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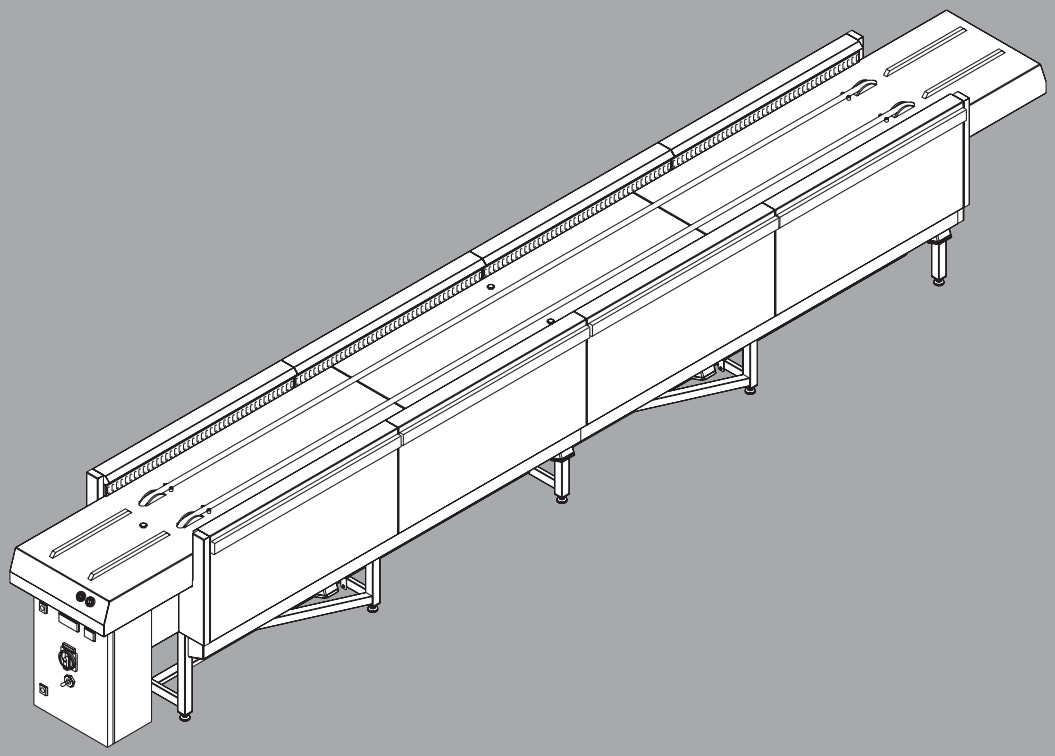
CATERING SOLUTIONS



COOLED FOOD DISTRIBUTION CONVEYOR RSPV-UK

Translation of the original operating instructions

General information

Copyright

Technical changes

Subject to modifications for the purpose of technical improvement.

Product documentation

Translation of the original operating instructions;
target group: operating personnel, kitchen directors.

Typographical conventions

- ☞ Important **note** on special features or special cases.
- **i** **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 variant XYZ

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

Warnings

⚠ **Signal word!**

Type and source of danger
Possible consequences of non-compliance with the warnings.
➨ Measures to avoid dangers and the consequences thereof.

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

Caution warns of possible light bodily injuries and damage to property.

Warning warns of possible serious bodily injury.

Danger warns of possible highly severe/fatal bodily injury.

Content

About this product

Application

The RSPV-UK cooled food distribution conveyor is designed for the following applications:

- Portioning cooled food on Euronorm and Gastronorm trays

The RSPV-UK cooled food distribution conveyor can be used as a system component in combination with other cooled units for the distribution of dishes and food (e.g. cooled basket dispenser and cooled food distribution trolley).

The RSPV-UK cooled food distribution conveyor is primarily suitable for use in social facilities (in clinics, company restaurants, at convenience food manufacturers and catering companies).

