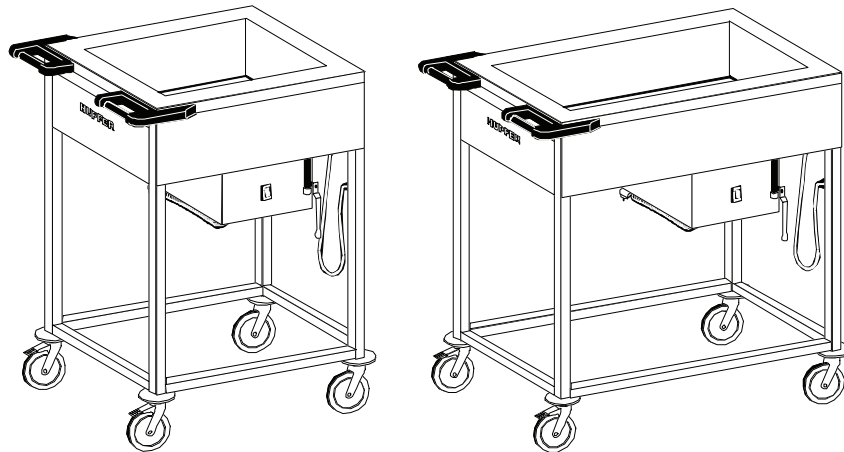


Operating Instructions



COMCATER
Foodservice equipment



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Mobile bain marie
SPA/K-2DW | SPA/K-3DW

1 Introduction

1.1 Appliance Information

Appliance designation	Mobile bain marie
Appliance type/s	SPA/K-2DW SPA/K-3DW
Manufacturer	HUPFER® Metallwerke GmbH & Co. KG Dieselstraße 20 48653 Coesfeld P.O. Box 1463 D-48634 Coesfeld ☎ +49 2541 805-0 📠 +49 2541 805-111 www.hupfer.de info@hupfer.de

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

Ensure that sources of danger and possible faulty operations have been pointed out to the operating staff.

Subject to modifications

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

Manual edition
4330036_A0

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1.3 List of Abbreviations

Abbreviation	Definition																																				
BGR	Rule of the Professional Association																																				
BGV	Regulation of the Professional Association																																				
CE	Communauté Européenne European Community																																				
BGR	Rule of the Professional Association																																				
DIN	Deutsches Institut für Normung German Institute for Standardisation, technical regulations and technical specifications																																				
EC	European Community European Union																																				
EN	European Standard Harmonised standard for the EU market																																				
E/V	Spare and wearing part																																				
HACCP	Hazard Analysis and Critical Control Points Hazard Analysis of Critical Control Points																																				
IP	<p>International Protection. The abbreviation IP and a further two-digit index specify the protection class of a housing.</p> <p>The first digit: Protection against ingress of solid foreign objects The second digit: Protection against ingress of water</p> <table border="1"> <tbody> <tr> <td>0</td> <td>No protection against contact, no protection against ingress of solid foreign objects</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 $\varnothing > 1.97''$ (50 mm)</td> <td>1</td> <td>Protection against vertically falling water drops</td> </tr> <tr> <td>2</td> <td>Protection against contact with the fingers, protection against ingress of foreign objects $\varnothing > 0.5''$ (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, thick wires or similar objects of $\varnothing > 0.1''$ (2.5 mm), protection against foreign objects $\varnothing > 0.1''$ (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, thick wires or similar objects of $\varnothing > 0.04''$ (1 mm), protection against foreign objects $\varnothing > 0.04''$ (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 strong water spray</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 objects	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 vertically falling water 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, thick 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, thick 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 strong water spray			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																																				

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.
Cook&Chill Kitchens	"Cook and Chill": Kitchens where warm food after being cooked is chilled as quickly as possible.
Cook&Serve Kitchens	"Cook and Serve": Kitchens where warm food is served immediately after being cooked or kept warm until it is consumed.
Specialist	A specialist is a person who can evaluate work assigned and can individually recognise any possible dangers due to professional training, specialist knowledge and experience as well as knowledge of the respective guidelines.
Gastronorm	Gastronorm is a measurement system applied worldwide, for instance, in 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 12.8x20.9" (325x530mm). Items are available in different depths.
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.
Control	Compare with certain conditions and/or characteristics such as damage, leaks, filling levels, heat.
LMHV	Regulation on the Hygiene of Foodstuffs Regulation on the requirements concerning hygiene when producing, handling and placing food on the market
Machine safety	The term of machine safety means all the measures used to avert injury to persons. The basis for this are national as well as EC-wide valid directives and laws for protecting users of technical devices and systems.
Passive layer	A non-metallic protective layer on a metallic material that prevents or slows down material corrosion.
Check	Compare with certain values such as weight, torque, content, temperature.
Qualified person, qualified staff	Qualified personnel are persons who due to their professional training, experience and instruction as well as their knowledge of the respective 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 possible danger (definition of specialists according to IEC 364).
Schuko®	The abbreviation of the German term "Protective contact" that indicates a system of domestic plugs and sockets equipped with protective earthed contacts used in most of Europe.
Instructed persons	An instructed person is a person who has been instructed on the possible risks resulting from improper behaviour when carrying out the assigned task as well as on the necessary protective equipment and protective measures and trained for this task if necessary.

