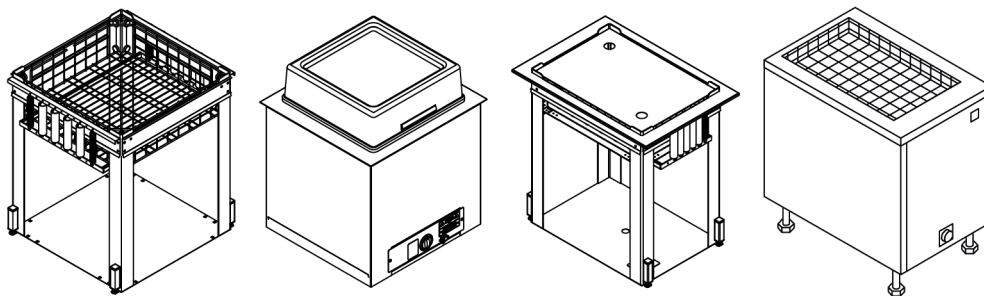
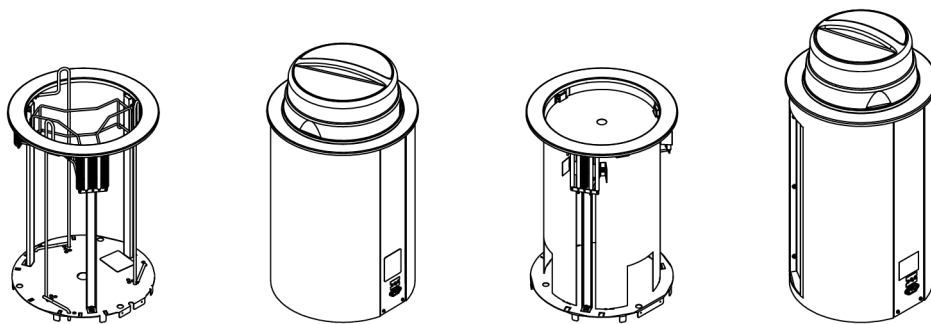


HUPFER

Operating instructions



Incounter stacking equipment

For plates, cups, baskets, trays or universal

Read the instructions prior to performing any task!

Manufacturer information

Hupfer Metallwerke GmbH & Co. KG
Dieselstraße 20
48653 Coesfeld
Telephone: + 49 (0) 2541 805-0
Email: info@hupfer.de
Internet: www.hupfer.com

Document information

Last update: 19.09.2022
Index: 2, en_GB

All texts, illustrations and graphic designs are protected by copyright. Reproduction, distribution and issuing are permitted for internal company purposes only. © Hupfer Metallwerke GmbH & Co. KG, Coesfeld 2022

Table of contents

1	General information.....	5
1.1	Product information.....	5
1.2	Target group.....	5
1.3	Symbols.....	5
1.4	Signs.....	6
2	Product description.....	6
2.1	Function.....	6
2.2	Overview.....	7
2.3	Equipment features.....	9
2.4	Technical data.....	9
2.5	Rating plate.....	11
3	Safety information.....	12
3.1	Intended use.....	12
3.2	Improper use.....	12
3.3	Safety instructions.....	12
3.3.1	General information.....	12
3.3.2	Transport.....	13
3.3.3	Operation and use.....	13
3.3.4	Cleaning.....	13
3.3.5	Maintenance.....	13
3.3.6	Safety devices.....	14
4	Transport.....	14
4.1	Delivery.....	14
4.2	In-house transport.....	14
4.3	Lifting.....	14
5	Assembly.....	14
6	Commissioning.....	15
7	Operation.....	20
7.1	Getting to know the user interface.....	20
7.2	Operating the transport cart.....	20
7.3	Loading with items.....	21
7.4	Heating the items.....	21

7.5	Dispensing items.....	22
7.6	Finishing operation.....	22
8	Care and cleaning.....	22
8.1	Cleaning intervals.....	22
8.2	Permissible cleaning types.....	23
8.3	Permissible cleaning agents.....	24
8.4	Material compatibility.....	25
8.5	Manual cleaning.....	25
8.6	Disinfecting.....	25
9	Maintenance and repair.....	26
9.1	Maintenance intervals.....	26
9.2	Troubleshooting.....	27
9.3	Repairs and spare parts.....	27
9.4	Recommissioning.....	28
10	Disposal.....	28

1 General information

1.1 Product information

Product name	Incounter stacking equipment
Product type	<ul style="list-style-type: none">■ EBR-TE – for plates■ EBT-TE/H – for plates, heated■ EBT-TAS – for cups■ EBT-TAS/H – for cups, heated■ EBS-KO – for baskets■ EBS-KO/H – for baskets, heated■ EBST-TAB – for trays■ EBS-UST – universal

1.2 Target group

These operating instructions are intended for the following groups of people who perform the listed activities with or on the product:

Electrician

- Servicing or repairing the electrical installation within the product
- Rectifying electrical faults

Maintenance engineer

- Maintenance work on mechanical systems or trained activities on the electrical, cooling or heating systems
- Simple repairs
- Appropriately trained employees of the customer or an employee of the manufacturer

Operating staff

- Standard operating steps
- Rectifying faults as described in the “Troubleshooting” section
- Cleaning

Operator

The operator or an authorised person must carry out the work.

