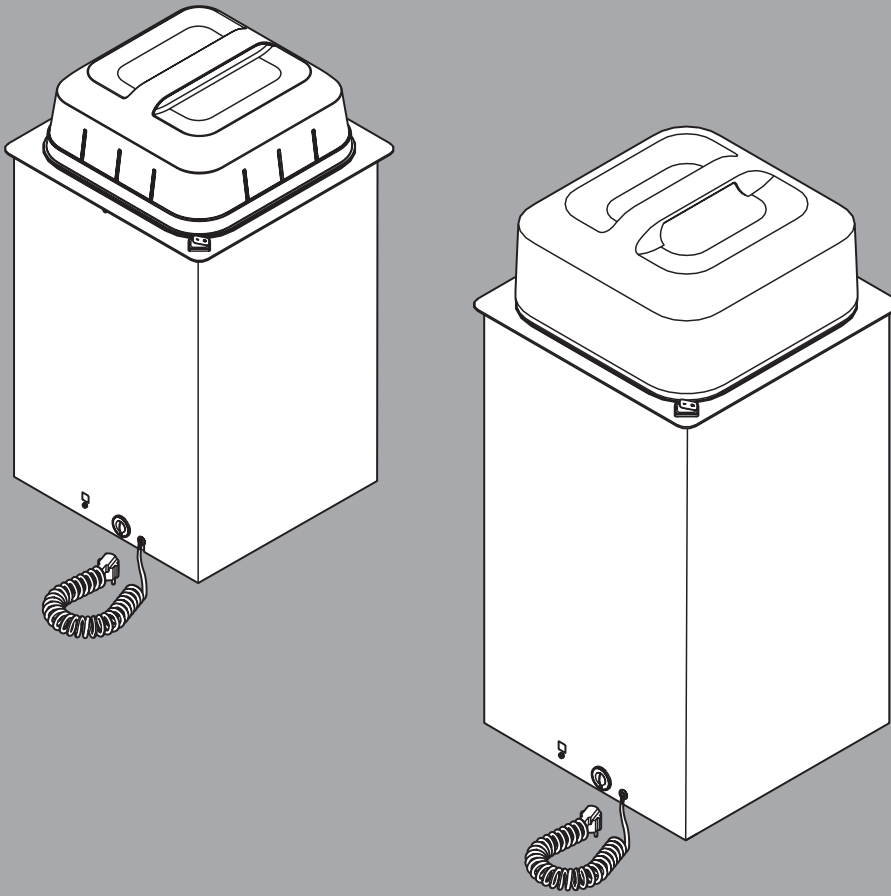




BUILT-IN PLATE DISPENSER TSE-H1 18-33 ET 684/800

Translation of the original operating instructions

General information

Copyright	These instructions are protected by copyright. None of this information may be reproduced, distributed, used to the advantage of our competitors, or made accessible to third parties either completely or in part.
Technical changes	Subject to modifications due to technical improvements.
Product documentation	Translation of the original operating instructions. Target group: operating personnel, kitchen directors.
Typographical conventions	 Important note on special features or special cases.  Explanatory information in chapters or sections containing instructions.  Cross reference to a chapter, section or external document.  Requirement which must be fulfilled before the subsequent steps can be carried out.  Action or activity which must be carried out.

Unit model XYZ

A section identified in this way applies only to a particular unit model or unit option.

Warnings



Signal word!

Type and source of danger

Possible consequences of non-compliance with warnings.

- Measures to avoid hazards and the consequences thereof.

The signal word (caution, warning, danger) indicates the level of danger.

Caution warns of possible minor bodily injury or damage to property.

Warning warns of possible serious bodily injury.

Danger warns of possible highly severe/fatal bodily injury.

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Built-in plate dispenser, heated **OPERATING INSTRUCTIONS**

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About this product

Scope of application The heated built-in plate dispenser is designed for the following applications:

- Stationary storage/stocking up of dry dishes
- Stationary provision/distribution of dishes
- Stationary heating and temperature maintenance of dry dishes

The unit may only be used for drying dishes.

The unit may not be used to store or heat up food.

The storage of flammable goods or those which negatively affect food is not permissible.

The heated built-in plate dispenser is particularly suitable for catering in social facilities (clinics, retirement homes, children's day care centres), hotels and the food service industry (banquets, party services), and for company catering (canteens, dining halls).

The unit may not be used to transport or store dangerous or toxic substances/liquids.

Conditions of use **Environment**

The unit may be used when the ambient temperature is between –10 °C and +38 °C and at normal humidity (without condensation) in closed rooms.

The unit has been developed for use up to 2000 m above sea level.

Instruction of third parties

If the unit is lent to third parties, these persons must be instructed in the safe handling of the unit and possible dangers must be pointed out.

Product features **General information**

The heated built-in plate dispenser is made of stainless steel. The stainless-steel surface is micro-polished.

The unit designation contains an abbreviation of the unit model. The first two letters designate the unit type ("TS" refers to **T**eller **s**pender = plate dispenser) and the third letter "E" designates the unit as a **E**inbaugerät (built-in unit).

A hyphen is followed by additional features typical for the unit.

The unit is enclosed by a housing cover.

Assembly

The heated built-in plate dispenser is suitable for installation at food counters and places where food is distributed.

The unit can be installed easily without additional accessories being required.

The heated built-in plate dispenser is hung in the food counter/food distribution equipment from above.

Handling and operation

Stacked items are stacked on a stacking platform. The distribution height of the stacking platform can be set by hooking and unhooking springs.

The unit is equipped with static heating.

The temperature control is based on a mechanical capillary-tube thermostat.

The desired setpoint temperature in the unit can be set continuously via a rotary knob next to the mains connection cable. The maximum temperature is approx. +85 °C.

The unit has an On/Off switch.

Overload protection prevents the unit from overheating.

The plate dispensers are suitable for round plates with a diameter between 180 and 330 mm and square plates between 180 x 180 and 280 x 280 mm.

The guide rods in the stacking well can be adjusted to the plate diameter.

The stacking well of the plate dispenser is equipped with 4 guide rods. The plate tube can be optionally equipped with 4 additional guide rods to hold smaller dishes or dishes of different shapes securely.

Cleaning

The stacking well can be removed for thorough cleaning.

Safety

General information

The unit has been built to state-of-the art standards. All the requirements necessary to ensure safe operation have been met. Nevertheless, residual risk does exist when operating the unit. The safety precautions and warnings in these operating instructions are there to help you protect yourself against these hazards.

Safety precautions

Thoroughly read and observe the safety precautions in this chapter.

The owner is responsible for ensuring that safety precautions in these operating instructions are observed.

Warnings

Observe the warnings with the danger symbol (warning triangle) in the text.

Operating instructions

These operating instructions must be read carefully prior to commissioning.

The owner is responsible for ensuring that all users have read these instructions before using the unit.

Store these operating instructions in a location which is always accessible to operating personnel.

Cleaning and maintenance

Disconnect the unit from the power supply before cleaning or maintenance work or replacing parts. Keep the mains and/or unit plug in a suitable place where it is protected from moisture, damage and dirt while carrying out work.

About this product

Scope of application

The unit may only be used for the applications specified.

The owner is responsible for ensuring appropriate and proper use of the unit.

Conditions of use

The unit may only be operated under the permissible ambient conditions.

Users of the unit must be instructed in its operation and must have understood these operating instructions.



Caution!

Damage and personal injury

If explosive materials or containers are stored in the unit and the unit is put into operation, this may cause an explosion and subsequent personal injury and property damage.

- Do not store any explosive materials, such as aerosols with flammable propellant, in this unit.
-

Transport Upright transport position

Transport the unit in an upright position only.

Transport with a truck or delivery vehicle

The unit may only be transported in a truck or delivery vehicle which features a loading ramp. The loading ramp must not exceed an angle of inclination of 10°.

Secure the unit to prevent it from moving around.

Secure the unit against vertical movement during transport. Use padded locking bars.

Protective films

Pull off any protective films when unpacking the unit. Otherwise, a fire could occur.

Assembly Installation site

Do not install the unit next to equipment which develops large amounts of steam (e.g. dishwasher). Steam can cause moisture condensation on the unit.

