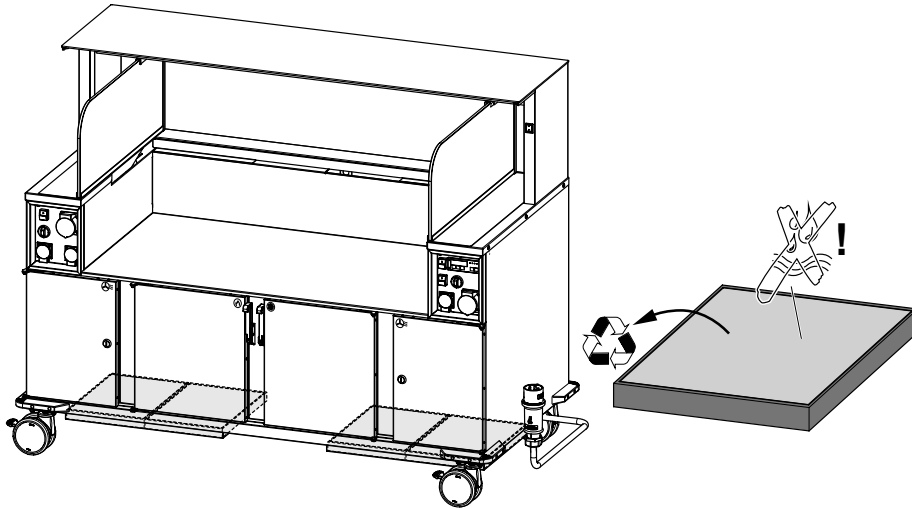
Failure to clean the **Diode** (2) on the plasma generator can cause unpleasant odours when using the appliance, due to malfunction. See previous image.

- Pull the fan unit forward.
- Clean the diode on the plasma generator; For this, use a scratch-free cloth. Use a little alcohol-based liquid if necessary, then rub dry.



## 8.8 Inspect/replace active carbon filter

### # Avoid risks



### WARNING

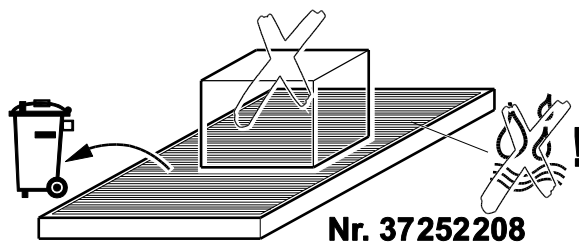


Health risks, respiratory disorders due to human error.

- ▶ Only use with original filter components, which are correctly mounted.
- ▶ Do not interfere with the extraction and circulating-air cleaning. Do not place any objects on the filter in the technical compartment, for example. Only operate with a dry filter.

### ▶ Risk of fire

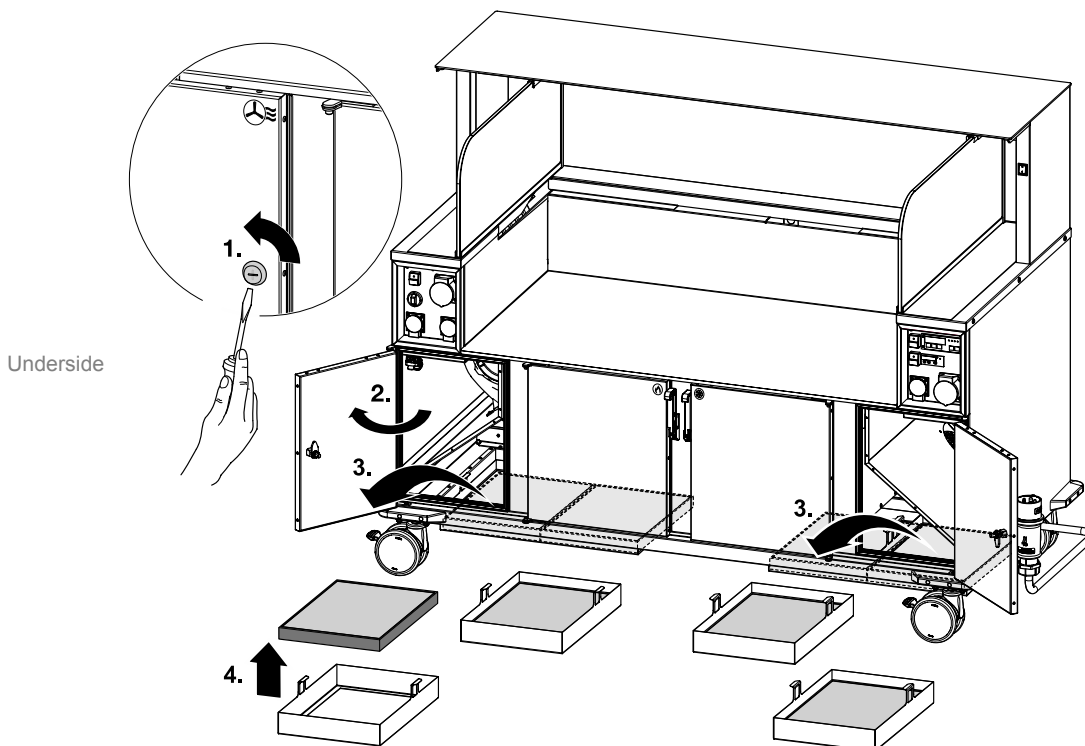
The active carbon filter cannot be cleaned. Allow wet active carbon filter to dry in dry ambient air; not in the oven or dryer.