1.5 Orientation Guide

The front

"The front" means the side where the push bars are arranged. The operating staff stays at this side to move the mobile bain marie.

The rear

The side named "the rear" means the opposite side of the front side (the front).

The right

The side named "the right" means the side at the right hand side of the front side (the front). The On/Off switch of the cooling element is on this side.

The left

The side named "the left" means the side at the left hand side of the front side (the front).




1.6 Notes on Use of Manual

1.6.1 Notes on the manual structure

This manual is structured in functional and task orientated chapters.

1.6.2 Notes and their illustrations used in the chapters

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.

DANGER	Brief description of danger
	<p>There is an imminent danger to life and limb of the user and / or third parties when the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of danger is indicated by a symbol and explained in the accompanying text in more detail. In this example the general sign of danger is used.</p>
WARNING	Brief description of danger
	<p>There is an indirect danger to life and limb of the user and / or third parties when the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of danger is indicated by a symbol and explained in the accompanying text in more detail. In this example the general sign of danger is used.</p>
ATTENTION	Brief description of danger
	<p>There is a potential risk of injury or damage to property when the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of danger is indicated by a general sign and explained in the accompanying text in more detail. In this example the general sign of danger is used.</p>
NOTE	Brief description of additional information
	Attention is pointed to special conditions or additional important information on the respective subject.
INFO	Short title
	Contains additional information on work assisting features or recommendations on the respective subject.

2 Safety Instructions

2.1 Introduction

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

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

You must comply with the respectively valid national and international Safety at Work Regulations. The manager 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 rules on health and safety at work issued by the Main Association of the industrial Professional Associations, 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 point out the dangers that can occur while operating or cleaning the appliance. In both cases, the symbol provides information on the type and circumstances of danger.

The following symbols can be used:



General hazardous area



Hazardous electrical voltage

2.3 Safety Instructions for Appliance Safety

Safe operation of the appliance depends on appropriate and thorough use. Negligent handling of the appliance can lead to danger to life and limb of the user and / or third parties as well as hazards to the appliance itself and the other operator's 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 the operating and actuating elements must be in a perfect and functionally reliable condition with regards to technical standards.
- Modifications or retrofits of the equipment are only permitted in consultation with the manufacturer and on receipt of his written agreement.
- The appliance must be checked for external visible damage and defects whenever it is put into operation. In case of damages, inform immediately the competent bodies and switch off the mobile bain marie.
- In no case may people sit or stand on the appliance. Transport of persons is not permitted.
- The appliance is provided exclusively for manual transport. Transport using any kind of devices is not permitted. Risk of injury and damage.
- Release both total brakes before moving it. Moving the appliance with the total brakes locked can damage the chassis.
- Mobile bain maries should only be moved over level floors. Moving the appliance over very uneven floors can damage the chassis.

- Moving it over inclined planes or steps is not permitted.
- When approaching walls and moving round obstacles always pay attention to persons in the way. Risk of injury.
- When moving the appliance, always hold both handles with your hands. Never let go of the appliance while moving it.
- When transporting the appliance, do not move it faster than a walking pace. Heavily laden appliances are difficult to brake and steer. If necessary, ask for assistance.
- If the mobile bain marie tips over due to outside influence or inattention, never catch it manually. Risk of injury.
- In the case of off-site transport in a vehicle such as a lorry, the appliances should be secured properly. The total brakes are not sufficient as a transport securing method.
- Do not stop the appliance by applying the total brakes. The total brakes are designed to be able to prevent the appliance from unintended moving. Do not stop the appliance on sloping floors. Secure the appliance against rolling away by applying both total brakes when stopping it.
- Before transporting, switch off the appliance using the On/Off switch, pull out the mains plug and insert it into the holder provided.
- Forceful straining of the connecting lead can lead to damage to the internal line. Risk of fire.
- Never pull the mains plug out of the socket by the connecting lead. The standard models of HUPFER® appliances are equipped with a Schuko® angle plug. In contrast to a straight Schuko® plug this plug only sticks insignificantly out of the socket and so cannot be damaged by being hit at the side. If the appliance is moved without pulling out the mains plug beforehand, the socket can be severely damaged or even pulled out from the wall as a result of leverage arising from overstretching of the connecting lead.
- Never move the appliance by pulling by the connecting lead.
- If the mains plug has come into contact with water it must be dried before inserting it into the socket. Danger to life.
- Damaged mains plugs or the connecting lead are to be replaced by authorised specialists before the appliance is used.
- Do not use any extension leads in wet and damp areas.
- Only insert mains plugs into suitable sockets. If the mains plug does not fit, the connecting lead of the appliance is to be retrofitted by authorised specialist staff.
- The use of socket adapters is not permitted. Risk of fire.
- A temporary storage lasting longer than three months must take place in a dry and frost-free environment. The appliance must be kept covered with a suitable covering material to be protected against dust ingress.