- Check the condition of the entire unit
- Determine maintenance requirements

1.3 Symbols



“Danger” indicates a hazardous situation that will result directly in death or serious injury.

 **WARNING**

“Warning” indicates a hazardous situation that may result in serious injury.

 **CAUTION**

“Caution” indicates a potentially hazardous situation that may result in minor to moderate injury.

 **NOTICE**

“Notice” indicates a situation that may result in damage to property.

“Notes” give tips on the correct use of the product.



1.4 Signs



Hand injury warning

This warning symbol is attached at points on the product where there is a risk of hand injuries.

2 Product description

2.1 Function

The incounter stacking equipment is designed to hold and dispense the respective approved items.

The incounter stacking equipment is designed for installation in a mobile bain marie.

The items are placed on the guide basket of the equipment. The guide basket is spring-loaded and sinks as the load increases so that the top of the stacked items remains at a constant height.

2.2 Overview

Incounter plate dispenser

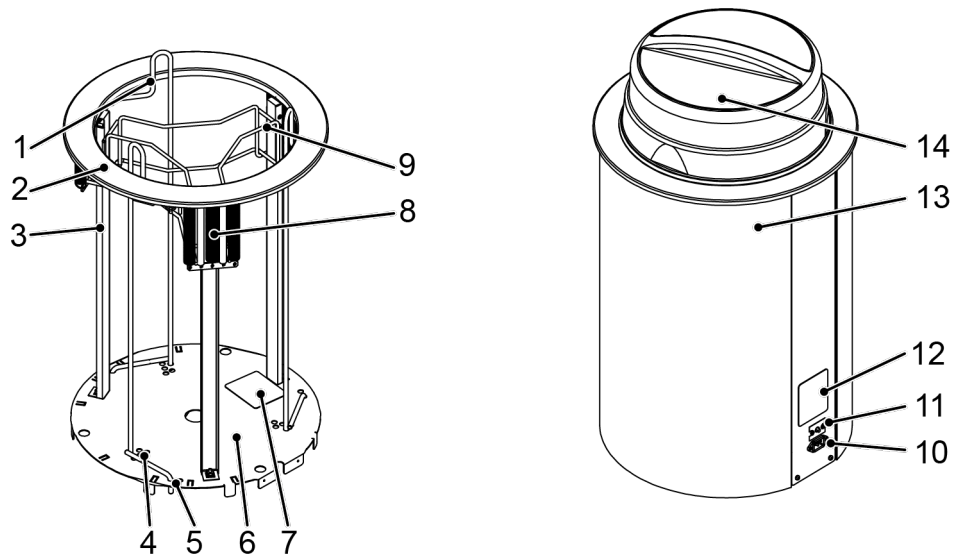


Fig. 1: example of an incounter plate dispenser, standard version and heatable

- | | | | |
|---|-------------------------------|----|---------------------------|
| 1 | Load guide | 8 | Tension spring |
| 2 | Panel | 9 | Guide basket |
| 3 | Platform guide | 10 | Power supply ¹ |
| 4 | Position holes for load guide | 11 | Thermostat ¹ |
| 5 | Position holes for load guide | 12 | Rating plate |
| 6 | Base plate | 13 | Sheathing ¹ |
| 7 | Rating plate | 14 | Lid ¹ |

¹ only for heatable equipment

Incounter crockery dispenser

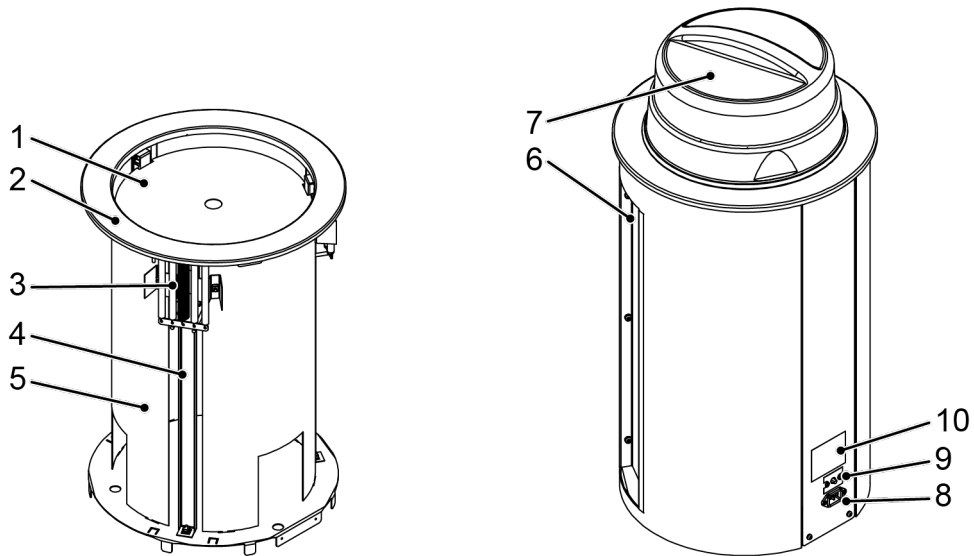


Fig. 2: example of a crockery dispenser, standard version and heatable

- | | |
|------------------|-----------------------------|
| 1 Guide basket | 6 Heating element |
| 2 Panel | 7 Lid |
| 3 Tension spring | 8 Power supply ¹ |
| 4 Platform guide | 9 Thermostat ¹ |
| 5 Load guide | 10 Rating plate |