### ▶ WARNING

Leave the active carbon filter dry, keep away from moisture.

# Notes on inspecting and replacing the active carbon filter



- Remove the filter frame by taking hold of it at the two grips.
- Remove the active carbon filter from the filter frame.

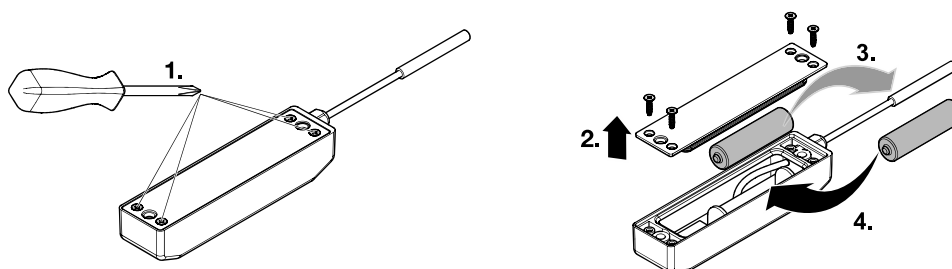


**Application tip**

The period of use of the active carbon filter depends on the type of vapour and the amount of grease. Criteria include odours without any clear cause, which may indicate that the filter is used up.

- We recommend completely replacing the active carbon filter **after at least 500 hours of operation**.
- Used active carbon filters must be disposed of with domestic waste.

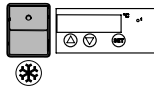
**8.9 Replace the CHECK sensor battery (optional)**



Temperature sensor in compartment door (optional)

1 x Mignon battery AA, 1.5 V Batteries may not be disposed of in general waste and may not end up in the environment.

## 8.10 Clean chilling compartment (option)



The chilling compartment can be switched ON/OFF separately.

The chilling compartment is marked with the same symbol.

- Switch the appliance to OFF using the ON / OFF rocker switch.

➤ **⚠ WARNING**

Risk of slipping and falling due to condensation running off when door is opened. Wipe up moisture immediately.