When the unit is connected to the mains, there is a danger of the moisture film causing a short-circuit or an electric shock.

Unit connection

When the unit is brought into a kitchen after being transported on a cold loading surface or stored in a cold storage room, moisture from the air in the room will form on the surfaces and on the inside of the unit.

When the unit is connected to the mains, there is a danger of the moisture film causing a short-circuit or an electric shock.

Do not connect the unit until it has reached room temperature.

Food distribution equipment/built-in counter

There may be no combustible material in the immediate vicinity of the unit (e.g. panelling).

In order to avoid heat accumulation the unit must have a minimum distance of 10 mm from the surrounding panelling. The area between the unit and the panelling must be empty.

Mains connection

The mains voltage and frequency specified on the rating plate must match the corresponding values for the mains socket outlet.

The unit must not be used if the insulation on the mains cable or the mains plug is damaged.

The mains plug is only to be plugged in or unplugged when the unit is switched off. Otherwise, the unit's electrical system and the mains socket outlet may become damaged.

Only unplug by pulling on the mains plug housing.

Commissioning

Adjusting guide rods

The guide rods must be correctly set to the size of plate being used. Otherwise there is a danger of the plate stack tipping and plates slipping through between the guide rods and being damaged.

The guide rods become hot during heating. Use protection such as pot holders or protective gloves when handling hot guide rods.

Distribution height of stacked items

The distribution height of stacked items must be adjusted to current needs when commissioning. If the stacking platform is set too high, the stacked items may tip over. Stacked items which tip over can cause injuries. If the stacking platform is adjusted too low, the stacked items must be removed in an ergonomically unfavourable position.

The unit interior can become hot during heating. Before setting the distribution height of the stacked items, ensure that the unit interior has cooled down.

The springs for setting the distribution height of stacked items must be unhooked and hooked in symmetrically. Otherwise there is a danger of the springs being loaded unevenly. Heavily loaded springs are subject to increased wear. The springs must be attached in such a way that the start of the spring is not pointing to the well centre.

Handling and operation

General Information

The user must be aware of the hazards that the unit presents and be able to assess them.

The unit may only be used by persons whose physical, sensory or mental abilities are not subject to any restrictions relevant to operating the unit.

If there is damage, secure the unit against accidental use and have repairs carried out immediately by one of the authorised service points listed under Repairs.

Warning signs

The following warning signs are mounted to the unit:

Warning sign	Meaning – Mounting position
	"Warning: hot surface" in compliance with DIN 4844-2
	"Potential equalisation" according to DIN IEC 60417-5021 on the outside of the unit above the potential equalisation connection next to the mains cable.

Replace any illegible, damaged or missing warning signs immediately.

Distribution height of stacked items

The distribution height of stacked items set during commissioning may need to be adjusted. If the stacking platform is set too high, the stacked items may tip over. Stacked items which tip over can cause injuries. If the stacking platform is adjusted too low, the stacked items must be removed in an ergonomically unfavourable position.

The unit interior can become hot during heating. Before setting the distribution height of the stacked items, ensure that the unit interior has cooled down.

The springs for setting the distribution height of stacked items must be unhooked and hooked in symmetrically. Otherwise there is a danger of the springs being loaded unevenly. Heavily loaded springs are subject to increased wear. The springs must be attached in such a way that the start of the spring is not pointing to the well centre.

The stacking well is not suitable for use outside the unit body.

Loading

Do not place synthetic dishes in the stacking unit. The stacking unit and/or the synthetic dishes can be damaged.

Plates with a diameter between 180 and 330 mm and square ones measuring between 180 x 180 and 280 x 280 mm may be used in the plate dispenser with 4 guide rods for each stacking well. If smaller plates are used, there is a danger of the plate stack tipping and plates slipping through between the guide rods and being damaged.

The same risk is present if the guide rods were not adapted to the diameter of the currently stacked plates. For this reason, the guide rods must be re-adapted to the new plate size each time the plate diameter is changed.

Load-bearing capacities

When loading, observe the information on maximum quantities of dishes specified in the technical data and the upper weight limit. Otherwise, the stacking unit or stacked items may tip over and/or be damaged. A tipping stacking unit or tipping stacked items can cause injuries.

Hooded covers

If the unit is heated for a longer period without a hooded cover, a large amount of heat is lost. Always cover the unit with a hooded cover while heating. The hooded cover may only be removed briefly to insert or remove dishes.

Hot unit parts and objects

The unit top and interior and objects such as dishes inside the unit become hot during operation (up to about +85 °C) and can cause burns.

Protection (e.g. with pot holders or protective gloves) must be used when handling hot objects.

Shutting down Disconnecting the mains plug

Insert and remove mains plug only while unit is switched off, as otherwise the unit electrical system and the mains socket outlet can be damaged.

Only unplug the mains plug by pulling on the mains plug housing.

Cleaning and care Switching the unit off

Switch the unit off before cleaning it. Water penetrating into the unit can cause a short-circuit. If this happens, there is a risk of electric shock.

Hygiene

You must comply with the specifications in Regulation (EC) no. 852/2004 and your national hygiene regulations.

Cleaning frequency

Clean the unit exterior after each use. Clean the unit interior if necessary.

Cleaning methods

Use approved cleaning methods only.

Do not use steam jet units, high-pressure cleaners, water sprayers or similar cleaning devices.

General information on cleaning agents

Do not use metal parts for cleaning. Metal parts can damage the unit and/or lead to corrosion.

Do not use pointed or sharp objects for cleaning. They can damage the unit.

Do not use scouring agents. Scouring agents scratch surfaces.

Cleaning agents for synthetic parts

Do not use scouring agents. Scouring agents scratch surfaces.

Do not use the following cleaning agents or cleaning agents containing the following substances (material damage!):

- Ethyl alcohol, isopropyl alcohol and higher alcohols
- Acetone
- Benzene
- Turpentine
- Acetic ester

Hot unit parts and objects

The unit top, unit interior and any objects located inside (dishes) become hot during operation (risk of burns!).

Allow the unit to cool for at least 20 minutes before cleaning.

Maintenance Periodical electrical safety inspection

Have a professional electrician perform a periodical electrical safety inspection as per the DIN VDE 0701-0702 series of standards at least once every six months.

Connection cable and mains plug

Check the connection cable and mains plug for mechanical damage and signs of excessive deterioration at least once every six months in accordance with DGUV Regulation 3 (formerly BGV A3) or equivalent national regulations.

Repairs Authorised persons

The unit may only be repaired by the following service points:

- In-house, B.PRO-trained professionals
- External, B.PRO-trained customer service
- B.PRO service

The warranty will be invalidated if repairs are carried out by anyone else.

Built-in plate dispenser, heated **OPERATING INSTRUCTIONS**

Standards and guidelines Observe the applicable standards, guidelines and safety regulations.

The owner is responsible for compliance with the applicable standards, guidelines and safety regulations.

Product marking The unit is fitted with a rating plate. The warranty is voided if the rating plate is removed.

Transport

Checking for/reporting transport damage

☞ The unit must be checked for any damage incurred during transport (visual inspection) immediately after delivery.

- Document any damage incurred during transport (description of defect) on the waybill in the presence of the carrier.
- Have the carrier confirm the damage (signature).
- Keep the unit and send a complaint to B.PRO about the damages and include the waybill.
– or –
Do not accept the unit and have the carrier return it to B.PRO.

☞ This procedure ensures that damage claims are handled correctly. The unit recipient must provide suitable proof if transport damage is reported at a later point in time.

Scope of delivery

The scope of delivery contains the following as standard:

- Built-in plate dispenser
- Operating instructions
- Additional rating plate

The exact scope of delivery and model of the unit is to be taken from the delivery documentation.

☞ An additional rating plate for the unit is included with the operating instructions. The additional rating plate has to be affixed in these operating instructions.

☞ Section „Fault description“

Unpacking

- Open the transport packing at the designated opening points. Do not rip or cut it!
 - Check the scope of delivery.
 - Remove any protective film from the unit.
 - Affix the additional rating plate at the location provided in these operating instructions.
- ☞ Section „Fault description“

Disposing of packaging material

☞ Packaging materials are recyclable.