¹ only for heatable equipment

Incounter basket dispenser

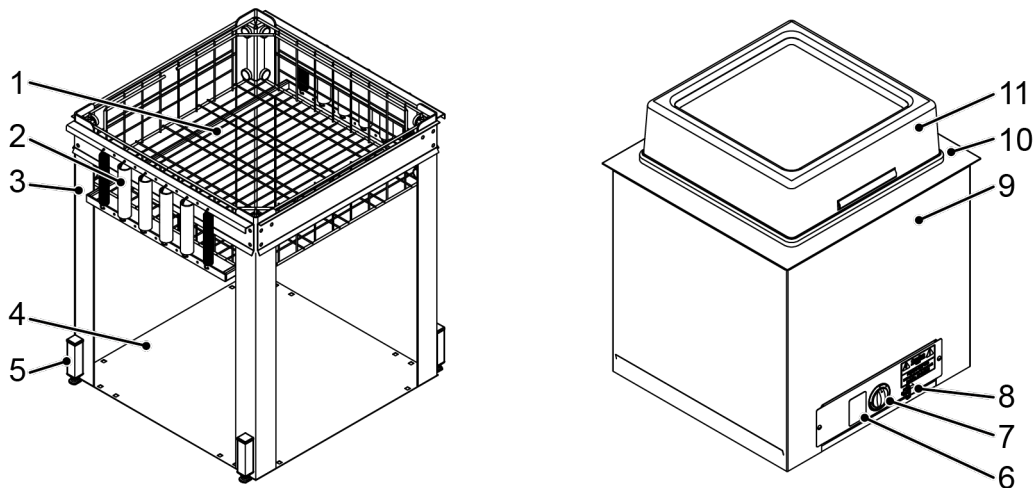


Fig. 3: example of a basket dispenser, standard version and heatable

- | | |
|---------------------------|-----------------------------|
| 1 Guide basket | 7 Thermostat ¹ |
| 2 Tension spring | 8 Power supply ¹ |
| 3 Platform guide | 9 Sheathing ¹ |
| 4 Base plate | 10 Panel |
| 5 Feet, height adjustable | 11 Lid ¹ |
| 6 Rating plate | |

¹ only for heated equipment

Incounter tray dispenser and universal dispenser

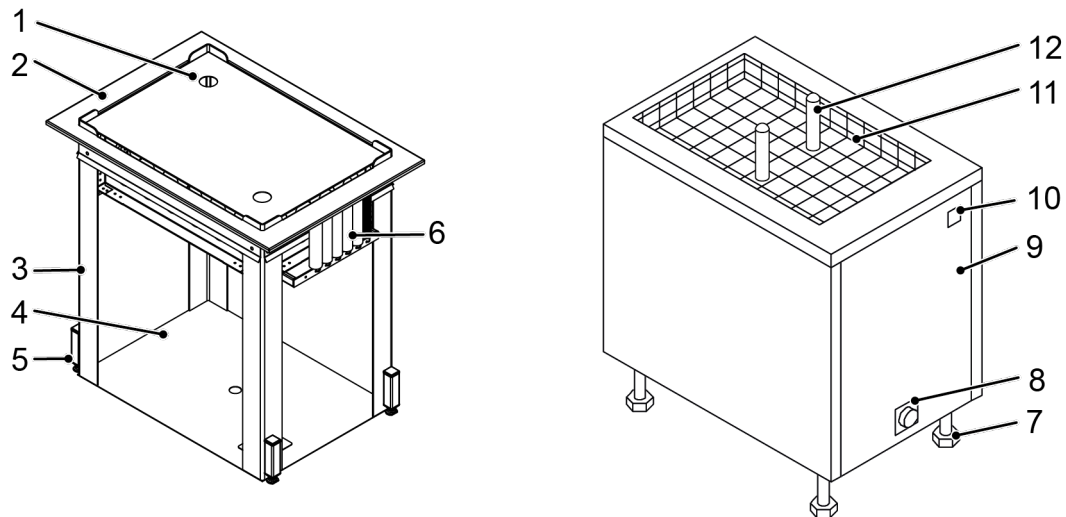


Fig. 4: Example of a tray dispenser and an incounter universal dispenser, heatable

- 1 Guide basket
- 2 Panel
- 3 Platform guide
- 4 Base plate
- 5 Feet, height adjustable
- 6 Tension spring
- 7 Feet, height adjustable
- 8 Thermostat ¹, power supply ¹
- 9 Sheathing ¹
- 10 Rating plate
- 11 Guide basket ²

¹ only for heatable equipment

² only for incounter universal dispensers

2.3 Equipment features

- Housing Made from stainless steel.
- Guide basket Spring-loaded

2.4 Technical data

Product name		Plate dispenser	Plate dispenser	Plate dispenser	Plate dispenser	Plate dispenser
Type		EBR-TE 19-26	EBR-TE/H 19-26	EBR-TE/H 2/19-26	EBR-TE 27-33	EBR-TE/H 18-33
Product code		0161830	0161840	0161850	0162250	0162251
Element		--	Tubular - heating ele- ment	Tubular - heating ele- ment	--	Tubular - heating ele- ment
Dimensions and total weight						
Width ¹	mm	400	400	435	470	470
Depth ¹	mm	400	400	626	470	470
Height ¹	mm	650	650	650	650	650
Total weight ¹	kg	6.5	13.5	26	6.6	16
Maximum load	kg	55	55	130	60	60

