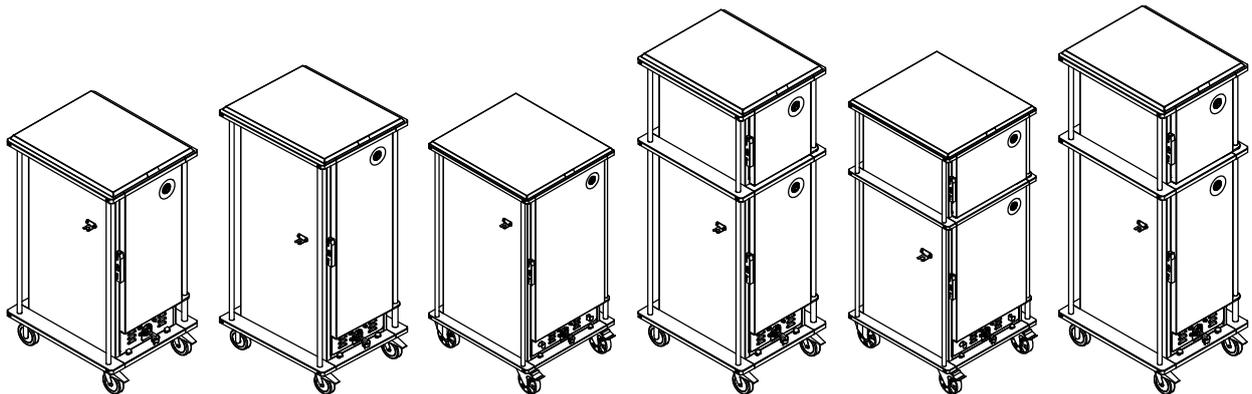


## Operating Instructions



**HUPFER® Köhler®** Banquet trolley heated |  
neutral

BKW1/14 L-GN | BKW1/20 L-GN | BKW1/36 B-GN | BKW1/14 L-  
GN+5PK | BKW1/28 B-GN+10PK | BKW1/23 L-GN

# 1 Introduction

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## 1.1 Appliance Information

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Appliance name	<b>HUPFER Köhler</b> Banquet trolley heated   neutral
Appliance type/s	BKW1/14 L-GN   BKW1/20 L-GN   BKW1/36 B-GN   BKW1/14 L-GN+5PK   BKW1/28 B-GN+10PK   BKW1/23 L-GN
Manufacturer	HUPFER® Metallwerke GmbH & Co. KG Dieselstraße 20 48653 Coesfeld Germany  Postfach 1463 48634 Coesfeld Germany  ☎ +49 2541 80 50 📠 +49 2541 805 111  <a href="http://www.hupfer.de">www.hupfer.de</a> <a href="mailto:info@hupfer.de">info@hupfer.de</a>

Read and understand these operating instructions to ensure safe operation and avoid any damage!  
Ensure that operating staff have been briefed regarding sources of danger and possible incorrect handling.

### Subject to modifications

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

**Manual edition**  
91101983\_A4

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### 1.3 List of Abbreviations

Abbreviation	Definition																																				
BGR	German Employers' Liability Insurance Association rule ( <i>Berufsgenossenschaftliche Regel</i> )																																				
BGV	German Employers' Liability Insurance Association regulations ( <i>Berufsgenossenschaftliche Vorschrift</i> )																																				
CE	Communauté Européene European Community																																				
DIN	German Institute for Standardisation, technical regulations and technical specifications																																				
E/V	Spare or wearing part ( <i>Ersatz- bzw. Verschleißteil</i> )																																				
EC	European Community European Community																																				
EN	European Standard ( <i>Europäische Norm</i> ) Harmonised standard for the EU market																																				
HACCP	Hazard Analysis and Critical Control Points Hazard analysis of critical control points																																				
IP	International Protection. The abbreviation IP and a further two-digit index specify the protection class of a housing. The first digit: Protection against ingress of solid foreign objects    The second digit: Protection against ingress of water																																				
	<table border="1"> <tbody> <tr> <td>0</td> <td>No protection against contact, no protection against ingress of solid foreign bodies</td> <td>0</td> <td>No protection against ingress of water</td> </tr> <tr> <td>1</td> <td>Protection against contact with any large surface of the body such as the hand, protection against ingress of foreign objects <math>\varnothing &gt; 1.97''</math> (50 mm)</td> <td>1</td> <td>Protection against dripping water (vertically falling drops)</td> </tr> <tr> <td>2</td> <td>Protection against contact with the fingers, protection against ingress of foreign objects <math>\varnothing &gt; 0.5''</math> (12 mm)</td> <td>2</td> <td>Protection against dripping water (at any angle up to 15° from the vertical)</td> </tr> <tr> <td>3</td> <td>Protection against contact with tools, wires or similar objects of <math>\varnothing &gt; 0.1''</math> (2.5 mm), protection against foreign objects <math>\varnothing &gt; 0.1''</math> (2.5 mm)</td> <td>3</td> <td>Protection against water drips at any angle up to 60° from the vertical</td> </tr> <tr> <td>4</td> <td>Protection against contact with tools, wires or similar objects of <math>\varnothing &gt; 0.04''</math> (1 mm), protection against foreign objects <math>\varnothing &gt; 0.04''</math> (1 mm)</td> <td>4</td> <td>Protection against water splashing from any direction</td> </tr> <tr> <td>5</td> <td>Protection against contact, protection against dust deposits inside</td> <td>5</td> <td>Protection against water jets (projected by a nozzle) at any angle</td> </tr> <tr> <td>6</td> <td>Complete protection against contact, protection against ingress of dust</td> <td>6</td> <td>Protection against rough sea or strong water jets (flood protection)</td> </tr> <tr> <td></td> <td></td> <td>7</td> <td>Protection against ingress of water during temporary immersion</td> </tr> <tr> <td></td> <td></td> <td>8</td> <td>Protection against pressurised water during continuous immersion</td> </tr> </tbody> </table>	0	No protection against contact, no protection against ingress of solid foreign bodies	0	No protection against ingress of water	1	Protection against contact with any large surface of the body such as the hand, protection against ingress of foreign objects $\varnothing > 1.97''$ (50 mm)	1	Protection against dripping water (vertically falling drops)	2	Protection against contact with the fingers, protection against ingress of foreign objects $\varnothing > 0.5''$ (12 mm)	2	Protection against dripping water (at any angle up to 15° from the vertical)	3	Protection against contact with tools, wires or similar objects of $\varnothing > 0.1''$ (2.5 mm), protection against foreign objects $\varnothing > 0.1''$ (2.5 mm)	3	Protection against water drips at any angle up to 60° from the vertical	4	Protection against contact with tools, wires or similar objects of $\varnothing > 0.04''$ (1 mm), protection against foreign objects $\varnothing > 0.04''$ (1 mm)	4	Protection against water splashing from any direction	5	Protection against contact, protection against dust deposits inside	5	Protection against water jets (projected by a nozzle) at any angle	6	Complete protection against contact, protection against ingress of dust	6	Protection against rough sea or strong water jets (flood protection)			7	Protection against ingress of water during temporary immersion			8	Protection against pressurised water during continuous immersion
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LED	Light Emitting Diode Light diode																																				
LMHV	Regulation on the hygiene of foodstuffs																																				
RCD	Residual Current Device Residual current device (RCD)																																				
STB	Safety temperature limiter																																				