The RSPV-UK cooled food distribution conveyor is **not** intended for the following uses:

- For cooling down hot food
- For transporting Gastronorm containers or other objects and goods on the round-belt conveyor
- For keeping food cold beyond the actual portioning process (e.g. as a kind of cooling tray or cooling area)
- For cooling rooms

Conditions of use

Environment

The unit may be used when the ambient temperature is between +10 °C and +35 °C and at normal humidity (without condensation).

The maximum ambient temperature at which the unit reaches the setpoint temperature specified when used properly is +32 °C.

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 RSPV-UK cooled food distribution conveyor is made of stainless steel. The stainless-steel surface is micro-polished.
The RSPV-UK cooled food distribution conveyor consists of a unit body, to which the cooling modules are attached. The trays are transported on two parallel round-belt conveyors. The food distribution belt is available with an integrated refrigeration unit (for unit lengths from 3 m to a maximum of 5 m) or can be connected to a central refrigeration system provided by the customer.

The unit is driven with a drum motor integrated in the unit body. The length of the round-belt conveyor can be selected in 1-metre steps (for unit lengths from 3 m to a maximum of 12 m). For a unit length of 9 m or more, the unit is driven with two drum motors.

Operation

The RSPV-UK cooled food distribution conveyor can be loaded with Euronorm and Gastronorm trays.

The controller of the food distribution conveyor is installed in a switch cabinet in the underframe.

The food distribution conveyor is equipped with a central main switch with which the unit is switched on and off.

The food distribution conveyor is equipped with at least one Emergency-Stop switch, which switches off operation of the round-belt conveyor.

The speed of the round-belt conveyor is steplessly adjustable from 2.5 to 12 m/min as standard. Cooling and operation of the round-belt conveyor can be switched independently of each another.

The refrigeration parameters can be set down to the degree using temperature regulation with a digital temperature indicator. LEDs on the control panel of the temperature control show the current operating status of the unit.

The temperature control registers deviations of the actual temperature from the setpoint temperature outside a preset temperature range and signals them via an acoustic and a visual alarm signal.

The temperature range of the temperature control lies between +7 °C to +15 °C.

Cleaning and defrosting

The cooled food distribution conveyor is equipped with an automatic defroster.

Each cooling module has a condensation-water catch tray. A drain is provided in the condensation-water catch tray with which condensation water or cleaning water can be drained off.

The drains of the cooling modules are connected to each other with a hose, which enables the water to be drained off centrally. The drainage facility has been provided with a shut-off cock.

Standard model

The RSPV-UK cooled food distribution conveyor is equipped as follows:

- Permanent connection to power supply provided by customer
- Emergency-Stop switch
- Central main switch
- Round-belt conveyor with tray transport
- Connection for central refrigeration system provided by customer
- On/Off button for round-belt conveyor running (tray transport)
- On/Off switch for cooling
- Cooling control
- Speed control of round-belt conveyor

Options and accessories

The RSPV-UK cooled food distribution conveyor is available with the following optional equipment:

- Schuko socket outlets (230 V), quantity and positioning optional
- Integrated refrigeration (up to maximum unit length of 5 m)
- Additional Emergency-Stop switch
- Additional On/Off button for round-belt conveyor running (tray transport)
- Foot switch for round-belt conveyor running (tray transport)
- Fault-current protective device (residual-current circuit breaker) for socket outlets
- Bumper rail profile on both sides
- Data logger for temperature logging
- Adapter cable with Schuko plug on CEE coupling

Functional principle

Description

The RSPV-UK cooled food distribution conveyor is equipped with active convection cooling. Convection cooling operates based on the following principle:

The evaporator of the refrigeration system extracts heat from the ambient air. A fan circulates the cooled air in a circuit in the unit and over the food transport area.

Each cooling module has a separate cooling system consisting of an evaporator and a fan.

Safety

General information

The unit has been built using state-of-the-art technology. Accordingly, all the requirements necessary for safe operation have been fulfilled. 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 sources of danger.

Safety precautions

Thoroughly read and observe the safety precautions in this chapter.