Product name		Plate dispenser	Plate dispenser	Plate dispenser	Plate dispenser	Plate dispenser
Lifting height ¹	mm	495	495	457	495	495
Permitted items	--	Plates Ø190 to 260 mm	Plates Ø190 to 260 mm	Plates Ø190 to 260 mm	Plates Ø270 to 330 mm	Plates Ø180 to 330 mm
Electrical connection						
Voltage	V	--	220-230	220-230	--	220-230
Electrical connection cable	W	--	600	1000	--	600
Rated current	A	--	2.6	4.3	--	2.6
Mains frequency	Hz	--	50/60	50/60	--	50/60
Protection class	IP	--	X4	X4	--	X4
Control range	°C	--	+20 bis +85	+30 bis +115	--	+20 bis +85

¹ The figures are approximate values. Deviations are possible.

Product name		Crockery dispensers	Crockery dispensers	Crockery dispensers	Crockery dispensers
Type		EBR-TAS 100-150	EBR-TAS 70120	EBR-TAS/H 100-150	EBR-TAS/H 70-120
Product code		0162540	0162541	0162542	0162543
Element		--	--	Tubular heating - element	Tubular heating - element

Dimensions and total weight

Width ¹	mm	470	400	470	400
Depth ¹	mm	470	400	470	400
Height ¹	mm	650	650	650	650
Total weight ¹	kg	9.3	11	19	19.5
Maximum load	kg	46	60	46	46
Lifting height ¹	mm	490	490	490	490
Permitted items	--	Crockery items Ø100 to 150 mm	Crockery items Ø70 to 120 mm	Crockery items Ø100 to 150 mm	Crockery items Ø70 to 120 mm

Electrical connection

Voltage	V	--	--	220-230	220-230
Electrical connection cable	W	--	--	600	600
Rated current	A	--	--	2.6	2.6
Mains frequency	Hz	--	--	50/60	50/60
Protection class	IP	--	--	X4	X4
Control range	°C	--	--	+20 bis +85	+20 bis +85

¹ The figures are approximate values. Deviations are possible.

Product name		Basket dispensers	Basket dispensers	Tray dispensers	Incounter universal dispensers
Type		EBS-KO/H 5050	EBS-KO 5050	EBST-TAB 5337	EBS-UST/H 57-28
Product code		0116153	0118179	0119549	0163006

Product name		Basket dis- pensers	Basket dis- pensers	Tray dis- pensers	Incounter uni- versal dis- pensers
Element		Tubular heating - -- element		--	Tubular heating - element
Dimensions and total weight					
Width ¹	mm	620	546	660	723
Depth ¹	mm	620	575	460	453
Height ¹	mm	655	655	655	760
Total weight ¹	kg	41	16.9	19.7	65
Maximum load	kg	120	120	100	120
Lifting height ¹	mm	465	475	470	--
Permitted items	--	Crockery bas- kets 500 × 500 mm	Crockery bas- kets 500 × 500 mm	Trays 530 × 370 mm	Platform 570 × 280 mm
Electrical connection					
Voltage	V	220-230	--	--	220-230
Electrical con- nection cable	W	2000	--	--	1000
Rated current	A	8.7	--	--	4.3
Mains frequency	Hz	50/60	--	--	50/60
Protection class	IP	X4	--	--	X4
Control range	°C	+20 bis +85	--	--	+30 bis +110

¹ The figures are approximate values. Deviations are possible.

2.5 Rating plate

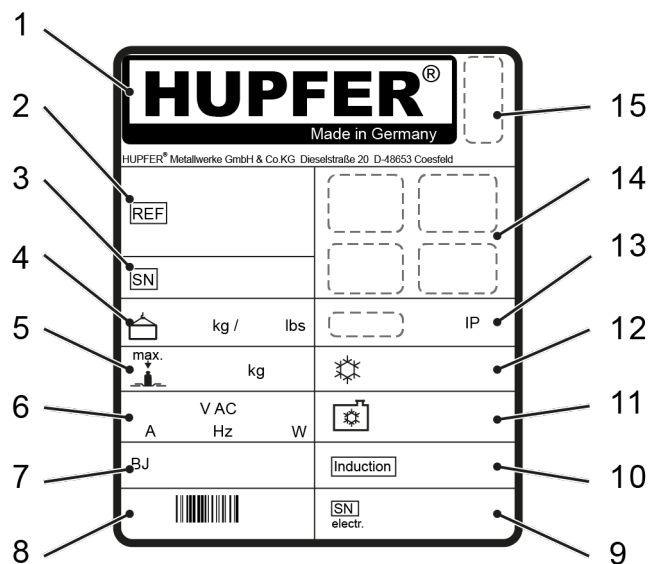


Fig. 5: Rating plate

- 1 Manufacturer and address
- 2 Type designation and product code
- 3 Order number
- 4 Total weight

5	Payload, total	11	Refrigerant
6	Electrical connection	12	Refrigeration capacity
7	Model year	13	Protection code
8	Product code as barcode	14	Certification mark/CE label if available
9	Electrical serial number	15	Disposal of old appliances
10	Induction frequency		

3 Safety information

3.1 Intended use

The stacking equipment is used to hold and dispense approved items. Heated stacking equipment can heat the items.