## 1.4 Definitions of Terms

Term	Definition
Authorised specialist	An authorised specialist is a specialist that has been trained by the manufacturer, an authorised service dealer or a company assigned by the manufacturer.
Check, inspect	Compare with certain conditions and/or characteristics such as damage, leaks, filling levels and heat.
Cleaning system-resistant	<p>The suitability of the appliance for cleaning in an automated cleaning system is limited. It is possible to achieve a flawless, reproducible cleaning and drying result, but it cannot be guaranteed.</p> <p>The exterior and interior housing are produced to standard specifications. Water ingressing hollow spaces resulting from the design of the appliance can run off without hindrance. Water collection in hollow spaces is avoided. Installed electrical components and electrical wiring are protected by appropriate sealing (for example, labyrinth edges, sealing profiles, cable channels) against any form of penetration by water. Protection class IPX6 (powerful pressurised water) to DIN EN 60529 (VDE 0470) is guaranteed. It is possible that water remains and is carried over following the drying process.</p>
Convection	Physical properties or mass transfer (e.g. heat or cold) through currents in gases and liquids.
Cook&Chill Kitchens	"Cook and Chill": Kitchens where warm food is chilled as quickly as possible after being cooked.
Cook&Serve Kitchens	"Cook and Serve": Kitchens where warm food is served immediately after being cooked or kept warm until it is consumed.
Corrosion	The chemical reaction of a metallic material with its surroundings, e.g. rust.
Cover	A bell-shaped cover for keeping food warm on plates and dishes.
Element formation	Also: contact corrosion. Occurs when different noble metals are in close contact with each other. This happens when a corrosive medium is between both metals, such as water or even normal air moisture.
EM field	Electrical, magnetic or electromagnetic field that is defined by its field intensity and phase formation.
EN tray	A European standard tray is a tray in a standard size. EN 1/1 corresponds to 20.9x14.6" (530x370 mm), EN 1/2 corresponds to 14.6x10.4" (370x265 mm).
Gastronorm	Gastronorm is a measurement system used worldwide in places such as food processing plants or large-scale kitchens. The use of standardised sizes makes it possible to exchange food pans. The basic size of the Gastronorm (GN) 1/1 is 20.9 x 12.8" (530 x 325 mm). Items are available in different depths.
GN tray	A Gastronorm standard tray is a standard-size tray. GN 1/1 corresponds to 20.9x12.8" (530x325 mm), GN 1/2 corresponds to 12.8x10.4" (325x265 mm).
H1	Hygienic standard (NSF/USDA) for lubricants that are suitable for incidental and technically unavoidable contact with foodstuffs.
HACCP	The HACCP concept is a preventive system that should ensure the safety of foods and consumers.
Instructed person	An instructed person is a person who has been instructed on the possible risks resulting from improper behaviour when carrying out an assigned task and regarding the necessary protective equipment and protective measures, and who has been trained for this task, if necessary.
Lift	A movement, for example a vertical movement of the guide basket from bottom to top.
LMHV	German Regulations on the Hygiene of Foodstuffs Regulations regarding hygiene requirements for producing, handling and placing food on the market
Machine safety	The term machine safety refers to all the measures used to avert injury to persons. The basis for machine safety is directives and laws for protecting users of technical devices and systems valid nationally and across the EC.
Passive layer	A non-metallic protective layer on a metallic material that prevents or slows down material corrosion.

Term	Definition
Porcelain-Standard	Porcelain-Standard is a measurement system for porcelain plates drafted by HUPFER®. The basic size of Porcelain-Standard (PN) 1/1 is 8.7x6.3" (220x160mm) (1/2 PN conforms to 4.3x6.3" (110x160mm), 1/4 PN conforms to 6.3x3.1" (160x80 mm)). The fitting lids have the following dimensions: 1/1 PN 9x6.6" (228x168mm), 1/2 PN 4.4x6.3" (111x161mm), 1/4 PN 4.4x3.2" (111x81mm).
Protection class	<p><b>0</b> -</p> <p><b>I</b> </p> <p><b>II</b> </p> <p><b>III</b> </p>
Qualified person, qualified personnel	Qualified personnel are persons who due to their professional training, experience, instruction and their knowledge of relevant standards, guidelines, accident prevention regulations and operating conditions have been authorised by a person responsible for system safety to carry out required activities and can recognise and prevent any potential hazards (definition of specialists according to IEC 364).
Schuko®	The abbreviation of the German term "Protective contact" indicates a system of domestic plugs and sockets equipped with protective earthed contacts used in most of Europe.
Specialist	A specialist is a person who can assess work assigned and can recognise possible hazards themselves based on their professional training, skills, experience and knowledge of the respective guidelines.
Suitable for washing devices	The appliance is suitable for cleaning in an automated cleaning system without restrictions. Following agreement with the manufacturer the cleaning system must achieve a hygienic, constant cleaning and drying result, which is to be approved by a third party (client).  The exterior and interior housing are manufactured to a standard guaranteeing hermetic sealing. It is not possible for water jets to ingress into hollow spaces in the appliance. Installed electrical components and electrical wiring are protected by appropriate sealing against any form of penetration by water. Protection class IPX6 (powerful pressurised water) to DIN EN 60529 (VDE 0470) is guaranteed. No water remains or is carried over following the drying process.
Verify, test	Compare with certain values such as weight, torque, content or temperature.
VESKA standard	Trays as per the VESKA standard are items used for distributing food in hospitals, principally in Switzerland; they measure 20.87 x 14.76" (530x375 mm).