2.4 Safety Instructions for Transport

The following points are to be observed when transporting the mobile bain marie:

- When loading, use only hoists and load lifting devices approved for the weight of the appliance to be lifted.
- Use transport vehicles that are approved for the weight of the mobile bain marie.
- In no case put a defective appliance into operation and inform the supplier immediately.
- If possible, transport the appliance upright, i.e. standing on the casters. If this is not possible, the appliance must be set upright for two hours before putting it into operation, so that the coolant can flow back into its initial position.

2.5 Safety Instructions for Cleaning and Care

The following points must be observed when carrying out any cleaning and maintenance operations:

- For reasons of hygiene the cleaning instructions must be strictly observed.
- Take the appliance out of operation before starting the cleaning process. Pull out the mains plug and insert it into the holder located on the appliance.
- Never flood the appliance with water for cleaning purposes. There is danger to life, when the appliance is reconnected to the mains.
- Do not clean the appliance with 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 steam-jet or high-pressure washers are to be used.
- Do not tilt the appliance for cleaning. If this cannot be avoided, keep it in a vertical position for two hours before putting it into operation, so that the coolant can flow back into its initial position.

2.6 Safety Instructions for Troubleshooting

The following points shall be observed when carrying out any maintenance and troubleshooting operations:

- The local applicable Accident Prevention Regulations must be observed.
- Take the mobile bain marie out of operation, switch it off, pull out the mains plug and secure it against unauthorised reactivation before performing maintenance or troubleshooting operations. When working on the electrical installation, the appliance must be switched off at the mains and secured against reactivation. This work must only be carried out by a certified electrician.
- Observe the valid product safety regulations when handling oils, greases and other chemical substances.
- Carry out all the checks and inspections of the appliance on a regular basis. Remedy immediately deficiencies, such as loose screw connections or damaged connecting leads.
- Only authorised specialists may perform all repair work.
- Defective components should only be replaced with original parts.
- Do not tilt the appliance for troubleshooting. If this cannot be avoided, keep it in a vertical position for two hours before putting it into operation, so that the coolant can flow back into its initial position.

2.7 Notes on Specific Hazards

Electrical energy

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

3 Description and Technical Data

3.1 Performance Description

Mobile bain maries are mobile appliances with continuous seamless cooling wells and active static cooling. Their purpose is to keep cold products which are introduced cold in closed compartments.

The principal field of use is the distribution of food from Gastronorm containers or of individually packaged cold food.

Another typical field of use of mobile bain maries is as mobile cold drink serving unit for event catering. Mobile bain maries can be used in Cook&Chill kitchens to accommodate and cool food in Gastronorm containers, which should be regenerated at a later time.

The storage period of cold food is not limited by the equipment. With cooling switched on, the appliance can be stocked as early as the previous day. The cooling ensures that transport, storage and serving can take place in accordance with the LMHV and HACCP guidelines. When cooling meals or the components it is necessary to comply with the respective legal directives on food storage (duration and temperature).

3.2 Intended Use

Mobile bain maries are intended to accommodate and transport cold food in Gastronorm containers or individually packaged drinks and desserts. Use of other loads is not permitted.

When stored meals are kept properly, it is necessary to check and verify the compliance of the prescribed storage temperatures with appropriate measuring instruments (thermometers) before the distribution of meals.

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

The intended use means the predetermined procedures, compliance with the indicated specifications and use of the delivered or additionally available original accessories.

3.3 Improper Use

Mobile bain maries are intended for keeping products cold which have been introduced in the cold state. Warm meals should not be put into the appliance.

The permitted ambient temperature may not be exceeded.

The appliances should not be exposed to direct sunlight.

In no case may people sit down or stand on or in to the appliance.

Any other use, especially loading the mobile bain marie with other loads as given, is not permitted.