Intended use includes following the prescribed procedures, complying with the given specifications, and using the genuine accessories that are provided or additionally available. Any other use of the equipment is considered improper use.

3.2 Improper use

Loading the unit with items other than those it is designed for is improper use and prohibited. It must not be loaded beyond its stated capacity.

Persons must not sit or stand on or in the equipment.

In the case of improper use, the manufacturer and suppliers shall assume no liability for resulting damage. Damage caused by improper use shall result in loss of liability and of guarantee claims.

3.3 Safety instructions

3.3.1 General information

The equipment may only be used in a technically sound condition, taking risks and safety into consideration, for its intended purpose and in accordance with the operating instructions.

All operating elements and controls must be in a technically sound condition and functioning reliably.

Before each use, the equipment must be checked for any visibly apparent damage and defects. If damage occurs, immediately notify those responsible and take the equipment out of use.

Changes or conversions are only permitted after consultation and written consent from the manufacturer.

3.3.2 Transport

If the equipment needs to be lifted, only use lifting gear and load-bearing equipment approved for the total weight of the equipment.

Only use transport vehicles that are approved for the total weight of the equipment.

The equipment does not have any attachment points for eyelets or similar lifting aids.

3.3.3 Operation and use

There are springs in the stacking compartment of the equipment. If the springs are tensioned, the stacking compartment presents a risk of injury. Do not reach into the stacking compartment. Do not tension the guide basket manually. Do not overload the equipment. Do not tension any loads with the lid.

Plate dispensers must be adjusted to the crockery items being loaded into the plate dispenser to prevent crockery breakage and hazards.

The stacking compartment of the equipment presents a risk of burns due to the heating elements. Do not reach into the stacking compartment. The stacking compartment must be allowed to cool down for at least 30 minutes, disconnected from the power supply and emptied before it is permissible to reach into the plate dispenser.

The heating of polymer items presents a fire risk. Check heat resistance before loading the equipment. Only load heatable equipment with items that are heat-resistant within the adjustable temperatures.

Items can reach temperatures of $> 65^{\circ}\text{C}$ in heatable stacking equipment. Hot items present a risk of burns. Check the temperature before unloading. Wear heat insulating protective gloves and warn recipients.

3.3.4 Cleaning

The transport cart must not be cleaned with high-pressure or steam cleaners.

3.3.5 Maintenance

Troubleshooting may only be carried out by maintenance technicians.

Work on electrical equipment may only be carried out by electricians. The work must be carried out in compliance with the rules of electrical engineering.

Work on the refrigeration system may only be carried out by refrigeration specialists. The work must be carried out in compliance with the rules of refrigeration engineering.

3.3.6 Safety devices

The side panel prevents access to tension springs and heating elements. In its installed state, access to tension springs and electrical components from the outside must be prevented by structural means. Access from the outside is only permitted for maintenance purposes.

4 Transport

4.1 Delivery

Delivery is performed by a transport company, whose specialists are responsible for securing the load during transport.

4.2 In-house transport

The equipment is permanently installed at the place of use in a counter or similar structure.

When transporting the entire structure, it must be ensured that the necessary supports within the structure cannot break away or warp.

4.3 Lifting

The equipment does not have any attachment points for eyelets or similar lifting aids.

5 Assembly

Installing the equipment



Injuries caused by sharp edges

The mounting frame and base of the product, as well as the surface, may have sharp edges.

- Wear suitable protective gloves when transporting and installing the product.
-

The stacking equipment is permanently installed in a counter with a suitable substructure for support. The switches are installed separately in the same counter. The counter must have a lockable inspection opening that allows access to the mains connection and for cleaning.

Once assembly is complete, the warning labels supplied with the product must be affixed to the counter in a clearly visible position in the immediate vicinity of the product.

Information on the layout of cut-outs and supports and the necessary assembly work can be found in the separate assembly instructions.

Electrical connection



Depending on the equipment and the installation position, the thermostat may not be accessible during operation.

- Adjust the thermostat during installation.
-

The electrical connection is made via a connection at the installation site. The switches are installed separately in the same counter. For information on the layout of the connection and connection diagrams, please refer to the separate assembly instructions.

The connection must be made by a trained electrician.

6 Commissioning

! NOTICE

Instructing operating staff

Before commissioning, operating staff must be instructed how to operate the transport cart correctly.



Help protect our environment. Separate the packaging materials and recycle them. Dispose of:

- Packaging and foils in the (yellow) recycling bin.
 - Cardboard boxes and paper in the paper recycling bin.
-

Clean the equipment thoroughly before first use (see cleaning instructions).

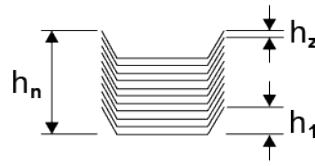
Check the functions of the equipment:

- Functionality of all mechanical parts
- Functionality of the locks

Calculating the capacity

It is possible to calculate how many items stacking equipment can hold.

Step 1 The intermediate stack height h_z of the items can be calculated using the following formula. Measure any missing values.