## 1.5 Orientation of the Appliance

### The front

The front refers to the side where the door and controls are arranged and at which the staff loads the appliance.

### The rear

The rear refers to the opposite side to the front.

### The right

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

### The left

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

## 1.6 Notes on Using the Manual

### 1.6.1 Notes on the Manual Structure

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

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

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

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

## 2 Safety Instructions

### 2.1 Introduction

The section on safety instructions describes the risks associated with the appliance in terms of product liability (according to the EU Low-Voltage Directive 2006/95/EC).

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

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

In addition to these operating instructions, comply with the Health and Safety rules of the German Federation of the Statutory Accident Insurance Institutions for the Industrial Sector, especially with those that concern the handling of hot items and risks involved (BGR 110 "Protection of health and safety at work in restaurants" and BGR 111 "Protection of health and safety at work in large-scale kitchens").

### 2.2 Warning Symbols Used

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

The following symbols may be used:

	General hazard area
	Hazardous electrical voltage
	Risk of hand injuries
	Risk of crushing
	Hazard caused by hot surfaces
	Spraying with water forbidden
	Wear hand protection

## 2.3 Safety Instructions for Appliance Safety

---

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

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

- The appliance may only be operated as intended, when it is in perfect condition with regards to technical standards, with awareness of safety and hazards and in accordance with the operating instructions.
- All operating and actuating elements must be in a perfect and fail-safe condition with regards to technical standards.
- Before putting the appliance into operation, the appliance must be checked for external visible damage and defects. In case of damage, inform immediately the competent bodies and switch off the banquet trolley.
- Modifications or retrofits to the equipment are only permitted after consultation with the manufacturer and upon receipt of their consent in writing.
- The appliance is designed for transport by hand only. It is not permitted to use a machine of any type to move the appliance. Risk of injury and damage.
- Release both total brakes before moving the appliance. Moving the appliance when the total brakes are engaged can damage the chassis.
- The appliance should only be transported over level floors. Moving the appliance over very uneven floors and stair steps can damage the chassis.
- Do not stop the banquet trolley by applying the total brakes. The total brakes are designed to be able to prevent the appliance from unintended moving. Do not park the appliance on sloping floors. Secure the appliance against rolling away by applying both total brakes when stopping it.
- When approaching walls and moving round obstacles, always be aware for persons in your path. Risk of injury.
- When transporting the appliance, always hold push bars with both hands. Never let go the appliance while moving it.
- Move no faster than at walking pace when transporting the appliance. Heavily laden banquet trolleys are difficult to brake and steer. If necessary, ask for assistance when transporting the appliance.
- Never try to catch the banquet trolley with your hands if it tips over due to carelessness or external circumstances. Risk of injury.
- The appliances should be safely secured when transported off site inside a vehicle such as a truck. The total brakes are not suitable for securing the appliances when they are transported in a vehicle.

### 2.3.1 Additional Safety Instructions for Heated Appliances

- Before plugging in or unplugging the mains plug, the appliance must be switched off. When loaded, the mains plug must only be pulled out in an emergency.
- Before transporting, switch off the appliance using the on/off rotary switch with thermostat, pull out the mains plug and insert it into the holder provided.
- For models BKW1/36 and BKW1/28, the following additional instructions apply: Due to the width of the design, the connecting lead must not be hooked on the side but rather reeled up on the holders at the thermal module.
- Never use the connecting lead to pull the mains plug out of the socket.
- Never move the appliance by pulling on the connecting lead.
- If the mains plug has come into contact with water, it must be dried before it is inserted into the socket. Danger to life.
- Damaged mains plugs or connecting leads are to be replaced by authorised personnel before the appliance is used again.

- Do not use extension leads in wet and damp areas.
- Crockery may exceed the maximum permitted temperature of 149°F (65°C) for touchable appliance surfaces. Always wear protective gloves when dispensing. Risk of burning.
- Plastic crockery, top and bottom parts of plastic insulated sets and plastic-coated items for keeping food warm should not be stored or warmed up in heated banquet trolleys. Due to high temperatures in the interior of the appliance, the plastics can melt and catch fire.

## 2.4 Safety Instructions for Transport

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The following points are to be observed when transporting the banquet trolley:

- When loading, use only hoists and load lifting devices approved for the weight of the parts to be lifted.
- Use transport vehicles that are approved for the weight of the banquet trolley.
- Do not put a defective appliance into operation under any circumstances and inform the supplier immediately in such a case.

## 2.5 Safety Instructions for Cleaning and Care

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

- Take the banquet trolley out of operation, switch it off using the on/off rotary switch with thermostat, pull out the mains plug and secure against unauthorised reactivation before performing cleaning and care measures.
- Cleaning instructions must be strictly observed for reasons of hygiene.
- Heated appliances must be out of operation and sufficiently cooled down before cleaning.
- The appliance should not be cleaned with running water, or steam-jet or high-pressure cleaners. The appliance must be taken out of operation and switched off at the mains beforehand in any area where high-pressure steam or pressure washers are to be used. Do not spray the appliance and especially the electrical housings with water or cleaning agents while cleaning.

## 2.6 Safety Instructions Regarding Fault Repair

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

- The local Accident Prevention Regulations in force must be observed.
- Take the banquet trolley out of operation, switch it off using the on/off rotary switch with thermostat, pull out the mains plug and secure against unauthorised reactivation before performing maintaining or troubleshooting operations. The appliance must be switched off at the mains and secured against reactivation when working on the electrical system. Work on the electrical system may only be performed by trained electricians.
- Observe the valid product safety regulations for the product when handling oils, greases and other chemical substances.
- Wear suitable protective clothing when carrying out any maintenance and repair work.
- Carry out all the checks and inspections of the appliance on a regular basis. Remedy immediately deficiencies, such as loose screw connections, melted or damaged leads.
- Only authorised specialists may repair any faults or malfunctions.
- Defective components should be replaced with original parts only.

## 2.7 Notes on Specific Hazards

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### Electric power

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

## 3 Description and Technical Data

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### 3.1 Performance Description

---

Banquet trolleys are intended for hygienic transportation of food in the food service industry and large-scale catering establishments. Their main function is the transport over short distances and the keeping warm of food. They hold up prepared meals in Gastronorm containers or already portioned and covered meals on grids.

The unheated banquet trolley BKW1/23 L-GN is designed for transport of Gastronorm containers, Gastronorm grids and prepared Gastronorm trays with warm or cold meals for short distances.