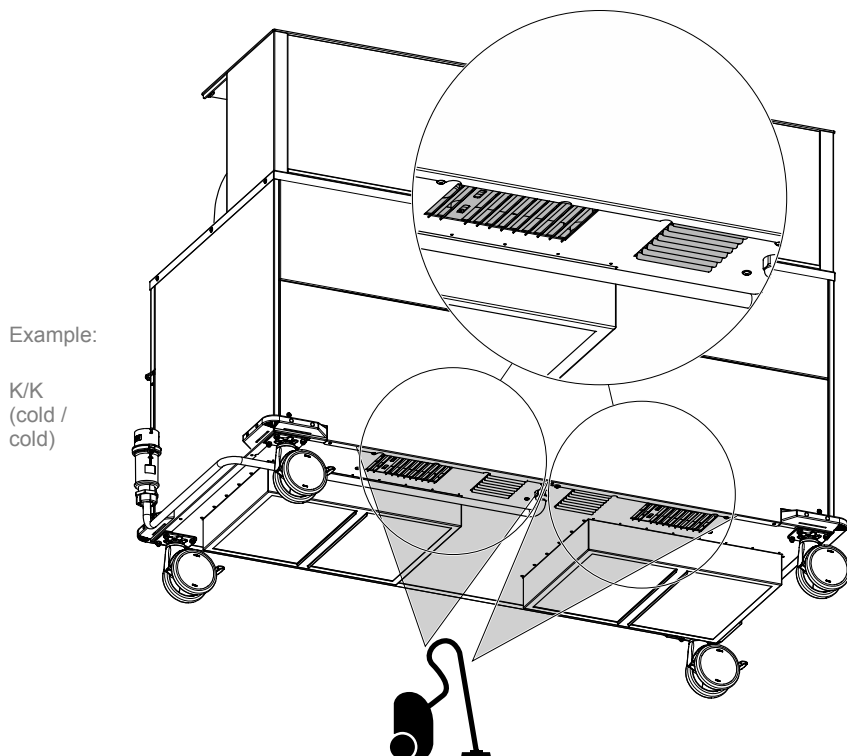
- Open the door and let the unit defrost.

- Clean the chilling compartment.



*'Choose the correct cleaning method', page 42*

## 8.11 Remove fluff from the ventilation slots on the chilling compartment (option)



**⚠ Risk of fire**

Fluff may ignite on hot parts in the chilling compartment.

- Make sure there is no fluff. Use a powerful vacuum cleaner to remove the fluff from the ventilation grille underneath the appliance.

## 8.12 Clean warming compartment (optional)

---



- Switch the appliance to OFF using the ON / OFF switch.
  - The green indicator light does not illuminate when the heating function is switched off.
- Turn the dial to the "O" neutral position.

Open the door and let the appliance cool down.

➤  **WARNING**

When working in the area of the warming compartment (optional) there is a risk of injuring one's hands and arms on hot surfaces up to 110 °C. Allow the hot appliance to cool down first of all. Wear personal protective equipment i.e. protective gloves.



*'Choose the correct cleaning method', page 42*

## 8.13 Clean neutral compartment (option)

---

The neutral compartment is easily recognised by the absence of marking on the door.



*'Choose the correct cleaning method', page 42*

## 8.14 Clean castors

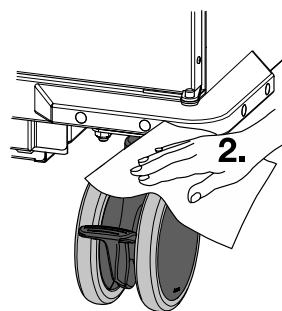
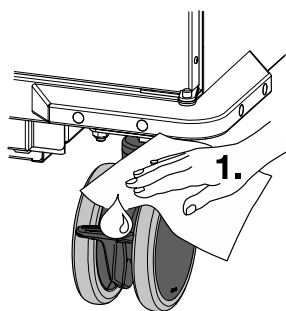
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### ATTENTION

Cleaning the castors incorrectly can damage them.

- ▶ Clean the castors with a cloth soaked in **mild detergent diluted in hot water**. After cleaning, **rub** the surfaces **dry** with a **soft cloth**.



## 8.15 Keep ready for next use in dry condition

---

- Dry the inside of the appliance and leave the door open until the residual moisture has dried off.
- Store appliance at room temperature.

## 9 Troubleshooting – What now?

### 9.1 Notes on troubleshooting








#### **WARNING**

Danger of electric shock. Dangerous electrical voltage.

- ▶ Switch off damaged electrical appliance immediately, pull connecting plug from the mains.
- ▶ Have all electrical repairs carried out by an authorised electrician only.
- ▶ Any interference in the 'plasma generator' is forbidden, as considerable health risks can arise.

Any repairs during warranty period may only be carried out by the Rieber service department. Please contact the manufacturer's service department at Rieber.