Formula $h_z = \text{intermediate stack height } h_z = ((h_n - h_1) / (n - 1))$
 $h_n = \text{height between } n \text{ items}$
 $h_1 = \text{height of 1 item}$

Example $h_n = 120 \text{ mm}$ $h_z = ((120 - 20) / (11 - 1)) = 10$
 $h_1 = 20 \text{ mm}$

Step 2 The capacity of the stacking equipment can be calculated using the following formula

Formula $h_z = \text{intermediate stack height } \text{Capacity} = [((h_{st} - h_1) / h_z) + 1] \times n$
 $h_{st} = \text{lifting height of the platform for baskets or trays}$
 $h_1 = \text{height of 1 item}$
 $n = \text{number of items on the platform for baskets or trays (not stacked)}$

Example $h_{st} = 458 \text{ mm}$ $\text{Capacity} = [((458 - 20) / 10) + 1] \times 3$
 $h_1 = 20 \text{ mm}$ $\text{Capacity} = 132 \text{ items}$
 $n = 3$ (44.8 was rounded down to 44)

Adjusting the tension springs

The tension springs in the stacking equipment ensure that the items remain at a constant height. Correctly adjusted tension springs offer the following advantages.

- Items can be removed ergonomically, always from the same height.
- Load guides protect the items.

The number of springs hooked on must be adjusted to the total weight of the items.

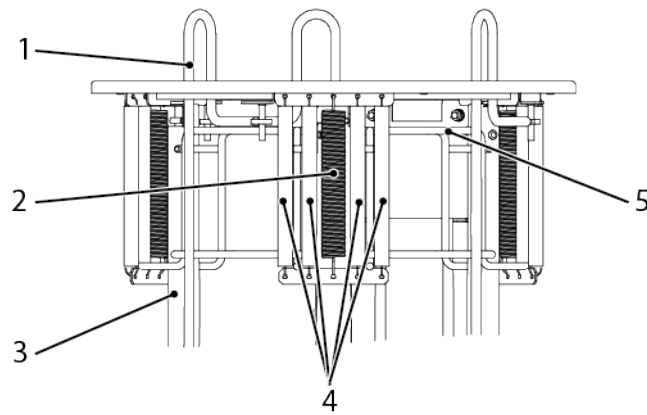


Fig. 6: Example view of the guide basket

- 1 Load guide
- 2 Base spring
- 3 Platform guide
- 4 Adjustment springs
- 5 Guide basket

Checking the adjustment

1. Place 20 items on the guide basket.
 - ➔ The guide basket lowers.
2. Measure the distance between the upper edge of the crockery items and the upper edge of the load guide.

The items must always be lower than the upper edge of the load guide.

3. Adjust the tension springs accordingly.

Distance	< 30 mm	30 – 50 mm	> 50 mm
Adjustment	Unhook the tension springs	Correctly adjusted	Hook on the tension springs

Adjusting the tension springs

WARNING

Risk of burns

The hot stacking compartment presents a risk of burns.

- Disconnect the equipment from the power supply.
- Allow the equipment to cool down without the lid before making any adjustments.

 **CAUTION****Risk of injury**


Sharp edges and tension springs may cause injury when hooking and unhooking the tension springs.

- Wear protective gloves.

 **NOTICE****Damage to the guide elements**

The tension springs must be hooked on symmetrically. If the tension springs are only hooked on one side, the platform for baskets or trays will be damaged.

- Hook or unhook the tension springs equally on the left and right.


1.  Remove all items from the stacking compartment.


- ➔ The guide basket is in the initial position.



Always unhook the tension springs from the bottom. Unused springs can be left hooked in at the top. Hooking in or unhooking adjustment springs changes the spring tension slightly. Hooking or unhooking base springs changes the spring tension significantly. If possible, leave the base spring hooked in.

2.  Hook or unhook the tension springs equally on the left and right.

3.  Check the adjustment again.

4.  Repeat the steps until the tension springs are correctly adjusted.

- ➔ The tension springs are correctly adjusted.
- ➔ The top edge of the items is 30 – 50 mm from the top edge of the load guide.

Adjusting the load guide **WARNING****Risk of burns**

The hot stacking compartment presents a risk of burns.

- Disconnect the equipment from the power supply.
- Allow the equipment to cool down without the lid before making any adjustments.

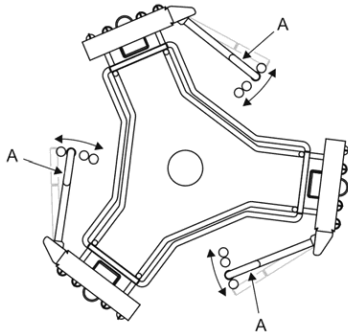


The load guides can only be adjusted on plate dispensers and universal stacking equipment.

Adjusting plate dispenser position A

The load guide must be adjusted to the items to prevent damage when the items are being dispensed. Leave max. 10 items on the guide basket during adjustment.

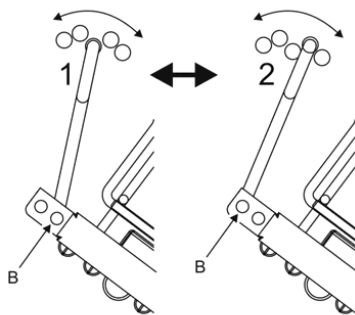
You can change the position of the load guide (A).



1. ➤ Lift the load guide.
 - ➔ The load guide can be moved freely.
2. ➤ Guide the load guide into a position hole on the base.
 - ➔ The load guide can be gripped securely by its side.