Heated banquet trolleys are designed to keep food warm and to transport hot food in Gastronorm containers or portioned meals on Gastronorm grids.

The models BKW1/14 L-GN+5PK and BKW1/28 B-GN+10PK include an additional insulated compartment that can be used together with a cold storage plate as a cooling compartment. Therefore, either warm or chilled meals can be transported at the same time.

### 3.2 Intended Use

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Banquet trolleys are only intended to hold up Gastronorm containers with prepared food or already portioned meals on grids. They transport prepared food already portioned on crockery items ready for serving in the food service industry and large-scale catering establishments.

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

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

### 3.3 Improper Use

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Any other use, especially loading the banquet trolley with the other loads than those specified, is not permitted.

It is not permitted to cook food.

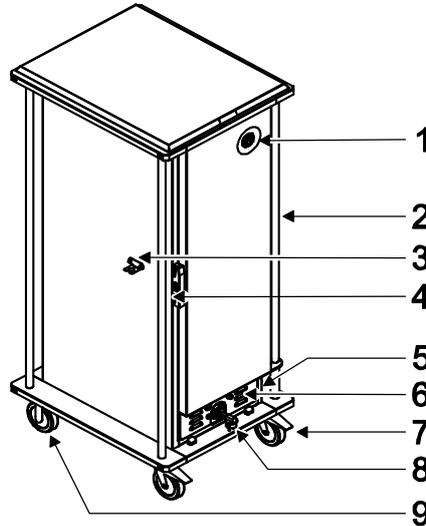
Transport of living beings, heavy and sharp-edged items, loose crockery items or stacks of crockery items is not permitted.

Banquet trolleys are not intended to be used as a seating surface or as a storing surface for items. In no case may people sit down or stand on or inside the appliance.

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

### 3.4 Appliance Description

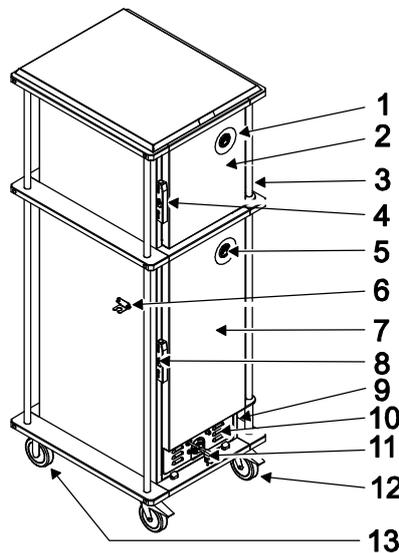
#### 3.4.1 BKW1/14 L-GN | BKW1/20 L-GN | BKW 1/36 B-GN



**Figure 1** View of the heated banquet trolley

- |   |  |   |                                |
|---|--|---|--------------------------------|
| 1 | Temperature display                        | 6 | Heating panel                  |
| 2 | Push bar                                   | 7 | Swivel caster with total brake |
| 3 | Holder for mains plug                      | 8 | Mains plug                     |
| 4 | Door opener                                | 9 | Fixed caster                   |
| 5 | Holder for mains plug (only BKW 1/36 B-GN) |   |                                |

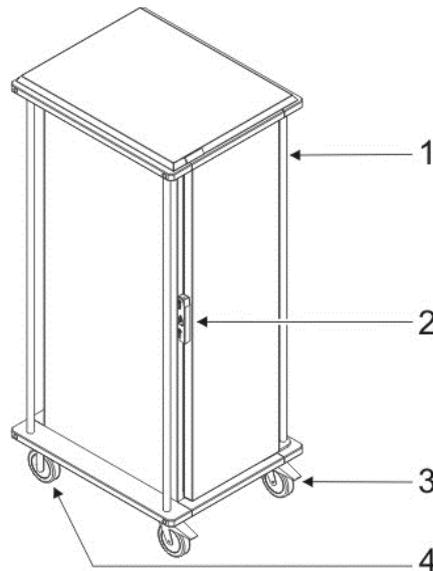
#### 3.4.2 BKW1/14 L-GN+5P | BKW1/28 B-GN+10PK



**Figure 2** View of the heated banquet trolley with neutral compartment

- |   |                       |    |   |
|---|-----------------------|----|---|
| 1 | Temperature display   | 8  | Door opener                                     |
| 2 | Insulated compartment | 9  | Holder for mains plug (only BKW 1/28 B-GN+10PK) |
| 3 | Push bar              | 10 | Heating panel                                   |
| 4 | Door opener           | 11 | Mains plug                                      |
| 5 | Temperature display   | 12 | Swivel caster with total brake                  |
| 6 | Holder for mains plug | 13 | Fixed caster                                    |
| 7 | Heated compartment    |    |   |

### 3.4.3 BKW1/23 L-GN



**Figure 3** View of the neutral banquet trolley

- |   |             |   |                                |
|---|-------------|---|--------------------------------|
| 1 | Push bar    | 3 | Swivel caster with total brake |
| 2 | Door opener | 4 | Fixed caster                   |

### 3.4.4 Appliance Description

The banquet trolley is made of stainless steel and its surface is polished.

The appliance is equipped with a door on the front side. The removable support ledge frames are fitted on the sides in the interior of the appliance to put the Gastronorm containers and/or grids.

The banquet trolley is equipped with two fixed and two lockable swivel casters with total brakes. The banquet trolley is suitable for transport over carpets owing to a particular size of casters fitted with special tyres.

The double-walled folding door is a thermal and sound insulation that are swivelling to an angle of 270° and locked.

Two circumferential protective strips protect the appliance against damage while moving and transporting it. The push bars of all the banquet trolleys (except BKW1/36 B-GN and BKW1/28 B-GN+10PK) move backwards with respect to the outer contour. This protects fingers sufficiently when holding the handles between impact protection and push bars in such a way that there is no risk of injury when hitting, for instance, rough walls.

The neutral banquet trolley BKW1/23 L-GN does not have a heating device.

Heated banquet trolleys (BKW1/14 L-GN, BKW1/20 L-GN and BKW1/36 B-GN) are equipped with a thermal module with a circulating air blower and a water tank. This generates a uniform circulating stream of moist hot air in the interior of the trolley that prevents food from drying out. Water in the water tank 25 oz (700 ml) is sufficient for approx. 3.5 operating hours.