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

3.4 Appliance Description

3.4.1 View of the appliance mobile bain marie

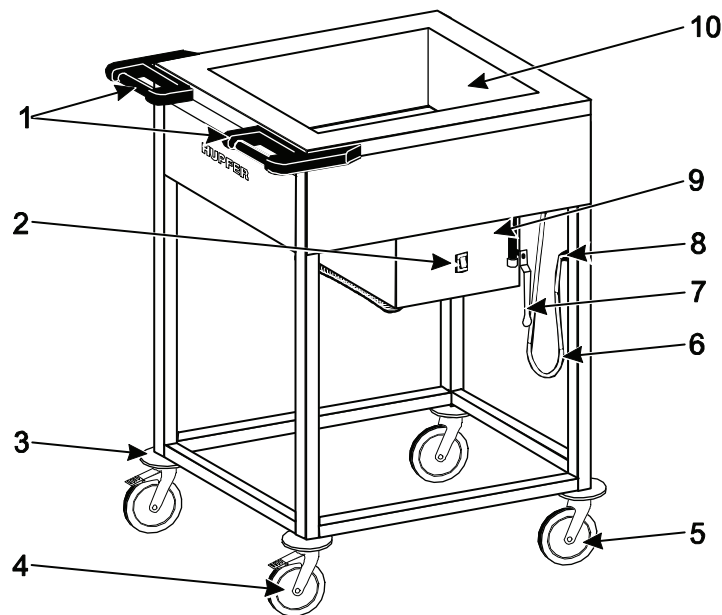


Figure 1 View of the appliance SPA/EB-2

1	Push bars	6	Connecting lead with mains plug
2	On / Off switch	7	Water drain tap
3	Protection plates	8	Plug park
4	Swivel caster with total brake	9	Cooling element
5	Swivel caster without total brake	10	Cooling well

3.4.2 Appliance Description

Mobile bain maries are mobile appliances made of high quality stainless steel with cooling wells. They hold up prepared cold food in Gastronorm containers or individually packaged cold food.

2 or 3 GN 1/1 containers or their subdivisions hold up the food in continuous seamless cooling wells with a maximum depth of 7.87" (200mm). The high quality special insulation of the cooling wells provide an all-around thermal insulation.

Mobile bain maries operate with an electronic temperature regulation. The factory set value for the air temperature in the well is 42.8°F (6°C). This value is sufficient for the storage of most ready meals and in addition gives a problem-free cooling process without the formation of ice or bloom on the condenser or the necessity to intervene manually in the automatic defrosting cycles. The maximum cooling capacity will automatically be called up.

The control panel is located user-friendly on the cooling element below the cooling well and is directly accessible in order to simplify servicing. Factory settings should only be changed by authorised specialists.

Mobile bain maries are equipped with four swivel casters, two of which have total brakes that prevent the appliance from moving. Plastic protection plates on the swivel casters protect the lateral sides of the appliance and operating elements against damages. Two ergonomically formed push bars with integrated bumper protect your hands against injuries.

It is possible to clean the cooling wells easily and quickly through the drain tap. Due to the open base, the direct outlet of liquids into on-site drain ducts or drains at the bottom is possible. The transfer into other containers is not necessary.

The appliances can be expanded with one bottom shelf to create additional storage space.


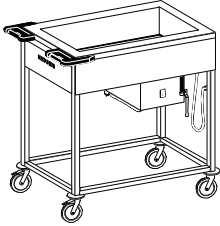
3.4.3 Optional accessories

The following parts can be applied as optional accessories for the mobile bain marie:

- **Support bar**
Support bars are special elements made of stainless steel (length 12.8 or 20.9" [325 or 530 mm]), which are intended to be inserted into the cooling well and make the use of smaller Gastronorm containers possible.
- **Shelf**
Shelves made of stainless steel can be put into the base frame of the mobile bain marie under the bain-marie wells and thus create additional storage space. Only objects with a firm base may be stored on the shelves. Do not move the appliance when there are open containers with hot liquids on it. The permitted total weight of the mobile bain marie may not be exceeded.
- **Drain extension tube**
The drain extension tube consists of a hose with a threaded connection that is screwed into the water drain tap as an extension hose. The length of the hose of 16.5" (420 mm) is used because the water can be drained out of the bain-marie wells even with an inserted shelf without using a drain container.
- **Gastronorm containers of various sizes**
- **Flexible drain extension tube ½", 42 cm**
- **Swivel casters made of stainless steel, Ø 4.92" (125 mm) with and without total brakes, pin fixing**

The part numbers of the special accessories can be found in the spare parts catalogue and order lists available online.

3.5 Technical Data

	Dim.	SPA/K-2DW	SPA/K-3DW
			
Width	in (mm)	28.3 (719)	28.3 (719)
Depth	in (mm)	34.4 (874)	47.2 (1199)
Height	in (mm)	35.4 (900)	35.4 (900)
Own weight	lbs (kg)	119 (54)	147.7 (67)
Payload	lbs (kg)	440.9 (200)	496 (225)
Size of cooling wells	in (mm)	20.1 x 24.8 x 7.9 (510 x 630 x 200) for 2x GN 1/1 and their subdivisions	20.1 x 37.6 x 7.9 (510 x 955 x 200) for 3x GN 1/1 and their subdivisions
Operating and ambient conditions of the appliance	°F (°C)	50 to 89.6 (10 to 32)	50 to 89.6 (10 to 32)
Caster diameter	in (mm)	4.9 (125)	4.9 (125)
Cooling		static	static
Coolant		R134a, CFC-free	R134a, CFC-free
Coolant filling quantity	lbs (g)	0.35 (160)	0.44 (200)