Adjusting plate dispenser position B

Depending on the design of the stacking compartment, the suspension of load guide (B) can also be changed. All position holes can be reached by changing the suspension.



1. ➤ Push the load guide upwards out of the hole.
 - ➔ The load guide can move freely.
2. ➤ Maintain the pressure and guide the load guide into the desired hole.
3. ➤ Repeat the step at the lower end of the wire.
 - ➔ The load guide sits in the same position at the top and bottom.

Adjusting the plate dispenser load guide

You can adjust the load guide to the desired items.

1. ➤ Remove all items from the stacking compartment.
2. ➤ Set the load guides to the outermost position.
 - ➔ The load guide is in the position for the largest permissible items.
3. ➤ Place 10 of the desired item centrally on the guide basket.
4. ➤ Set the load guide to the position closest to the items.
 - ➔ The items can be removed easily.
 - ➔ The items do not jam.
 - ➔ There is a small gap between the items and the load guides.

Adjusting the incounter universal dispenser

You can adjust the load guide to the desired items.

1. ➤ Remove all items from the stacking compartment.
2. ➤ Insert the guide rod into the desired hole.
3. ➤ Check whether the desired items fit in the position of the guide rod.
 - ➔ The items are resting on the guide basket.
 - ➔ The items have adequate space and do not jam.

7 Operation

7.1 Getting to know the user interface

7.2 Operating the transport cart

On/off switch

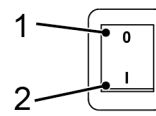


Fig. 7: On/off switch

- 1 Off position
- 2 On position

Thermostat

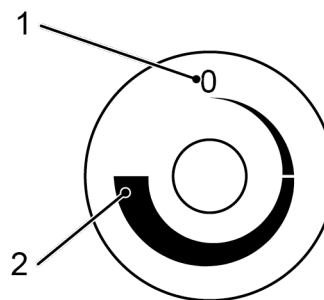


Fig. 8: Thermostat

- 1 Off position
- 2 Max. temperature position

Adjusting the thermostat



Depending on the equipment and the installation position, the thermostat may not be accessible during operation.

- Adjust the thermostat during installation.
-

For heatable devices, the temperature can be set on the thermostat.

Manual thermostats do not allow the temperature to be set to a precise degree. Where appropriate, check the temperature setting with a full load.

➤ Set the control to the desired position.

- ➔ You have set the thermostat.

7.3 Loading with items



CAUTION

Risk of injury from overloaded stacking compartment

Items fall out of overloaded stacking equipment. Plates break. Persons are injured.

- Do not load the guide basket any higher than the upper edge of the equipment or the load guide.
 - If the guide basket does not lower and it is not yet at full capacity, adjust the springs.
-



The lid protects items from environmental influences and reduces heat loss in the case of heatable equipment.

- Cover the items with a lid.
-

- Only load the guide basket within the permitted payload.
- Do not load the guide basket any higher than the upper edge of the equipment or the load guide.
- Place the items down flat from above.
- Load the guide basket evenly.





7.4 Heating the items



Depending on the equipment and the installation position, the thermostat may not be accessible during operation.

- Adjust the thermostat during installation.
-

Items can be heated in heatable stacking equipment.

1.  Load the unit with items.
2.  Cover the stacking compartment with the lid.
3.  Switch on the equipment with the on/off switch.
 - ➔ The switch lights up green.
4.  Allow the items to heat for at least 3 hours.
 - ➔ The items are fully heated to the specified temperature.




7.5 Dispensing items

WARNING




Risk of burns

The hot stacking compartment presents a risk of burns.

- Do not reach into the hot stacking compartment.
- Wear heat-insulating protective gloves.
- Allow the stacking compartment to cool down.

1.  Lift out the items.
2.  Load the guide basket evenly.
3.  Pay attention to children and untrained persons who are unaware of the dangers involved in handling the equipment.

7.6 Finishing operation







1.  Switch off the equipment.
2.  Cover the stacking compartment with the lid.
3.  Clean the equipment if necessary.

8 Care and cleaning

8.1 Cleaning intervals

Interval	Maintenance work
After each use and according to the in-house hygiene concept	Clean the stacking compartment and guide basket
As needed and according to the in-house hygiene concept	Disinfect the stacking compartment and guide basket

8.2 Permissible cleaning types

Cleaning type		Definition of the cleaning operation	Approval for Incounter stacking equipment
Manual cleaning	Dry	Cleaning with dry cleaning agents	
	Damp	Cleaning with a damp cloth and degreasing liquid cleaner	
	Wet	Cleaning with a wet sponge and degreasing liquid cleaner	
Water hose	Pressure \leq 8 bar	Cleaning with a spray jet and degreasing cleaning agents if required: <ul style="list-style-type: none"> ■ Do not spray into the bearings. 	
High-pressure/steam cleaning	High-pressure \leq 200 bar	Cleaning the surfaces: <ul style="list-style-type: none"> ■ max. 30-90 seconds ■ Do not spray into the bearings ■ Use a flat stream nozzle ■ Keep a distance of at least 30 cm 	
	Wet steam \leq 135° C	Cleaning the surfaces: <ul style="list-style-type: none"> ■ max. 30-90 seconds ■ Short exposure time for individual sections ■ Do not spray into the bearings 	

8.3 Permissible cleaning agents

! NOTICE

Incorrect cleaning agents

Incorrect treatment of the installed material surfaces will result in damage and corrosion.