Fault	Possible cause	Possible remedy
Cooking units do not work	Connecting plug is not plugged in	<ul style="list-style-type: none"> <li>➤ Plug in the connecting plug.</li> <li># Operating staff</li> </ul>
	Power supply disrupted	<ul style="list-style-type: none"> <li>➤ <b>Malfunction</b> Completely disconnect the unit from the mains. Then switch back on.</li> <li># Operating staff</li> </ul>
'ON/OFF pushbutton with indicator light' does not illuminate	Device not connected correctly Power supply disrupted	<ul style="list-style-type: none"> <li>➤ Check electrical connection.</li> <li># Operating staff</li> </ul>
	Power supply disrupted (Circuit breakers are located on the left and right behind the switch panels)	<ul style="list-style-type: none"> <li>➤ <b>Electrical hazard</b> Completely disconnect the unit from the mains after a power failure.</li> <li>➤ Check status</li> <li>➤ Then switch back on.</li> <li># Qualified electrician</li> </ul>
Smoke and odours	Temperature of cooking units set too high	<ul style="list-style-type: none"> <li>➤ Set temperature to maximum 250 °C.</li> <li># Operating staff</li> </ul>
	High-performance grease separator, grease drip trays, filter mats	<ul style="list-style-type: none"> <li>➤ <b>Risk of fire</b> Check status</li> </ul> <p> <a href="#">Page 49</a></p> <ul style="list-style-type: none"> <li># Operating staff</li> </ul>

Fault	Possible cause	Possible remedy
	Extraction and circulating-air cleaning malfunction	<ul style="list-style-type: none"> <li>➤  <b>WARNING</b> Check status</li> <li> <a href="#">Page 49 et seqq.; 54 et seqq.</a></li> <li># Operating staff</li> </ul>
	Electrode on plasma generator soiled	<ul style="list-style-type: none"> <li>➤ Clean</li> <li> <a href="#">Page 54</a></li> <li># Operating staff</li> </ul>
Chilling compartment iced up	Inadequately pre-chilled food introduced	<ul style="list-style-type: none"> <li>➤ Defrost and clean compartment</li> <li># Operating staff</li> </ul>
	Sealing frame for housing to seal door is missing	<ul style="list-style-type: none"> <li>➤ Insert sealing frame</li> </ul>
	Loss of refrigerant	<ul style="list-style-type: none"> <li>➤  <b>WARNING</b> Check condition.</li> <li># Refrigeration expert</li> </ul>
Appliance very difficult to move	Castors locked with brake	<ul style="list-style-type: none"> <li>➤ Release lock</li> <li># Operating staff</li> </ul>

### Customer service, spare parts



#### IMPORTANT

Customer service needs information about the type and number of your appliance.

- If you have a fault you cannot remedy yourself, please get in touch with your Rieber partner or Rieber central customer services.

## 9.2 Disposing of your product

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Your appliance is made of high-quality material which can be reused / recycled. For disposal, disconnect the appliance from mains supply. Unplug the mains plug. Cut off the cable directly at the casing. Dispose of this appliance properly via your local disposal facility.



#### WARNING

Persons with limited sensory and mental ability might get locked in.

- ▶ When disposing of the unit, destroy the door lock.
-

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### 11 Warranty and liability

Manufacturer liability and warranty shall no longer apply if

- you do not follow the information and instructions in this user guide,
- do not use the device as it is intended,



*See chapter "Intended use"*

- make conversions or functional modifications,
- do not use original spare parts.

The "Sales and delivery terms and conditions" of Rieber GmbH & Co. KG shall apply for all warranty claims made against the manufacturer. For instance, any repairs and/or overhaul during the warranty period may only be performed by the manufacturer's service department of Rieber, failing which any claims hereof may be voided. Please contact the manufacturer's service department at Rieber.

The following wear parts are not included in the warranty:

- Castor, castor with parking brake, bumper corner.
- Filter mat
- Rieber active carbon filter

### 12 Excerpt from EC Declarations of Conformity

Rieber GmbH & Co. KG hereby declares that the product

- varithek® **acs 1600 O<sub>3</sub>**  
/Mobile units with integrated extraction and circulating-air cleaning for food delivery

complies with the basic requirements of the EC Machinery Directive 2006/42/EC, Appendix II A, harmonised standards (DIN EN ISO 12100:2011-03 Safety of Machinery — General principles for design — Risk assessment and risk minimisation) and with the basic requirements of the European Directive on Electromagnetic Compatibility 2014/30/EU.

If required, a copy of the EC Declaration of Conformity can be obtained from our sales team.

### 13 Manufacturer's address

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