	Dim.	SPA/K-2DW	SPA/K-3DW
Cooling well required temperature	°F (°C)	42.8 (6)	42.8 (6)
Temperature regulation		electronic	electronic
Chilling capacity	kW	0.21	0.30
Power requirement	kW	0.15	0.22
Electrical connection		230V 1N AC 50 Hz	230V 1N AC 50 Hz
Protection class		IPX4	IPX4
Heat insulation		special insulation	special insulation

The corresponding test marks can be found on our home page at www.hupfer.de.

3.6 Rating Plate

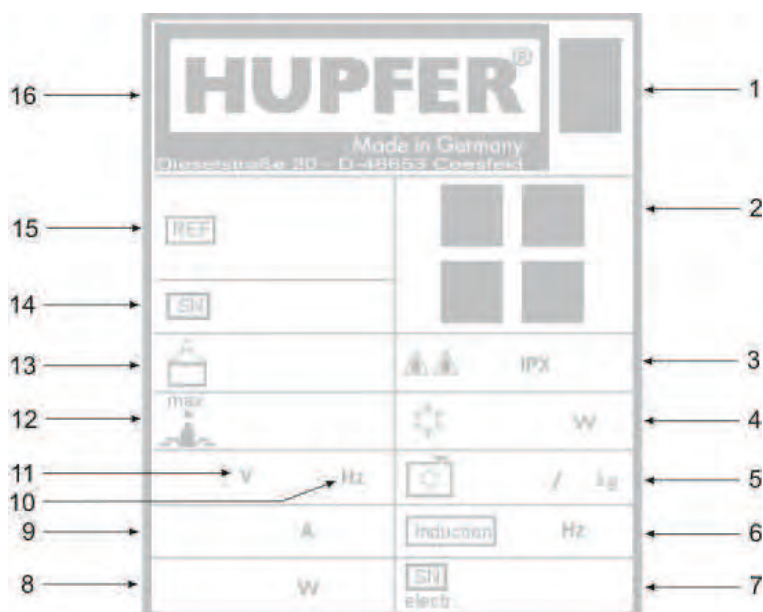


Figure 2 Rating plate

- | | | | |
|---|----------------------------|----|----------------------------|
| 1 | Disposal of old appliances | 9 | Nominal current |
| 2 | Test mark | 10 | Frequency |
| 3 | Protection class | 11 | Nominal voltage |
| 4 | Chilling capacity | 12 | Payload |
| 5 | Coolant | 13 | Own weight |
| 6 | Induction frequency | 14 | Serial number/Order number |
| 7 | Current serial number | 15 | Item and brief description |
| 8 | Electric power | 16 | Manufacturer |

4 Transport, Putting into Operation and Decommissioning

4.1 Transport

ATTENTION

Appliance damages caused by improper transport



In the case of off-site transport in a vehicle such as a lorry, the appliances should be secured properly. The total brakes are not sufficient as a transport securing method.

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

During transport, secure all the individually standing appliances using corresponding transport securing devices.

ATTENTION

Appliance damages caused by improper transport



The mobile bain marie should be transported upright, since spilt coolant can damage the cooling element.

The mobile bain marie must stand on the casters when it is transported.

ATTENTION

Appliance damages



After transporting or storing the appliance horizontally, keep it in a vertical position for some time, so that the coolant can flow back into its initial position.

Wait at least for about 2 hours before you put the appliance into operation.

The mobile bain marie is delivered as an assembled unit, i.e. it is completely assembled including the cooling element.

When loading, use only hoists and load lifting devices approved for the weight of the mobile bain marie. Only the transport vehicles may be used that are approved for the weight of the appliance.

According to the valid purchase contract, the scope of delivery is specified in the shipping documents attached to the delivery item.

4.2 Putting into Operation

DANGER

Hazardous electrical voltage



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

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

Do not use any extension leads in wet areas.

ATTENTION

Appliance damages



After transporting or storing the appliance horizontally, keep it in a vertical position for some time, so that the coolant can flow back into its initial position.

Wait at least for about 2 hours before you put the appliance into operation.

Remove the original packing and check, whether the appliance is complete and undamaged. In no case put a defective appliance into operation and inform the supplier immediately.

Always place the mobile bain marie 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 appropriately. Thereby, the different materials are to be separated and disposed in an environmentally compatible manner. In any case, the local bodies responsible for disposal are to be involved for this purpose

The mobile bain marie should be thoroughly cleaned with a soft cloth before putting it into operation for the first time. Before the appliance is put into operation it must be clean and dry.

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

- the functioning of the total brakes
- the functioning of the operating elements and cooling element.