- Recycle packaging materials in a proper, environmentally responsible manner as per applicable statutory requirements.

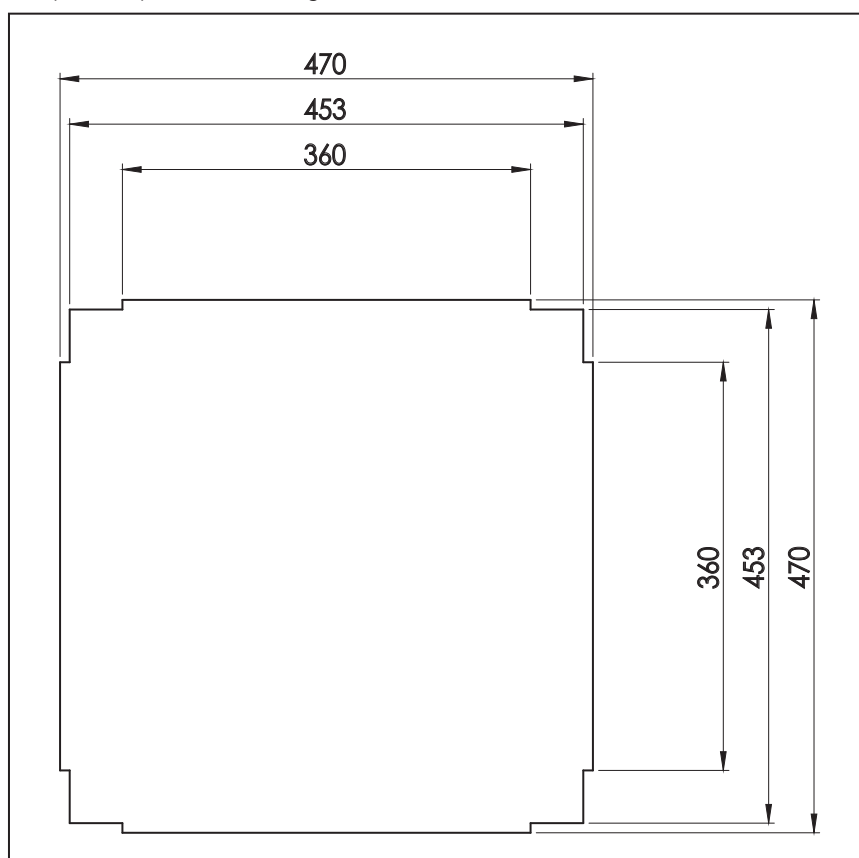
Assembly

Assembly requirements

- ✓ Experienced personnel
- ✓ Suitable installation site (not next to equipment which develops large amounts of steam, e.g. not next to a dishwasher)
- ✓ Suitable counter (fire-resistant material, no heat accumulation)
- ✓ Minimum distance between the stacking unit and the surrounding panelling: 10 mm
- ✓ Tool for preparing the food counter

Installation dimensions

☞ The plate dispensers are hung in a cut-out in the food counter from above.



Installing the unit

☞ B.PRO recommends providing access to the mains connection and to the temperature control when carrying out the installation.

- ✓ Unit has reached room temperature
- ✓ There are no signs of defects or visible damage to the unit
- ✓ Any existing protective film is completely removed
- Prepare the food counter according to the dimensions from the previous section.
- ☞ Section „Installation dimensions“
- ☞ Chapter „Technical data“
- Hang empty unit into the food counter cut-out from above.

Ensuring potential equalisation

☞ In some countries an additional potential equalisation of built-in units is required.

- Check whether potential equalisation is required in your country.
- If necessary, connect pin for potential equalisation with the potential equalisation provided by the customer in accordance with the national regulations.

Connecting the unit

✓ The unit is switched off



Caution!

Material damage

If the unit is not rated for the mains voltage or frequency which is available, the unit electrical system may suffer permanent damage.

- Before connecting, make sure that the mains voltage and mains frequency on the rating plate correspond with those for the mains socket outlet
-

Cleaning the unit

- Clean the stacking unit thoroughly after assembly.

☞ Chapter „Cleaning and Care“

Commissioning

Prerequisites for operation

- ✓ Unit has reached room temperature
- ✓ Unit installed correctly
- ✓ There are no signs of defects or visible damage to the unit
- ✓ The following settings carried out correctly and adapted to the new situation if necessary
- ✓ Any existing protective film is completely removed

Initial start-up

Heating up empty unit for the first time

- ☞ During initial start-up, the insulation material which becomes hot may cause light fumes or odours. For this reason, B.PRO recommends heating the unit empty for approx. 2 hours before initial use.
- ✓ The unit is switched off



Caution!

Damage to the unit's electrical system

The unit's electrical system may suffer damage if the unit is not designed for the available mains voltage or frequency.

- Before connecting, make sure that the mains voltage and mains frequency on the rating plate correspond with those for the mains socket outlet.

-
- Ensure that no objects which are sensitive to heat are located inside the unit or on the unit top.
 - Connect the mains plug to the socket outlet.
 - Switch on unit with the On/Off switch.

The operation indicator illuminates.

- Set rotary knob to the highest level.
- Heat unit approx. 2 hours.
- Switch off unit with the On/Off switch.

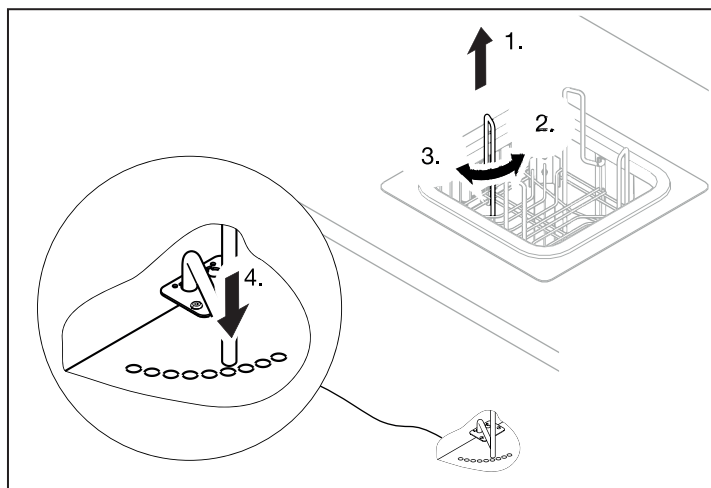
The operation indicator goes out.

- Clean the unit after it cools down.
- ☞ Chapter „Cleaning and Care“

Adjusting guide rods to the plate diameter

- ① The plate dispenser guide rods can be adjusted to the specific diameter of the plates used. B.PRO recommends using the plates to be used to test which setting range is most suitable.

- Pull the guide rod upward (1.).



- Turn the guide rod toward the centre of the tube (2.) if the diameter is to be reduced
– or –
Turn the guide rod toward the housing cover (3.) if the diameter is to be increased.
- Lower the guide rod (4.) and insert it in the corresponding guide hole in the unit bottom.

Testing the distribution height of stacked items

- ❗ The distribution height of stacked items is adjusted using springs, which are used to mount the stacking platform at the top of the unit housing.
- ❗ Individual springs can be hooked/unhooked to adjust the distribution height of stacked items if necessary.
- ❗ The unit is supplied from the factory with fully hooked springs.
B.PRO recommends testing the distribution height of stacked items using this spring setting and making adjustments if necessary.
- ☞ If a different type of stacked item is to be stacked at a later time and it is necessary to change the distribution height of stacked items, either unhooked springs must be hooked in or additional springs unhooked.
- ☞ The distribution height of stacked items is correctly adjusted when the top plate is positioned above the unit cover.
- Place 11 plates on the stacking platform.
- If the top plate does not extend above the upper side of the unit or several plates extend above the upper side of the unit, remove all plates and change the spring setting.
- 🔧 Section „Setting the distribution height of stacked items“
- Retest the distribution height of stacked items after changing the spring setting.
- If necessary, repeat the spring setting change and testing of the distribution height of stacked items until the correct setting is achieved.