- Only use cleaning agents approved for cleaning.
- Follow the instructions of the cleaning agent manufacturer.




Suitable cleaning agents



The manufacturer cannot assess the suitability of specific detergents or disinfectants.

- Check the notes on the cleaning agents or disinfectants to find out whether they are suitable for the materials of the transport cart.
- If in doubt, ask the manufacturer of the agent if it is suitable for the materials of the transport cart.

Cleaning agent	Approval
Degreasing agent	✓
■ Neutral liquid cleaner	
Salty cleaning agents	✗
■ Table salt	
■ Hydrochloric acid	
Sulphuric cleaning agents	✗
■ Sulphur dioxide	
■ Sulphuric acid	
Chlorinated cleaning agents	✗
■ Chlorine cleaner	
■ Sea water	
■ Bleach	
Ferrous material	✗
■ Water with iron content	
Low-oxygen cleaning agents	✗
■ Low-oxygen water	
■ CO ₂ atmosphere	
Neutral cleaning agents	✓
■ Neutral cleaning agents pH 7	
■ Slightly acidic cleaning agents pH 6 – 7	
■ Slightly alkaline cleaning agents pH 7 – 8	
Acidic cleaning agents pH 1 – 5	✗
■ Acids	






Cleaning agent	Approval
Alkaline cleaning agents pH 8 – 14	
<ul style="list-style-type: none"> ■ Alkalis 	
Abrasive cleaning agents	
<ul style="list-style-type: none"> ■ Scouring pad ■ Pot scrubber 	
Non-abrasive cleaning agents	
<ul style="list-style-type: none"> ■ Uncoated sponges ■ Soft cloths 	

8.4 Material compatibility

When selecting the cleaning agent, make sure it is compatible with the materials used.

Material	Components
Stainless steel	Stacking compartment, guide basket

8.5 Manual cleaning

1.  Clean the equipment after each use and according to the in-house hygiene concept.
2.  For wet cleaning, use a soft cloth or an uncoated sponge.
3.  Use degreasing liquid cleaners.
4.  Rinse so that all detergents and disinfectants are completely removed.
5.  Dry the interior and exterior surfaces after cleaning.

8.6 Disinfecting

All the surfaces can be disinfected with commercially available surface disinfectants.

NOTICE

Damage to property

High concentrations of disinfectant can cause corrosion damage.

- Follow the instructions of the disinfectant manufacturer.

9 Maintenance and repair

DANGER

Electrical hazard

Electricity is a serious hazard and can cause injury or even death.

- Before starting any cleaning and maintenance work, disconnect the transport cart from the mains.
- Disconnect the mains plug and put away the cable in its designated place until the next use.
- Do not clean the transport cart with steam cleaners or high-pressure cleaners.

WARNING

Risk of burns

The hot stacking compartment presents a risk of burns.

- Do not reach into the hot stacking compartment.
- Wear heat-insulating protective gloves.
- Allow the stacking compartment to cool down.

9.1 Maintenance intervals

Regularly check that the following components are functioning properly:

Interval	Maintenance work	Personnel
every six months	Carry out a visual inspection of the entire unit.	Operator

9.2 Troubleshooting

Troubleshooting

In the event of malfunctions and complaints within the guarantee period, contact our service partners. After the guarantee period has expired, have any necessary repair work carried out by our service partners or qualified electricians.

Fault description	Cause	Remedy	Personnel
Guide basket no longer lifts	Tension spring broken	Replace broken tension spring	Maintenance engineer
Guide basket has play	Screws loose	Check and retighten screws	Maintenance engineer
Heating power too low	Thermostat set too low	Increase the temperature on the thermostat	Operating staff
	Thermostat defective	Have the thermostat replaced by a qualified electrician.	Electrician
	Heating element defective	Have the heating element replaced by a qualified electrician.	Electrician
	Short circuit and leakage currents	Disconnect the equipment from the power supply; have the equipment checked by a qualified electrician.	Electrician
Heating power too high	Thermostat set too high	Reduce the temperature on the thermostat	Operating staff
	Thermostat defective	Have the thermostat replaced by a qualified electrician	Electrician
No heating power	Power supply interrupted	Plug in, have the power supply checked by a qualified electrician if necessary.	Operating staff
			Electrician

9.3 Repairs and spare parts

Spare parts and accessories are available from our customer service. Replace defective components with genuine spare parts. Only then can safe and reliable operation be guaranteed. When ordering spare parts or requesting customer service, always state the order number and the information on the rating plate. This information helps avoid follow-up queries and speeds up the process.

9.4 Recommissioning

The transport cart may only be used in a technically sound condition, for its intended use, and in accordance with the operating instructions. Check the transport cart for visible damage before each use. In the event of damage, inform the responsible departments immediately. Only operate transport carts in faultless technical order.

- Check the transport cart functions, especially the lock and cooling.
- Clean the transport cart thoroughly before putting it back into operation.

10 Disposal



Help protect our environment. Make sure that the materials are recycled.

- Have the equipment disassembled and disposed of by recycling companies. All the materials are recyclable.
 - Electrical components may only be removed by qualified electricians.
-