4.3 Storage and Recycling

Temporary storage must take place in a dry and frost-free environment. The mobile bain marie must be kept covered with a suitable covering material to be protected against dust ingress.

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

NOTE

Condensed water formation

Ensure that there is sufficient ventilation and no large temperature fluctuations in the storage location to avoid condensed water formation.

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

If the mobile bain marie is recycled, all operating and auxiliary materials must be disposed in an environmentally compatible manner. The recyclable materials must be properly separated and disposed in an environmentally compatible manner according to the local Waste Disposal Regulations. In any case, the local bodies responsible for disposal are to be involved for this purpose. Separate the reusable materials of the appliance (casters and plastic parts) before disposing or send the appliance to a recycling centre. Dispose the electronics at corresponding collection centres.

We offer our customers to dispose 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 ask for it at [HUPFER®](#) - Service.

5 Operation

ATTENTION

Appliance damages



If the appliance has been tilted for cleaning purposes, keep it in a vertical position for some time, so that the coolant can flow back into its initial position. Wait at least for about 2 hours before you put the appliance into operation.

The mobile bain marie must be checked for external visible damages and defects before each operation. Before the appliance is put into operation the cooling well must be clean and dry.

5.1 Arrangement and Function of the Operating Elements

The operating elements of the Mobile bain marie are attached to the side of the cooling element below the cooling well.

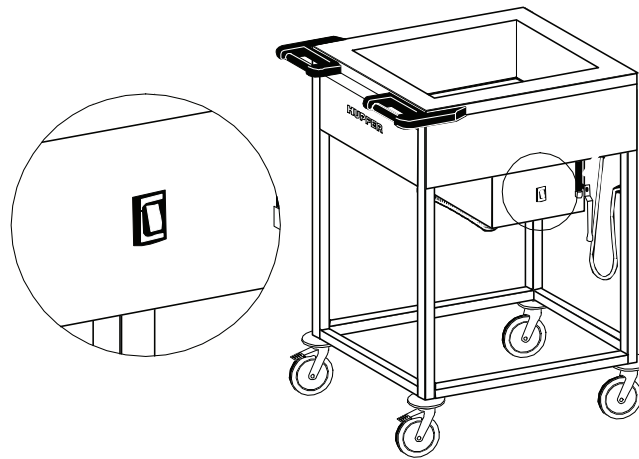


Figure 3 Operating elements (SPA/K-2DW)

5.2 Operation

ATTENTION

Contamination by germs



Microorganisms from the air may get into the GN containers and contaminate stored food.

Always cover the food in GN containers with suitable lids immediately after the food has been prepared in order to avoid contamination by germs.

NOTE

Automatic defrosting function

When the appliance is in operation, cooling operates fully automatically in the temperature range preset at the factory. Every 12 hours, the automatic defrosting function is activated for approx. 15 to 30 minutes.

In the case of severe loading, e.g. introduction of warm, uncovered or moist foods, increased formation of ice and bloom may occur.

In such cases disconnect the appliance from the power supply and defrost it manually. Never use sharp-edged items to remove ice and bloom from the walls of the cooling well.

NOTE	Storage temperatures Before the foods are served the adherence to the prescribed storage temperatures must be checked and demonstrated with suitable measuring instruments (thermometers).
NOTE	Covering the cooling well During operation the cooling well should be covered in order to prevent moisture from the air condensing on the walls of the cooling well.
NOTE	Drying the cooling well If the ambient air is humid and warm, the walls of the cooling well should be wiped dry at regular intervals when serving packaged individual products.

Switching on

- Place the lid in order to avoid condensation of moisture from the air.
- Insert the appliance plug into a suitable socket and switch on the appliance with the On/Off switch. The operating indicator integrated in the switch lights up, the appliance is cooling at maximum power.

Loading

- Insert the filled Gastronorm containers.
GN 2/1 and GN 1/1 containers can be put into the cooling well without further action. When using smaller Gastronorm containers, support bars must be used in order to ensure sealing with the well rim.
Optimal utilisation of the volume is achieved with the use of the deepest possible containers.
- Alternatively, insert individually packaged products.
- Place the lid.

Moving

- Switch off the appliance with the On / Off switch.
- Pull out the mains plug and insert it into the plug park provided.
- Release the total brakes.
- Grip the mobile bain marie by the push bars and move it to the destination.
- When you got to the destination, apply both total brakes and make sure they are locked and the appliance is secured against unintended movement.
- Reconnect the appliance to the mains and switch it on with the On/Off switch.

5.3 Measures at the End of Operation

Switching the mobile bain marie off

- Apply both total brakes, make sure they are locked and the appliance is secured against unintended movement.
- Switch off the appliance with the On / Off switch.
- Pull out the mains plug and insert it into the plug park provided.
- Remove the inserted Gastronorm containers.
- Remove the support bars if available.