Setting the distribution height of stacked items

- ❗ Individual springs are hooked and unhooked to adjust the distribution height of stacked items.
- ❗ The unit is supplied from the factory with fully hooked springs.
- ☞ The following always applies to setting the distribution height of stacked items:
 - The springs must be unhooked and hooked in symmetrically.
 - The springs must be unhooked from the inside outward; i.e. start with the central spring when unhooking the springs.
 - The number of springs hooked into both setting sides may differ by a maximum of 1 spring.

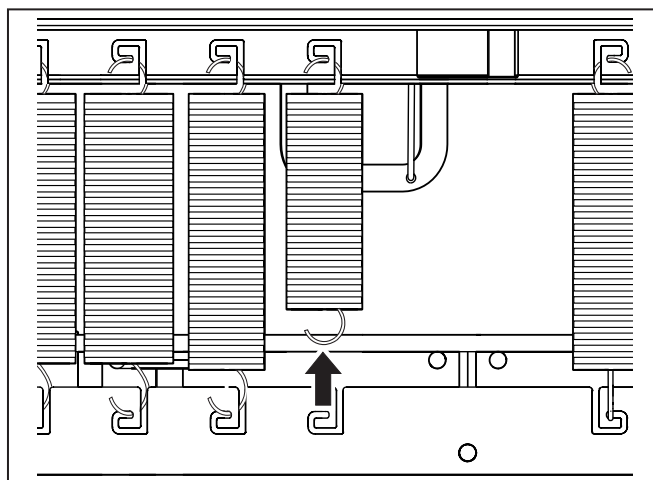


Caution! **Sharp spring end**

The sharp start of the spring can cause injuries to arms, hands and fingers if fitted incorrectly.

- When fitting the springs, you must ensure that the start of the spring on both sides does not point to the centre of the well.

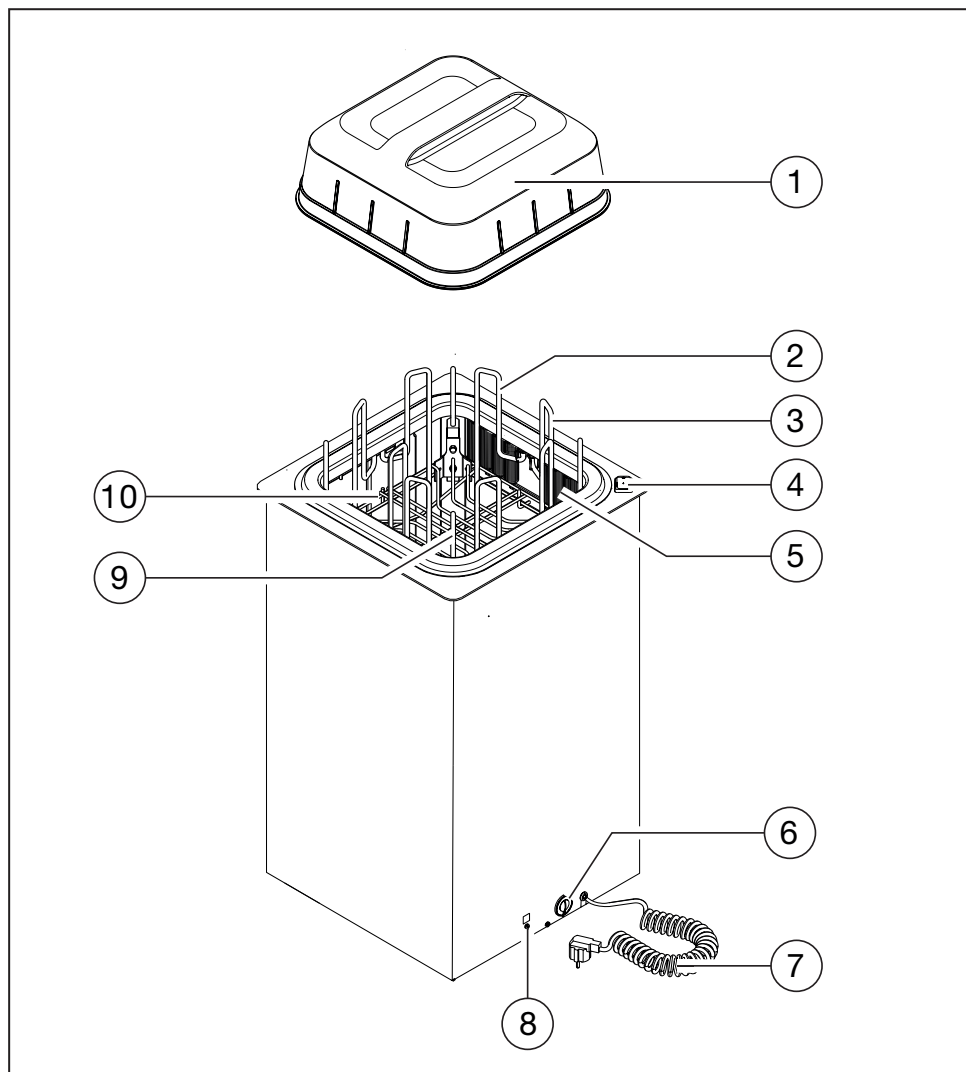
- ☞ If a different type of stacked item is to be stacked at a later time and it is necessary to change the distribution height of stacked items, either unhooked springs must be hooked in or additional springs unhooked.
- Ensure that the unit interior has cooled down.
- Completely remove the stacked items.
- On the lower attachment section, hook in or unhook one of the inside springs at each of the two opposite setting sides.



- Test distribution height of stacked items and hook in or unhook additional springs if necessary.

Handling and operation

Unit overview



- (1) Hooded cover
- (2) Plate guide rod
- (3) Additional plate guide rod (optional)
- (4) On/Off switch
- (5) Springs used for setting the distribution height of stacked items
- (6) Temperature adjustment controller
- (7) Mains cable
- (8) Connection for potential equalisation
- (9) Refilling signal (optional)
- (10) Stacking platform

Applications – overview A distinction is made between the following three uses:

Kitchen area, operation with operating personnel

If the unit is used in a kitchen with operating personnel, there are no limitations on the temperature setting except the following:

When the temperature in the unit climbs above +60 °C, the operating personnel must perform suitable safety measures to ensure that no damage arises. To prevent burns, protection (e.g. with hot pads or protective gloves) must be used when handling the hot unit top and hot dishes.

Public area, operation and operating personnel

If the unit is used in a public area with operating personnel, there are no limitations on the temperature setting except the following:

When the temperature in the unit climbs above +60 °C, the operating personnel must perform suitable safety measures to ensure that no damage arises. To prevent burns, protection (e.g. with hot pads or protective gloves) must be used when handling the hot unit top and hot dishes.

If protective measures must be disregarded for aesthetic reasons, the temperature in the unit may not exceed +60 °C.

Public area, self-service by guests

If the unit is used in a public area and guests can take dishes themselves, the temperature in the unit interior may not exceed +60 °C.

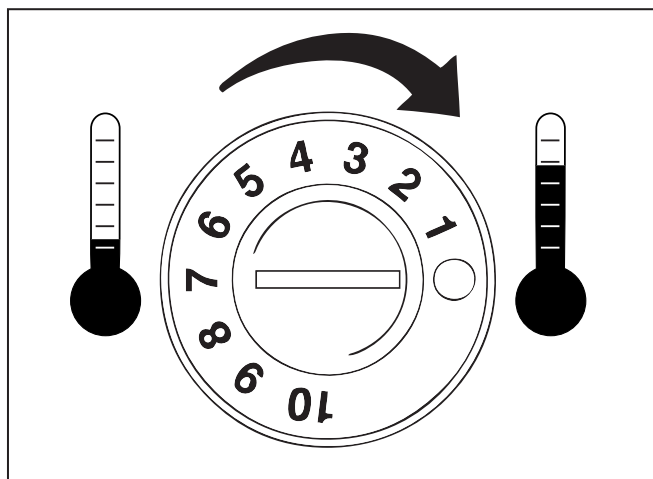
In addition, the unit must be positioned in such a way that the temperature control cannot be adjusted by unauthorised persons. The unit side with the temperature control can be turned to a wall, for example.