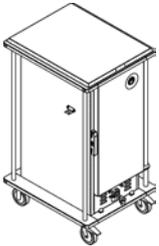
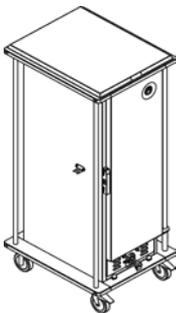
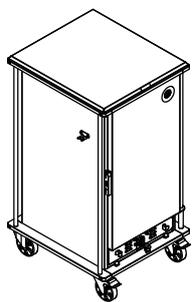
The operating temperature is to be set continuously by means of a rotary thermostat between 86°F (30°C) and 203°F (95°C). The temperature will be displayed on the display arranged on the door of the banquet trolley. The circulating air blower runs independently of the heating during the complete operation.

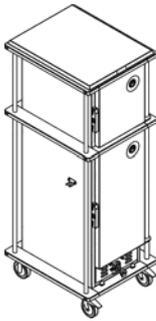
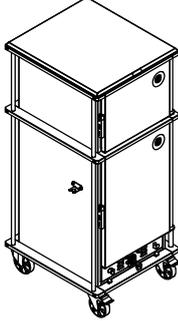
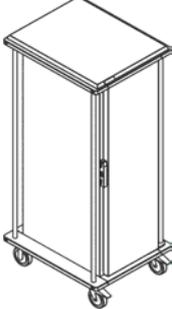
The models BKW1/14 L-GN+5PK and BKW1/28 B-GN+10PK are equipped with an additional insulated compartment above the heat area. This compartment can be equipped additionally with a cold storage plate to be able to keep the temperature constant in the interior of the compartment for approx. 4 hours at approx. 39.2°F (4°C) when the ambient temperature is approx. 77°F (25°C) .

If it is intended to transport the banquet trolley by lorry, a transport securing device available at [HUPFER®](#) can be used. This additional option must be indicated when ordering.

The safety holders enable damage-free fastening and secure transport inside a lorry.

### 3.5 Technical Data

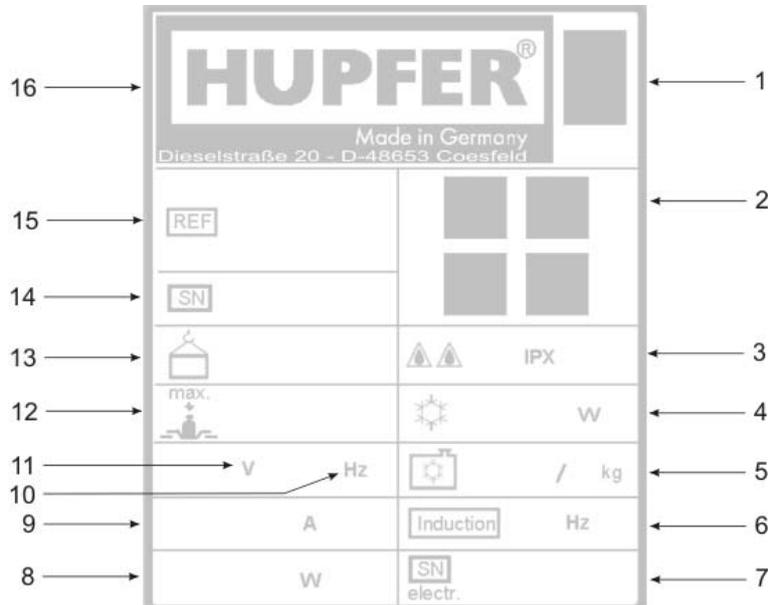
Dim.		BKW 1/14 L-GN	BKW 1/20 L-GN	BKW 1/36 B-GN
				
Width	in (mm)	25.20 (640)	25.20 (640)	31.30 (795)
Depth	in (mm)	30.51 (775)	30.51 (775)	35.24 (895)
Height	in (mm)	51.54 (1309)	65.12 (1654)	61.93 (1573)
Tare weight	lbs (kg)	218.26 (99)	257.94 (117)	308.65 (140)
Payload	lbs (kg)	154.32 (70)	220.46 (100)	396.83 (180)
Capacity (related to grids with the basic size GN1/1 12.8x20.87 (325x530 mm), that of the GN containers is correspondingly smaller)		14 grids	20 grids	36 grids
Ledge spacing of the support ledge frames	in (mm)	2.26 (57.5)	2.26 (57.5)	2.26 (57.5)
Operating and environmental conditions of casters	°C (°F)	-20 to +50 (-4 to 122)	-20 to +50 (-4 to 122)	-20 to +50 (-4 to 122)
Caster diameter	in (mm)	4.92 (125)	4.92 (125)	6.30 (160)
Nominal current	A	6.9	6.9	6.9
Nominal voltage	V	220-230	220-230	220-230
Frequency	Hz	50/60	50/60	50/60
Connected load	W	1600	1600	1600
Protection class		IPX4	IPX4	IPX4
Thermostat setting	°C (°F)	30-95 (86-203)	30-95 (86-203)	30-95 (86-203)
Temperature regulation		Variable control	Variable control	Variable control
Maximum crockery temperature	°C (°F)	80 (176)	80 (176)	80 (176)

	Dim.	BKW 1/14 L-GN+5PK	BKW 1/28 B-GN+10PK	BKW 1/23 L-GN
				
Width	in (mm)	25.20 (640)	31.30 (795)	25.20 (640)
Depth	in (mm)	30.51 (775)	35.24 (895)	30.51 (775)
height	in (mm)	73.15 (1858)	74.49 (1892)	65.12 (1654)
Tare weight	lbs (kg)	149 (328.49)	192 (423.29)	108 (238.10)
Payload	lbs (kg)	154 (70) heated, 55 (25) neutral	308.5 (140) heated, 110 (50) neutral	52.16 (115)
Capacity (related to grids with the basic size GN1/1 12.8x20.87 (325x530 mm), that of the GN containers is correspondingly smaller)		heated: 14 grids neutral: 5 grids	heated: 28 grids neutral: 10 grids	neutral: 23 grids
Ledge spacing of the support ledge frames	in (mm)	heated: 2.26 (57.5) neutral: 2.83 (72)	heated: 2.26 (57.5) neutral: 2.83 (72)	neutral: 2.26 (57.5)
Operating and ambient conditions	°C (°F)	-20 to +50 (-4 to 122)	-20 to +50 (-4 to 122)	-20 to +50 (-4 to 122)
Caster diameter	in (mm)	4.92 (125)	6.30 (160)	4.92 (125)
Nominal current	A	6.9	6.9	-
Nominal voltage	V	220/230	220/230	-
Frequency	Hz	50/60	50/60	-
Connected load	W	1600	1600	-
Protection class		IPX4	IPX4	-
Thermostat setting	°C (°F)	30-95 (86-203)	30-95 (86-203)	-
Temperature regulation		Variable control	Variable control	-
Maximum crockery temperature	°C (°F)	80 (176)	80 (176)	-

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

### 3.6 Rating Plate

The rating plate is at the bottom right on the rear side of the banquet trolley.