Draining off the water

NOTE	Opening the water drain tap
	Never turn off or on the water drain taps with a tool. If the water drain tap is stiff, use lubricants that are harmless to health or parting agents (according to USDA-H1).

NOTE	Draining off the water
	Only open the water drain taps directly above an on-site drain duct or a drain at the bottom. If you have put a shelf into the appliance, use a drain container with a sufficient volume or a drain extension tube.

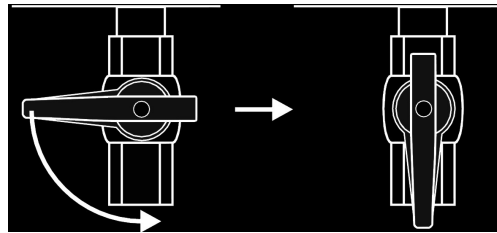


Figure 4 Opening the water drain tap

- Open the water drain taps.
- Drain off the water from the cooling well.

Using the drain extension tube

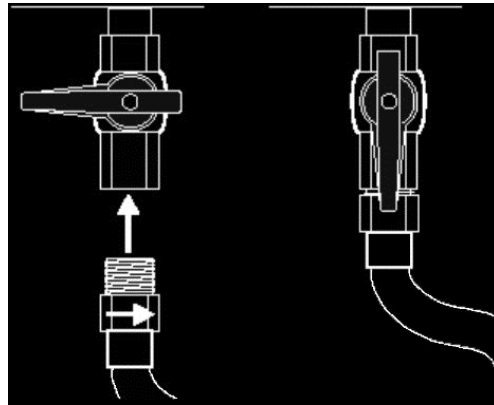



Figure 5 Screwing on the drain extension tube

- Screw the male thread of the drain extension tube to the end fitting of the water drain tap.
- Hold the end of the drain extension tube over a drain.
- Open the water drain tap.
- Drain off the water from the cooling well.

6 Fault Detection and Troubleshooting

6.1 Safety Measures

DANGER	Hazardous electrical voltage
	<p>The electrical voltage may be considerably dangerous to limb and life of persons and lead to injuries.</p> <p>Before looking for faults, switch off the appliance at the mains. Switch off the appliance with the On / Off switch. Pull out the mains plug and hung it on the plug holder provided.</p>

6.2 Notes on Troubleshooting

Please contact our service partners in case of malfunction and complaints within the warranty period. Even after the warranty period is expired you can have necessary repair work done by our service partners and certified electricians.

Service work should only be carried out by authorised specialists. In the event of after-sales service and when ordering spare parts specify the data given in the rating plate.

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

In the event of after-sales service and when ordering spare parts, always specify the data and corresponding part number indicated on the rating plate.

Regular inspection and maintenance of the appliance prevent disruptions to operation and ensure safety. Inspection and maintenance intervals depend on the use of the appliance. Consult your dealer's after-sales service department.

6.3 Fault and Action Table

Fault	Possible cause	Action
Running noise of swivel casters	Defective caster bearings	Replace the swivel casters.
	Sticky surface of the casters	Clean the swivel casters with water.
Appliance is not cold, indicator light is not on	The mains plug is not inserted	Insert the mains plug
	Defective building fuses	Check fuse and repair, if necessary
	Defective On / Off switch	Switch off the appliance at the mains, have it checked and repaired by authorised specialist staff, if necessary
	Defective connecting lead or mains plug	Switch off the appliance at the mains, have it checked and repaired by authorised specialist staff, if necessary
Appliance is not cold, indicator light is on	Defective cooling element	Switch off the appliance at the mains, have it checked and repaired by authorised specialist staff, if necessary
	Coolant circuit leaky	Switch off the appliance at the mains, have it checked and repaired by authorised specialist staff, if necessary
	Defective cooling element	Switch off the appliance at the mains, have it checked and repaired by authorised specialist staff, if necessary

Fault	Possible cause	Action
Appliance is cold, indicator light is not on	Defective indicator light	Switch off the appliance at the mains, have it checked and repaired by authorised specialist staff, if necessary
Formation of bloom and ice on the walls of the cooling well, reduced cooling power	Introduction of too warm, uncovered or too moist food	Disconnect the appliance from the power supply and clean the walls of the well with warm water.
Coolant spills	Ambient air too warm	The ambient temperatures must be between +50 and +89.6°F (+10 and +32 °C).
	Defective cooling conduit	Switch off the appliance and call a technician

7 Cleaning and Care

7.1 Safety Measures

DANGER

Hazardous electrical voltage



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

Before looking for faults, switch off the appliance at the mains. Switch off the appliance with the On / Off switch. Pull out the mains plug and hung it on the plug holder provided.

ATTENTION

Do not clean with running water



The appliance should not be cleaned with running water, steam-jet or high-pressure washers.

The appliance must be taken out of operation and switched off at the mains beforehand in any area where steam-jet or high-pressure washers are to be used.