Setting the setpoint temperature

- ☞ The setpoint temperature of 60 °C must not be exceeded if the unit is freely accessible to guests. The temperature must be set in such a way that guests' fingers will not be burned on the dishes and top of the unit. B.PRO recommends carefully (!) testing the temperature of the unit top with your hand approx. 45 minutes after switching on and to change the temperature setting if necessary.
- ☞ If guests can take dishes themselves, the unit must be positioned in such a way that unauthorised persons are not able to adjust the temperature control. The unit side with the temperature control can be turned to a wall, for example

Built-in plate dispenser, heated **OPERATING INSTRUCTIONS**

- Set rotary knob to the desired level.



Loading the unit

- ☞ A great deal of heat is wasted if the unit is heated without closing the hooded cover. Always cover the unit with the hooded cover during heating. Only open the unit briefly to insert or remove dishes.
- ☞ Do not place synthetic dishes in the stacking unit. The stacking unit and/or the synthetic dishes can be damaged.
- ☞ The upper weight limits specified in the technical data may not be exceeded when loading.
- ✓ Distribution height of stacked items set correctly
- ✓ Guide rods adapted to the current plate diameter
- Load stacking unit with plates.
- Cover the stacking unit with hooded cover.

Heating dishes and keeping them warm

- ✓ Unit loaded
 - ✓ Unit covered with hooded cover
 - ✓ The unit is switched off
 - Ensure that no objects which are sensitive to heat are located in the unit.
 - Connect the mains plug to the socket outlet.
 - Switch on unit with the On/Off switch.
- The operation indicator illuminates.
- Change the setpoint temperature if necessary.
 - ☞ Section „Setting the setpoint temperature“
 - Heat dishes for 150 minutes.
 - Maintain the temperature of the dishes as long as desired with the unit switched on.

Removing dishes

☞ If guests can take dishes themselves, the unit must be positioned in such a way that unauthorised persons are not able to adjust the temperature control. The unit side with the temperature control can be turned to a wall, for example.



Warning!

Unit top, interior and dishes are hot

While heating, the unit top, interior and dishes become hot and can cause burns.

- Protection (e.g. with pot holders or protective gloves) must be used when handling hot objects.

-
- Remove hooded cover.
 - Remove dishes as needed.

Additional information for use in schools and daycare centres

Scope of application Additional potential hazards are posed due to children/young people coming into contact with this product.
This additional information describes the assessable, additional potential hazards, but does not claim to be complete.

General information and special dangers

Application The unit may only be used for applications specified in the respective operating instructions.

Duty to supervise The unit must NOT be operated without supervision. The duty of supervision is essentially based on the applicable laws and regulations adopted by relevant national authorities, such as the legislator, the employer's liability insurance associations, regulations on a state or municipal level and/or other authorities.

Power supply The use of an electrically operated unit results in an increased supervisory obligation for the supervisor.

The unit may NOT be supplied with power without supervision.
B.PRO recommends: Operate the unit on socket outlets which can be disconnected at a main or central switch. This main or central switch must be installed outside the reach of children.

Avoid subjecting the mains connection cable to tensile strength. This same applies when using a helix cord.

Improper use as a toy It is NOT permitted to climb or clamber on the unit. Children should not be allowed to touch or fiddle with the unit either.

Improper use as a storage space The unit must NOT be used as a storage space for objects and/or living beings.

Dangers of improper use If the unit is misused as described above, the unit may tip over, causing a hazard or possible injury. Such action may cause injury to limbs.

Hot surfaces The unit may have hot surfaces with surface temperatures of >60 °C. This is technically necessary to ensure the proper use and to guarantee the technical properties and/or features of the unit guaranteed by B.PRO.

High surface temperatures can cause burns if people come into contact with surfaces for longer periods of time.

Shutting down

- Shutting unit down**
- Switching off unit with the On/Off switch.
The operation indicator goes out.
 - Pull out the mains plug.

Troubleshooting

Operation indicator does not illuminate

Cause	Measure
Mains plug is unplugged.	► Connect the mains plug to the socket outlet.
Mains cable is damaged; e.g. a wire is broken (can also occur without external damage).	► Have a centre authorised to carry out repairs replace the mains cable. ↳ Chapter „Repairs“
Customer-supplied fuse (building fuse) is defective.	► Check customer-supplied fuse and replace it if necessary.
Unit electrical system is defective.	► Notify a centre authorised to carry out repairs. ↳ Chapter „Repairs“

Operation indicator lit, but dishes are not heated/kept warm sufficiently

Cause	Measure
Temperature setting set too low.	► Set a higher temperature. ↳ Section „Setting the setpoint temperature“
Unit not covered with hooded cover.	► Cover unit with hooded cover.
Unit electrical system is defective.	► Notify a centre authorised to carry out repairs. ↳ Chapter „Repairs“

Operation indicator illuminates, but unit interior remains cold

Cause	Measure
Overload protection has been triggered.	► A centre authorised to carry out repairs ↳ Chapter „Repairs“
Unit electrical system is defective.	► Notify a centre authorised to carry out repairs. ↳ Chapter „Repairs“

The unit always heats at the maximum temperature, regardless of the control setting

Cause	Measure
Temperature control is defective.	► Notify a centre authorised to carry out repairs. ↳ Chapter „Repairs“
Plate size is not suitable for the stacking unit.	None.

Plates are too large or small for the stacking well

Cause	Measure
Guide rods not set correctly.	► Adapt guide rods to the plate diameter. ↳ Section „Adjusting guide rods to the plate diameter“
Plate size is not suitable for the stacking unit.	None.

Built-in plate dispenser, heated **OPERATING INSTRUCTIONS**

Corrosion of stainless steel parts

Cause	Measure
Incorrect handling/care.	► Remove corrosion marks. ► Ensure proper handling/care.

The unit has external damage

Cause	Measure
Damage during transport or other external influences.	► Shut down unit. ↳ Chapter „Shutting down“ ► Secure the unit to ensure it cannot be started up accidentally. ► Notify a centre authorised to carry out repairs. ↳ Chapter „Repairs“

Cleaning and Care

Stainless steel Stainless steel refers to extremely corrosion-resistant, hygienic steels. The stainless steel that B.PRO currently uses primarily consists of iron, chrome and nickel.

The corrosion resistance in stainless steel is provided by what is known as a passive layer, formed on the material surface when it comes into contact with oxygen. Damage to the passive layer caused by mechanical impact is automatically repaired if sufficient oxygen is present on the material's surface.

However, the stability of this passive layer can be breached by chemical reaction and by layers of grease, starch, protein and lime scale, which help to cause corrosion.

The following substances may also cause or advance corrosion if they come into contact with stainless steel:

- Concentrated acids, halogens, such as chloride or bromide, and their salts, and seasoning containing cooking salts
- Acid vapours which may form when industrial cleaners are used, for example
- Contact with other metals, such as steel or iron
- Contact with iron, such as iron contained in steel wool, chips from pipelines or water containing iron particles

Contact with the aforementioned substances must be avoided to maintain corrosion resistance. You must observe the following instructions on cleaning and care.

☞ Stainless steel surfaces must be kept clean, dry and open to the air at all times.

B.PRO recommends:

Treating heavily used stainless-steel surfaces, such as heated bain-marie basins, with DeepClean Stainless Steel on a regular basis in addition to daily routine cleaning. This ensures that the passive layer on the stainless steel surface and, consequently, its corrosion resistance, are preserved for a longer period of time.

Cleaning frequency The surface must be thoroughly rinsed with clean water and dried after every use.

Cleaning methods Wiping clean with a damp cloth forms a mandatory part of the daily routine cleaning. Stubborn stains may be removed with a brush (synthetic or natural bristles).

Any other cleaning methods must be approved by B.PRO.

- ☞ Do not use steam jet units, high-pressure cleaners, water sprayers or similar cleaning devices.
- ☞ Do not use integrated heating systems to dry surfaces under any circumstances.

Cleaning agents The following cleaning agents may be used on stainless-steel surfaces:

- Commercially available stainless steel cleaning agents, e.g. DeepClean Stainless Steel
- Commercially available water-based cleaning agents
- Commercially available organic-based decalcifiers or anorganic acids which do not damage stainless steel, such as acetic acid, citric acid, sulfamic acid or phosphoric acid; contact the cleaning agent manufacturer in case of doubt
- Soft cleaning cloth or damp microfibre cleaning cloth.