**Figure 4** Rating plate

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

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

### 4.1 Transport

#### CAUTION



#### Damage to appliances caused by improper transport

Appliances should be safely secured when transported off site inside a vehicle such as a truck. The total brakes are not suitable for securing the appliances when they are transported in a vehicle.

If the appliances are not secured properly, there is a risk of property damage and personal damage caused by squashing.

Secure each individual separate appliance using suitable transport securing devices. If possible, use the transport securing device available at [HUPFER®](#) to be able to fasten the banquet trolley in the lorry without causing any damage.

The banquet trolley is delivered as an assembled unit, i.e. it is completely assembled including the thermal module.

When loading, use only hoists and load lifting devices approved for appliances 1.5 times heavier than the banquet trolley to be lifted. Only transport vehicles approved for the weight of the appliance may be used.

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

### 4.2 Commissioning

#### DANGER



#### Hazardous electrical voltage

Electrical current can pose a considerable threat to life and physical well-being and may lead to injuries.

Before putting the appliance into operation, check whether the power supply indicated on the rating plate (230V / 50 Hz) corresponds to the local power supply. If this is not the case, do not put the appliance into operation.

Do not use any extension leads in wet areas.

The banquet trolley and especially the safety equipment must be checked for external visible damages and defects before being put into operation. In case of damage, immediately inform the competent bodies and do not put the banquet trolley into operation.

Remove the original packaging and check whether the appliance is complete and undamaged. Do not put a defective appliance into operation under any circumstances and inform the supplier immediately in such a case.

Always place the banquet trolley on firm and level floors when unpacking and operating it. Apply the total brakes on both swivel casters to secure the appliance against rolling away.

#### INFO

#### Disposal of packing material

The packing consists of recyclable materials and can be disposed of accordingly. The different materials should be separated and disposed of in an environmentally friendly manner. The local agencies responsible for disposal must be contacted regarding removal

The interior and exterior of the banquet trolley should be thoroughly cleaned with a soft cloth before putting it into operation for the first time.

Afterwards, it is necessary to check whether the appliance functions properly.

The following functions are to be checked separately:

- In all the appliances: the functioning of the total brake.
- In the heated appliances: the functioning of the controls and heating.

Ensure that the appliance is clean and dry before putting it into operation.

### 4.3 Storage and Recycling

---

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

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

NOTE	Condensation
Ensure that there is sufficient ventilation and no major variations in temperature in the storage location to prevent condensation from forming.	

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

If the banquet trolley is required to be recycled, all the operating and auxiliary materials must be disposed of in an environmentally compatible manner. Recyclable materials must be properly separated and disposed of in an environmentally compatible manner in accordance with local Waste Disposal Regulations. The local agencies responsible for disposal must be contacted regarding removal. Separate the reusable materials of the appliance (casters and plastic parts) before disposing of or send the appliance to a recycling centre. Dispose of the electronics at corresponding collection centres.

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

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

## 5 Operation

### CAUTION

#### Appliance damage



Fully loaded banquet trolleys on very uneven floors and steep slopes can lose their balance and tip over.

Only move the banquet trolley over even floors.

Never try to catch the banquet trolley with your hands if it tips over due to carelessness or external circumstances.

### CAUTION

#### Appliance damage



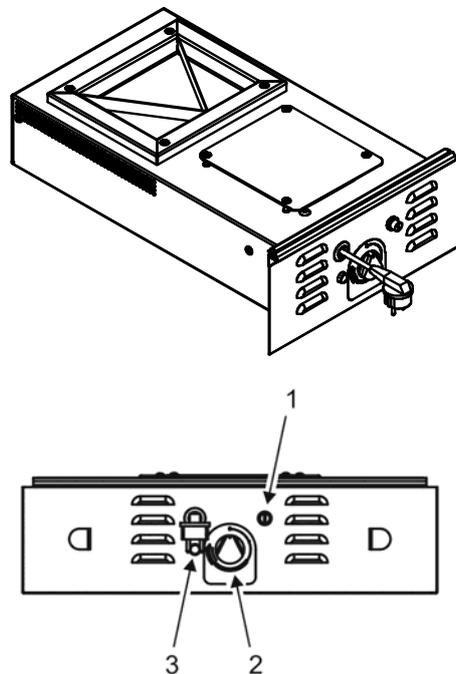
The mains plug of the appliance may not be inserted or pulled out when loaded. The appliance must be switched off (marking on the on/off rotary switch with thermostat faces upward). Only in case of emergency may the plug be pulled out when loaded.

Always ensure that the appliance is switched off before you insert the mains plug or pull it out.

The banquet trolley, especially the safety equipment, must be checked for external visible damages and defects whenever it is put into operation. In case of damage, immediately inform the competent bodies and do not put the banquet trolley into operation.

### 5.1 Arrangement and Function of the Controls

The controls of the heated banquet trolley are arranged under the door on the panel of the thermal module.



**Figure 5** Thermal module with controls

- 1 Button of the safety temperature limiter (STB)
- 2 On/off rotary switch with thermostat
- 3 Control lamp

Position number	Control	Function
1	Safety temperature limiter button	Springs out if the safety temperature limiter has been triggered.
2	On/off rotary switch with thermostat	Controls heating and maintains the selected temperature. The switch positions of the on/off rotary switch with thermostat correspond to the following temperatures: 0 off 1 approx. 77°F (25°C) 2 approx. 122°F (50°C) 3 approx. 167°F (75°C) 4 approx. 203°F (95°C).
3	Control lamp	Light is on if the heating runs and functions properly. If the temperature has been achieved, the control lamp goes off.

## 5.2 Operation

### 5.2.1 Heated Banquet Trolleys

#### WARNING

#### Hazard caused by hot surfaces



If the thermostat is set to position 3 and higher, the permitted maximum temperature of 149°F (65°C) for touchable appliance surfaces can be exceeded. This can cause burns.

The appliance set to the level 4 may only be operated by an instructed staff. Wear suitable protective clothing.