7.2 Hygiene Measures

The correct behaviour of the operating staff is decisive for optimal hygiene.

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

Stick a waterproof plaster to cover wounds on the hands and arms.

Never sneeze or cough on clean crockery or meals.

7.3 Cleaning and Care

If the mobile bain marie is handled with care, cleaned and maintained on a regular basis, it does not require any additional care measures.

The cooling wells should be cleaned regularly after every use and the mobile bain-marie at the latest every 25 operating hours to ensure a hygienically perfect operation.

To clean thoroughly and quickly, wipe the Mobile bain marie, including the cooling well, with a soft cloth. Use for cleaning a soft cleaning cloth or an uncoated sponge. Use degreasing liquid cleansers that are approved for food industry. Never use high-pressure cleaner, chloride-containing cleaning agents, abrasive cleaning powder or other dry cleaning agents, steel wool, steel sponges and/or sharp-edged items.

You can regrease the water drain taps with lubricating grease approved for use in the food industry to maintain tightness and ease of movement.

To clean the Mobile bain marie, proceed as follows:

- Switch off the appliance. Switch off the appliance with the On/Off switch, pull out the mains plug and insert it into the plug park provided.
- Drain off the cooling well, if necessary.
- Wipe the cooling well and descale if required.
- Wipe the exterior panelling of the appliance.

Table of care measures

Cleaning and care measures	Action	daily	monthly	annually	if required
Cooling well	clean	x			
Cooling well	descale				x
Exterior panelling of the Mobile bain marie	clean	x			
Swivel casters	lubricate				x
Water drain taps	lubricate				x
Connecting lead: mechanical damages and obsolescence	control			x	
Mains plug: mechanical damages and obsolescence	control			x	

7.4 Special Care Instructions

The resistance to corrosion of stainless steels is based on a passive layer which is formed on the surface when oxygen is admitted. The oxygen in the air is sufficient for the formation of the passive layer, so that faults or damage to the passive layer can be remedied again automatically by mechanical action.

The passive layer develops or reforms more quickly when the steel comes into contact with flowing water containing oxygen. The passive layer can be chemically damaged or disrupted by agents having a reducing (oxygen-consuming) action when the steel comes into contact with them in concentrated form or at high temperatures.

Such aggressive substances are for example:

- 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 the handling of appliances made of "refined stainless steel":

- Always keep the surface of appliances made from stainless steel clean and accessible to the air.
- Use cleaning agents suitable for stainless steel. No bleaching and chloride-containing cleaning agents should be used.
- Remove layers of lime scale, grease, starch and egg-white daily by cleaning. Corrosion can occur underneath these layers due to lack of air admission.
- After each cleaning operation remove all cleaning agent residues by wiping thoroughly. Afterwards, the surface should be thoroughly dried.
- Do not bring parts made from stainless steel into contact with concentrated acids, seasonings, salts etc. for longer than is absolutely necessary. Acid fumes which generate during cleaning of tiles also promote the corrosion of "refined stainless steel".

- Avoid damaging the surface of the stainless steel, particularly by metals other than stainless steel.
- Residues of extraneous metals produce extremely small amounts of chemical elements which can cause corrosion. In any case, contact with iron and steel should be avoided because that leads to extraneous rust. If stainless steel comes into contact with iron (steel wool, steel particles from pipes, water containing iron), this can be a trigger for corrosion. Therefore, for mechanical cleaning use exclusively refined steel wool or brushes with natural, plastics or refined steel bristles. Steel wool or brushes with unalloyed steel lead to extraneous rust due to abrasion.

8 Spare Parts and Accessories

8.1 Introduction

Service work should only be carried out by authorised specialists.

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

In the event of after-sales service and when ordering spare parts specify always the data and corresponding part number given in the rating plate.

Always give the order number and corresponding part number when ordering replacement parts. The order number is given on the rating plate of the Mobile bain marie.

Always stockpile a full set of replacement parts as a reserve or make a maintenance contract with a specialised dealer to avoid standstill times.

8.2 Spare Parts and Accessories List

SPA/K-2DW | SPA/K-3DW

Spare part, part number	Item designation	Type	Qty
91198397	Reducer	3/4"-1/2", chromed brass	1
4034048	OBO Quick clip	Plastic	1
4034026	Stopcock	1/2"	1
01010963	Push bar	Plastic, black	1
4001648	Refrigeration system with cooling well	for SPA/K-2DW	1
4001647	Refrigeration system with cooling well	for SPA/K-3DW	1
4002006	Adapter for caster fixing	Plastic, black	1
014000405	Swivel caster without total brake	Plastic, Ø 125	1
01400406	Swivel caster with total brake	Plastic, Ø 125	1
014002111	Protection plates	Ø 100, black, content 4 pieces	1
91164775	Curly lead	black	1