Cleaning agents which are not suitable stainless-steel surfaces are:

- All cleaning agents which may contain chlorides or hypochlorite, such as decalcifiers made with hydrochloric acid, chlorine bleaches or similar

The following cleaning agents may be used for powder-coated parts of the unit and for synthetic and glass elements:

- Commercially available water-based cleaning agents
- Soft cleaning cloth
- B.PRO microfibre cleaning cloth (use with water only)
- Residue stains, especially grease splashes and accumulations of grease, can be removed with a 30% soft soap solution and the help of a brush with synthetic or natural brushes
- Glass surfaces can be easily cleaned with commercially available glass cleaners.

Cleaning agents which are not suitable for powder-coated unit parts and synthetic and glass parts include:

- Stainless steel cleaning agents or other abrasive cleaning agents
- Solvent-based cleaning agents
- All cleaning agents which may contain chlorides or hypochlorite, such as decalcifiers made with hydrochloric acid, chlorine bleaches or similar

- Cleaning the unit**
- ✓ Unit is switched off
 - ✓ Mains plug disconnected from the socket outlet
 - ✓ Unit interior and exterior cooled
 - ✓ No stacked items are present in the unit



Warning!

Water penetrating into the housing

Water may penetrate into the housing when cleaning the connected unit and can cause a short circuit or an electric shock.

- Switch off unit with the On/Off switch.
 - Pull out the mains plug to disconnect the unit from the power supply.
-

B.PRO recommends:

As a basic rule, you should always test chemical cleaning agents on a hidden spot first to ensure they are compatible with the surface. This will avoid any unpleasant surprises due to discolouration or other reactions between cleaners and the surface.

☞ If mineral or even metallic dust needs to be removed during cleaning, you must continuously rinse out cleaning utensils, such as brushes and microfibre cloths, to ensure that dust particles leave no marks behind on the surface.

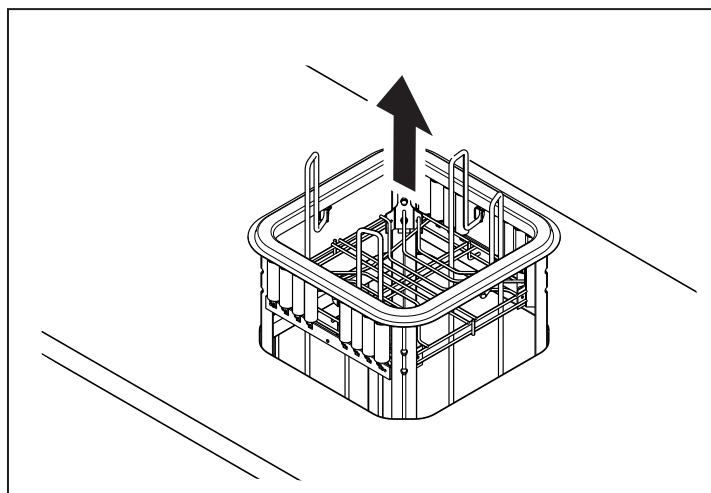
■ You must thoroughly rinse the surface with clean water and dry after every use.

Removing/installing plate stacking well

✓ The stacking well can be removed for thorough cleaning.

Removing stacking well

■ Grasp stacking well with both hands inside well at two opposite sides and lift out of unit.



Installing stacking well



Caution!

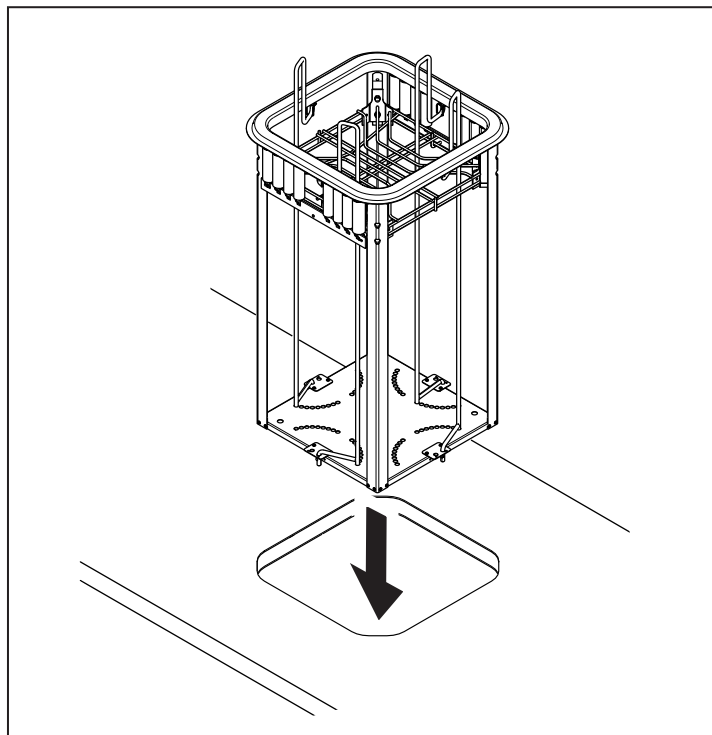
Danger of crushing due to trapped hands

If the stacking well is held outside on the stacking well flange when inserting in the unit body, there is a danger of fingers becoming trapped and injured when lowering the well.

■ To insert the stacking well, always grasp in the stacking well with both hands.

■ Grasp the stacking well inside the well with both hands at two opposite sides and lift it until the stacking well is located above the upper side of the unit.

- Carefully lower the stacking well into the opening in the unit body.



Maintenance

Having the unit regularly maintained

- ☞ B.PRO recommends you have the unit maintained on a regular basis by suitably trained professionals. Regular maintenance prevents failure of the unit, extends its operating life and contributes to general value retention.
- Have the unit maintained by suitably trained professionals regularly.



Warning!

Live components

Live components may cause an electric shock if touched during maintenance work or when replacing parts on the connected unit.

- Switch off unit with the On/Off switch.
 - Pull out the mains plug to disconnect the unit from the power supply.
-

Having periodical electrical safety inspection carried out

- Have a professional electrician perform a periodical electrical safety inspection as per the DIN VDE 0701-0702 series of standards at least once every six months.

Checking connection cable and mains plug

- Check the connection cable and mains plug for mechanical damage and signs of excessive deterioration at least once every six months in accordance with DGUV Regulation 3 (formerly BGV A3) or equivalent national regulations.

Repairs

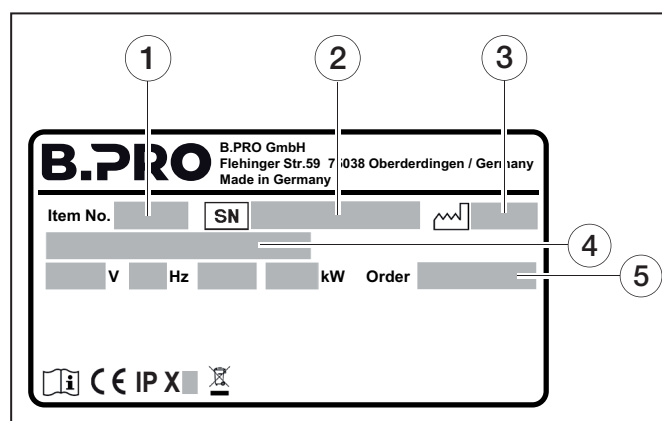
Authorised persons

- ☞ Repairs may only be carried out by the following authorised service points:
- In-house, B.PRO-trained professionals
 - External, B.PRO-trained customer service
 - B.PRO service

Fault description

In addition to an exact description of the defect, the B.PRO Service Department requires the following information from the rating plate:

- Article number
- Model
- Serial number
- Date of manufacture
- Production order number



- (1) Article number
- (2) Serial number
- (3) Date of manufacture
- (4) Model designation
- (5) Production order number

Replacing components

- ☞ Defective components, including the mains cable, may be replaced by the following authorised service centres only:
- In-house, B.PRO-trained professionals
 - External, B.PRO-trained customer service
 - B.PRO service

Spare parts

- ☞ The following information is required when ordering spare parts:
- Designation of spare part
 - Article number
 - Date of manufacture of the unit
 - Quantity
- ☞ See the Service Information System online (www.bpro-solutions.com)

Address B.PRO GmbH
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75038 Oberderdingen
Germany
Phone +49 (0)7045 44 - 81416
Fax +49 (0)7045 44 - 81508
E-mail service@bpro-solutions.com
Internet www.bpro-solutions.com

Disposal

Disposing of the unit



❗ When disposing of old electrical or electronic appliances in regular municipal waste, specific contents in the unit may pose a hazard to the environment and people's health. You must therefore never dispose of the unit with normal municipal waste but take it to a separate waste collection point for electrical appliances, such as a specialised disposal plant. The unit bears the symbol on the left to indicate such contents in compliance with EN 50419 – Marking of electrical and electronic equipment in accordance with Article 15(2) of Directive 2012/19/EU (WEEE). You must also take into account other possible national regulations concerning disposal.