#### WARNING

#### Danger of escaping steam



Hot steam can escape when opening the door. Risk of burning. Please maintain a safe distance and wait until the steam has volatilised.

#### CAUTION

#### Damage to the connecting lead



If the holder on the side of models BKW1/36 or BKW1/28 is used for hanging the connecting lead, the latter may get damaged when the appliance is moved.

Due to the width of the design of these models, the connecting lead would no longer be protected by the bumper strips in this case.

Always reel up the connecting lead on the holders provided at the thermal module before moving the appliance.

#### CAUTION

#### Appliance damage



The mains plug of the appliance may not be inserted or pulled out when loaded. The appliance must be switched off (marking on the on/off rotary switch with thermostat faces upward). Only in case of emergency may the plug be pulled out when loaded.

Always ensure that the appliance is switched off before you insert the mains plug or pull it out.

### Step 1: Filling the thermal module

The water tank of the thermal module must be filled with water before each operation.

- Switch off the appliance by turning the on/off rotary switch with thermostat to the left.
- Pull out the mains plug.
- Fill the water tank with 25 oz (700 ml) cold water.

#### INFO

#### Water supply

The amount of water in the thermal module is sufficient to supply the banquet trolley with moist hot air for approx. 3.5 operating hours.

### Step 2: Setting the temperature

The on/off rotary switch with thermostat, the red button of the safety temperature limiter, the control lamp and the connecting lead are arranged on the panel of the thermal module.

- Ensure that the appliance is switched off.
- Connect the banquet trolley to the mains.
- Set the required temperature using the on/off rotary switch with thermostat by turning the rotary switch to the right.

#### WARNING

#### Hazard caused by hot surfaces



If the thermostat is set to position 3 and higher, the permitted maximum temperature of 149°F (65°C) for touchable appliance surfaces can be exceeded. This can cause burns.

The appliance set to the level 4 may only be operated by an instructed staff. Wear suitable protective clothing.

#### INFO

#### Operating temperature

A temperature of approx. 203°F (95°C) is recommended for a normal operation. If the interior of the banquet trolley is empty, the operating temperature will be reached in approx. 25 minutes.

### Step 3: Loading

After the operating temperature has been reached, the banquet trolley can be loaded with hot food in the Gastronorm containers or meals already portioned on the grids.

#### WARNING

#### Danger of escaping steam



Hot steam can escape when opening the door. Risk of burning. Please stay at a safe distance and wait until the steam has volatilised.

#### CAUTION

#### Damage to the connecting lead



If the holder on the side of models BKW1/36 or BKW1/28 is used for hanging the connecting lead, the latter may get damaged when the appliance is moved.

Due to the width of the design of these models, the connecting lead would no longer be protected by the bumper strips in this case.

Always reel up the connecting lead on the holders provided at the thermal module before moving the appliance.

**NOTE**

**Inserting the Gastronorm containers**

Leave a space of at least 1.77" (45 mm) between the bottommost Gastronorm container and the upper edge of the thermal module to avoid heat accumulation.

- Load the banquet trolley quickly. Ensure that the door does not remain open unnecessarily to keep heat loss as low as possible during the loading.
- Leave the appliance connected to the mains after it has been loaded until the operating temperature is reached again. The control lamp on the switch panel switches off when the temperature is reached.

**Step 4: Moving**

- Switch off the banquet trolley at the on/off rotary switch with thermostat by turning the rotary switch to the left.
- Pull out the mains plug and insert it into the plug park provided on the banquet trolley or reel it up on the thermal module.
- Release the total brakes.
- Push or pull the banquet trolley to the destination place.
- Lock with the total brakes and make sure that they are engaged and that the banquet trolley cannot be moved.
- Reconnect the banquet trolley to the mains.

**Step 5: Unloading**

**WARNING**

**Danger of escaping steam**



Hot steam can escape when opening the door. Risk of burning.  
Please stay at a safe distance and wait until the steam has volatilised.

- Select the temperature range using the on/off rotary switch with thermostat to switch the heating back on by turning the rotary switch to the right.
- We recommend a temperature of approx. 203°F (95 °C). Set to the maximum level about 10 minutes prior to serving meal and keep this setting until the end of serving.
- Proceed with serving as quickly as possible.
- Whenever the serving procedure is interrupted, close the door immediately!

**5.2.2 Neutral Banquet Trolley**

**Step 1: Loading**

- Put Gastronorm containers or portioned meals on grids into the banquet trolley.

**Step 2: Moving**

- Release the total brakes.
- Push or pull the banquet trolley to the destination place.
- Lock with the total brakes and make sure that they are engaged and that the banquet trolley cannot be moved.

**Step 3: Unloading**

- Proceed with serving. If the serving procedure is interrupted, make sure to close the door.

## 5.3 Measures at the End of Use

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### 5.3.1 Heated Banquet Trolleys

Proceed as follows to switch off the heated banquet trolley:

- Switch off the heating at the on/off rotary switch with thermostat by turning the rotary switch to the left.
- Pull out the mains plug and insert it into the plug park provided on the banquet trolley or reel it up on the thermal module.
- Apply both total brakes in order to secure the appliance against unintended movement.
- Allow the thermal module of the banquet trolley to cool down and drain it.

### 5.3.2 Neutral Banquet Trolley

- To stop the neutral banquet trolley, apply both total brakes in order to secure the appliance against movement.

## 6 Troubleshooting and Repair

### 6.1 Safety Measures

<b>DANGER</b>	<b>Hazardous electrical voltage</b>
	<p>The electrical voltage may be considerably dangerous to limb and life of persons and lead to serious injuries.</p> <p>Before examining for faults, switch off the appliance and take it off the power supply. Pull out the mains plug and insert the connecting lead into the holder at the banquet trolley provided for this purpose or reel it up on the holders of the thermal module.</p>
<b>CAUTION</b>	<b>Damage to property and injuries to persons</b>
	<p>Damage to property and injuries to persons may result from electrical and safety-relevant components being replaced by unqualified and uninstructed personnel.</p> <p>Electrical and safety-relevant components may only be replaced by <b>HUPFER®</b> customer service or by qualified specialists authorised by <b>HUPFER®</b>.</p> <p>Installation of these components by third parties other than <b>HUPFER®</b> customer service or qualified specialists authorised by <b>HUPFER®</b> will result in our duty to warranty and liability becoming void.</p>

### 6.2 Instructions regarding Fault Repair

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

Servicing should be carried out by authorised specialists only.