- Render the unit unusable prior to disposal (e.g. by cutting off the mains plug).
- Turn the unit over to a recycling centre or electrical refuse collection site.

- ☞ You must not dispose of this product with other commercial waste.
- ☞ The device may be returned to B.PRO free of charge.
- ☞ You can obtain further information on disposal from your dealer or from B.PRO's Service Department.
- 👉 Section „Address“

Technical data

① Depending on the model, a unit subject to these operating instructions may also have differing technical data (electrical and refrigeration-related specifications, dimensions). The mandatory information is provided on the rating plate or in the specific order documents and/or on drawings.

General data Dimensions and weight (approximate)

Model	Exterior dimensions in mm (L x W x H)	Clear dimension in mm	Empty weight in kg
TSE-H1 18-33 ET 684	480 x 480 x 810	Ø: 180 to 330	28
TSE-H1 18-33 ET 800	480 x 480 x 930		30

Model	Installation depth in mm
TSE-H1 18-33 ET 684	684
TSE-H1 18-33 ET 800	800

Capacity/load (approx.)

Model	Capacity/inside dimensions in mm (depending on the dishes used)	Stacking height in mm (with/without hooded cover)	Max. load in kg
TSE-H1 18-33 ET 684	70 plates Ø: 180 to 330 □: 180 x 180 to 280 x 280	685/670	65
TSE-H1 18-33 ET 800	80 plates Ø: 180 to 330 □: 180 x 180 to 280 x 280	800/785	75

Temperature range (unit interior)

+30 °C to +85 °C

Electrical data Connected loads

Model	Voltage	Output (maximum)
TSE-H1	220–240 V, 50–60 Hz	0.83 kW

Protection type

IP X 5 (the unit is protected against sprayed water in accordance with DIN EN 60529.)

Environment Ambient conditions – operation

Temperature:	–10 °C to +38 °C
Relative humidity:	without condensation

Ambient conditions – storage, transport

Temperature:	–10 °C to +40 °C
Relative humidity:	without condensation

Emissions

The workplace-specific noise level for the unit is less than 70 dB(A).

Materials

Unit body:	Stainless steel, polyamide, polyethylene
PC hooded cover:	Polycarbonate
EPP hooded cover (optional):	Polypropylene
Guide rods:	Synthetic-coated steel

Ordering information

TSE-H1 18-33 ET 684		
built-in plate dispenser	Article number	374 298, 573 782
TSE-H1 18-33 ET 800		
built-in plate dispenser	Article number	374 299, 573 783
Operating instructions	Document number:	154 652

Accessories

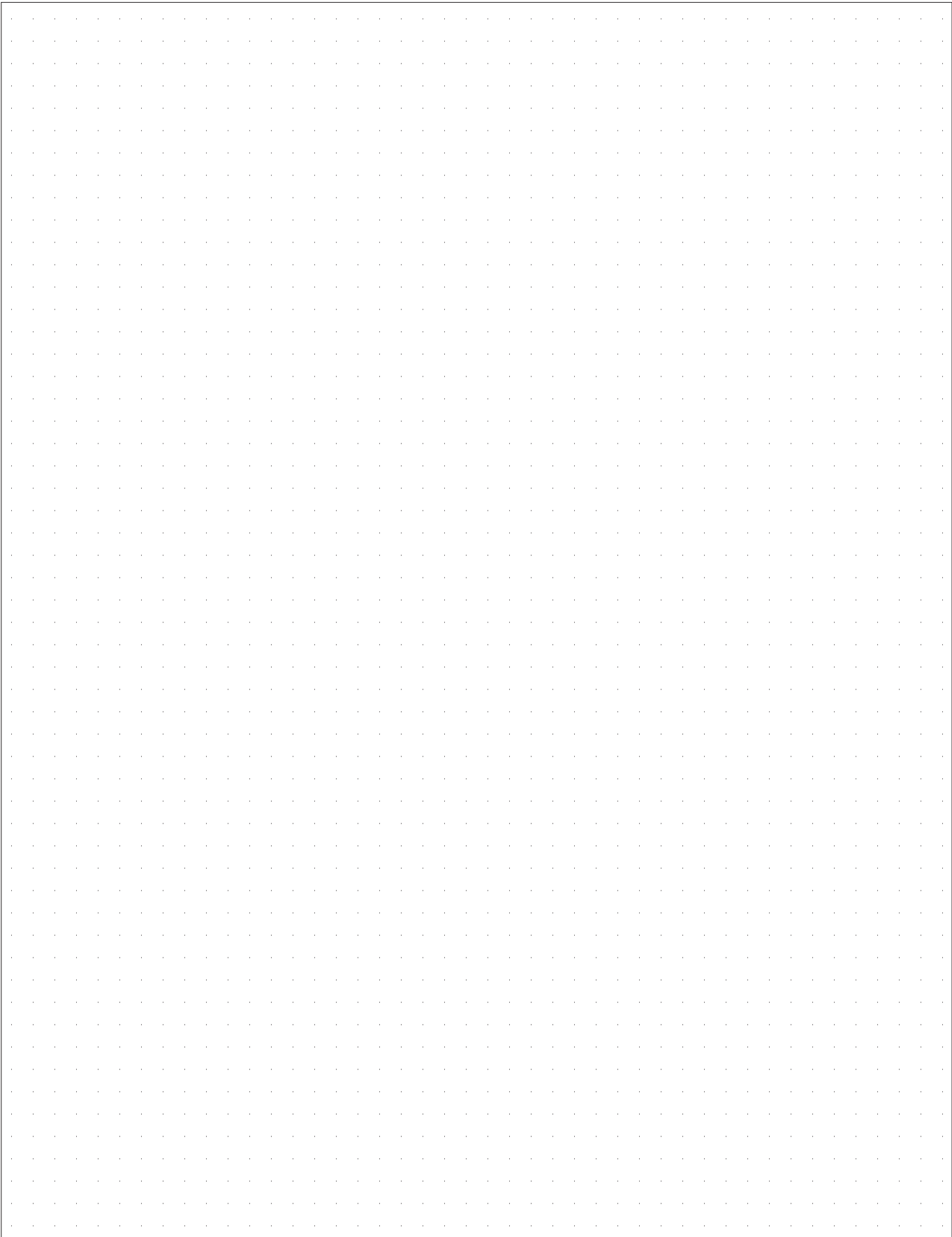
PC hooded cover for		
plate dispenser	Article number	573 771
EPP hooded cover for		
plate dispenser	Article number	573 767
B.PRO microfibre		
cleaning cloth	Article number	126 999
DeepClean Stainless		
Steel cleaning and care		
agent	Article number	511 895

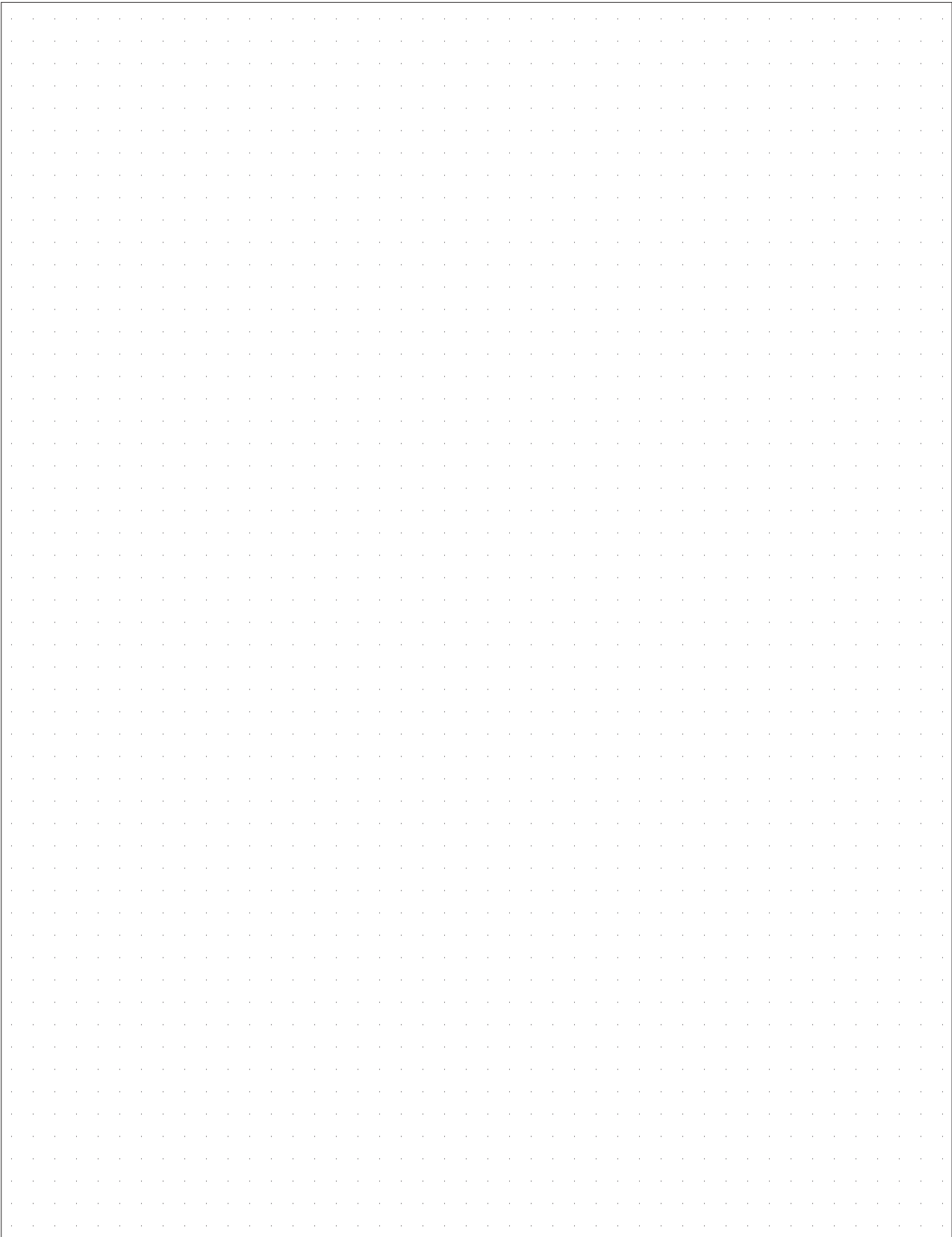
Standards, guidelines, rules, regulations

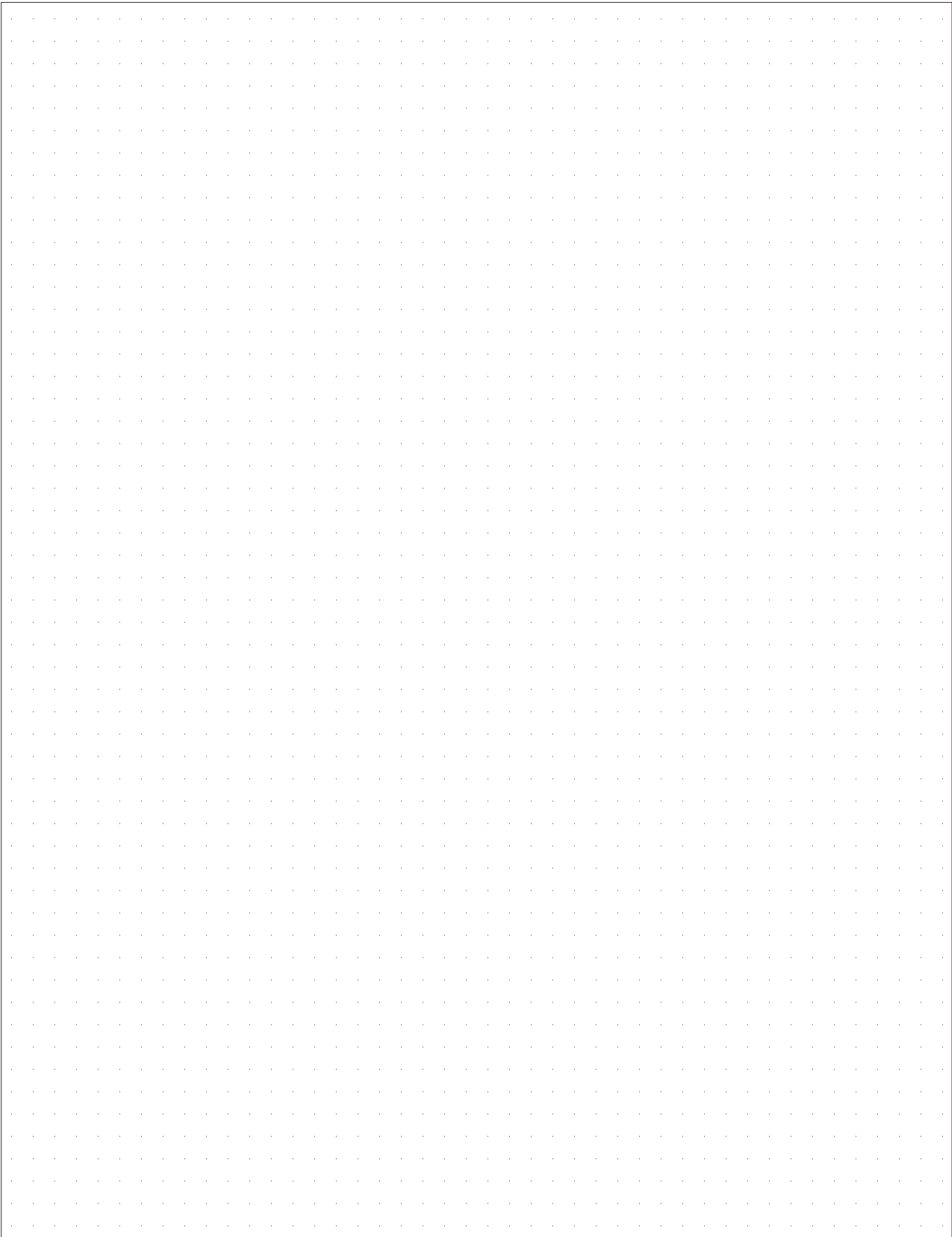
Standards	The unit is in compliance with the fundamental requirements specified in the applicable product standards in their latest version when it is delivered.
Directives for CE marking/ EU declaration of conformity	Where applicable, the unit is in compliance with the fundamental requirements specified in the following regulations/guidelines in their latest version when it is delivered.  • 1935/2004 Regulation on materials and articles intended to come into contact with food • 2006/42/EC Machinery Directive • 2014/35/EU Low Voltage Directive • 2014/30/EU EMC Directive • 2011/65/EU RoHS Directive • 2014/68/EU Pressure Equipment Directive

Rules, regulations	The following rules, regulations, German Employers' Liability Insurance Association rules and any other applicable provisions for countries of use must be observed in their latest version when handling and using this unit. • EC No. 852/2004 Regulation on the hygiene of foodstuffs • DGUV regulation 110-003 Working in kitchens • DGUV Regulation 3 Accident prevention regulations for electrical facilities and devices
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You can obtain a copy of the EU declaration of conformity from the B.PRO Service/Sales Team on request.







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