Defective components should only be replaced with **HUPFER®** original parts. The modular design simplifies the replacement of individual components.

Always specify the information and corresponding part number indicated on the rating plate when contacting the after-sales service or ordering spare parts.

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

### 6.3 Fault and Action Table

Fault	Possible cause	Remedy
Running noise of casters	Defective caster bearings	Replace the casters.
	Sticky surface of the casters	Clean the casters with water.
The safety temperature limiter gets triggered, the heating switches off, the control lamp goes off and the safety temperature limiter button on the heating panel springs out.	Temperature sensor is damaged or broken	Inform service partners and qualified electricians.
	Overheating of the banquet trolley	<p>Allow the appliance to cool down. Press in the safety temperature limiter button to switch the heating on again. Monitor the temperature display by means of the control lamp to check whether the heating gets switched off when the set temperature is reached.</p> <p>If this does not happen or the STB triggers again, there is a fault. Inform service partners and qualified electricians.</p>

## 7 Cleaning and Care

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### 7.1 Safety Measures

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#### DANGER



#### Hazardous electrical voltage

Electrical current can pose a considerable threat to life and physical well-being and may lead to injuries.

Before cleaning, switch off the appliance and take it off the power supply. Pull out the mains plug and insert the connecting lead into the holder at the banquet trolley provided for this purpose or reel it up on the holders of the thermal module.

Do not spray the appliance and especially the electrical housings with water or cleaning agents while cleaning.

---

#### WARNING



#### Hazard caused by hot surfaces

The heated appliances can become hot during operation and only cool down slowly in the air.

For cleaning, open the door of the appliance and let it cool down sufficiently.

---

#### WARNING



#### Danger of escaping steam

Hot steam can escape when opening the door. Risk of burning.

Please maintain a safe distance and wait until the steam has volatilised.

---

#### CAUTION



#### Damage to property and injuries to persons

The appliance should not be cleaned with running water, or steam-jet or high-pressure cleaners. The appliance must be taken out of operation and switched off at the mains beforehand in any area where high-pressure steam or pressure washers are to be used.

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### 7.2 Hygiene Measures

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

All persons must have sufficient knowledge about the locally valid hygiene regulations, observe them and comply with them.

Use a waterproof plaster to cover wounds on hands and arms.

Never sneeze or cough on clean crockery or meals.

## 7.3 Cleaning and Care

If the banquet trolley and the thermal module are handled with care, cleaned and maintained on a regular basis are not exposed to excess moisture, they do not require any additional care measures.

The interior of the trolley should be cleaned regularly, at the latest every 25 operating hours, to ensure a hygienically perfect operation.

To clean thoroughly and quickly, wipe the interior of the banquet trolley with a soft cloth. Use a soft cleaning cloth or an uncoated sponge for cleaning. Use degreasing liquid cleansers that are approved for the food industry.

Proceed as follows to clean the heated banquet trolley:

- Shut down the appliance and switch it off at the on/off rotary switch with thermostat Pull out the mains plug and insert it in the holder on the banquet trolley provided for this purpose or reel it up on the holders of the thermal module.
- Open the door.
- Let the interior cool down.
- Lift up the support ledge frames and take out from the holders.
- Wipe the interior and exterior panelling, the thermal module and grids.

The thermal module shall not be splashed with water in any case. This is applied especially to the area with the electrical components.

Never use high-pressure cleaners, chloride-based cleaning agents, abrasive cleaning powder or other dry cleaning agents, steel wool, steel sponges and/or sharp-edged items.

**Table of care measures**

Cleaning and care measures	Action	daily	weekly	monthly	Interval
Interior of the banquet trolley	Clean				x <sup>1</sup>
Ball bearing mounted casters pivoted on the axle	Lubricate				x <sup>2</sup>
Connecting lead: mechanical damages and obsolescence	Check				x <sup>3</sup>
Mains plug: mechanical damages and obsolescence	Check				x <sup>3</sup>

x<sup>1</sup> = if necessary, every 25 operating hours at the latest

x<sup>2</sup> = every 2 months

x<sup>3</sup> = every 6 months

## 7.4 Special Care Instructions

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Resistance to corrosion in stainless steel is provided by a passive layer which is formed on the surface when oxygen is absorbed. The oxygen in the air is sufficient for the formation of the passive layer inasmuch as faults or damage to the passive layer can be remedied again automatically by mechanical action.

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

Such aggressive substances include:

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

Further damages can occur due to:

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

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

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

## 8 Spare Parts and Accessories

### 8.1 Safety Measures

CAUTION	Damage to property and injuries to persons
	<p>Damage to property and injuries to persons may result from electrical and safety-relevant components being replaced by unqualified and uninstructed personnel.</p> <p>Electrical and safety-relevant components may only be replaced by qualified specialists authorised by HUPFER® or by HUPFER® customer service.</p> <p>Installation of these components by third parties other than qualified specialists authorised by HUPFER® or by HUPFER® customer service will result in our duty to warranty and liability becoming void.</p>

### 8.2 Notes on Servicing

Servicing should be carried out by authorised specialists only.

Defective components should only be replaced with HUPFER® original parts. That is the only way to guarantee a safe operation and long service life along with a high transport capacity.

Always specify the data and corresponding item code provided on the rating plate when consulting the after-sales service or ordering spare parts.

Always state the order number and corresponding part number when ordering replacement parts. The order number is given on the rating plate of the banquet trolley.

Always keep a full set of replacement parts in stock as a reserve or take out a maintenance contract with a specialist dealer, so that you are not left unable to use the appliance for long periods of time.

### 8.3 Spare Parts and Accessories List

#### BKW1/14 L-GN | BKW1/20 L-GN | BKW1/14 L-GN +5PK

014000400	Fixed caster	Ø4.92" (125 mm), ball bearing	Plastic housing, screw plate
014000402	Swivel caster	Ø4.92" (125 mm) with lock, ball bearing	Plastic housing, screw plate

#### BKW1/36 B-GN | BKW 1/28 B-GN+10PK

014000152	Fixed caster	Ø6.30" (160 mm), caster bearing	Steel housing galvanised
014000151	Swivel caster	Ø6.30" (160 mm) with lock, caster bearing	Steel housing galvanised

The following plug types can be used with banquet trolleys:

- 2-pole Schuko angle plug (standard)
- CEE plug 230 V - 16 A - 3-pole in Germany on request, in Switzerland standard
- 3-pole British mains plug in accordance with BS 1363 A for Great Britain and Hong Kong.