The operator is responsible for the observance of the safety precautions in these operating instructions.

Warnings

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

Operating instructions

These operating instructions must be read carefully before you use the unit for the first time.

The operator is responsible for ensuring that all users have read these instructions before operating the unit for the first time.

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

About this product

Application

The unit may only be used for the applications specified.

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

Conditions of use

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

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

Safety devices

The unit is equipped with at least one Emergency-Stop switch. The Emergency-Stop switch interrupts round-belt conveyor running.

As an option, the unit socket outlets can be equipped with a fault-current protective device (residual-current circuit breaker).

Do not deactivate the safety devices. Do not operate the unit if the safety devices are defective or if they have been deactivated.

The operator is responsible for the orderly functioning of the safety devices.

Transport

Upright transport position

Transport the unit or unit components in an upright position only.

Transporting with a truck or delivery vehicle

Observe the following when transporting the unit or the unit components:

- Only transport the unit in a truck or delivery vehicle with a loading ramp
- Secure the unit on all four sides to prevent it from shifting
- Secure the unit against vertical movement during transport
- Insert padded locking bars

Assembly

Location

To ensure optimum cooling of the food, note the following points when selecting where to place the unit:

- Operate the unit far away from units which develop large amounts of steam. Steam can result in the unit thawing out and can cause the danger of a short circuit or an electric shock due to the moisture film in the connected unit.
- Set up the unit far away from possible heat sources (e.g. dishwasher, heater, oven)
- Operate the unit protected from direct sunlight
- Sufficiently protect the unit from drafts

Installation on site

Depending on the unit length, the unit is delivered as several components and assembled on site by B.PRO.

Commissioning

Mains connection

The mains connection may only be carried out by a professional electrician taking the corresponding national guidelines and safety regulations into account. The mains voltage and frequency listed on the rating plate must match the corresponding values of the electrical connection provided by the customer.

Refrigeration connection

The unit can be connected to an integrated refrigeration unit (with unit lengths from 3 m to a maximum of 5 m) or to a central refrigeration system provided by the customer.

The connection to a central refrigeration system provided by the customer or the installation and connection of the integrated refrigeration unit must be carried out by a refrigeration expert. In this case the information of the system manufacturer and the technical data in this manual must be observed.

Operation

General information

The user must be aware of the dangers involved with the unit and be able to assess them.

The unit is only to be used when it is in proper working order.

If damage is present, secure the unit against accidental use and have repairs carried out immediately at one of the following locations:

- In-house, B.PRO-trained professional
- External, B.PRO-trained customer service
- B.PRO Service
- For repairs to the refrigeration system: Specialist refrigeration company

Authorised persons

Only instructed, authorised persons may operate the food distribution conveyor.

Hygiene regulations

When keeping food cool, observe the relevant regulations on foodstuffs as well as the characteristics of the food in question.

Change of location

A change of location may only be carried out by B.PRO Service (reason: complex assembly and/or dismantling of the unit).

For details, see the B.PRO service documentation.

Emergency-Stop switch

The Emergency-Stop switch must be freely accessible and familiar to all those who use the unit. It interrupts round-belt conveyor running in an emergency. The Emergency-Stop switch may not be actuated to switch off round-belt conveyor running under normal operating conditions.

Unit model with fault-current protective device

Depending on the number installed, the unit socket outlets are equipped with one or two fault-current protective device(s) (residual-current circuit breaker(s)) in the switch cabinet.

If the electrical installation of the peripheral devices are damaged, e.g. by fault currents on the protective conductor, the peripheral devices are disconnected from the power supply by the fault-current protective device(s).

Reflex light sensor

The reflex light sensor is a safety device. It stops the conveyor if, for example, it is covered by a tray. This ensures that objects/trays which have not been removed in time do not fall to the floor at the end of the round-belt conveyor.

Tray transport

Observe the following during tray transport:

- Only operate round-belt conveyor with air grilles installed
- Round belts are correctly tensioned
- Trays are aligned parallel to the direction of transport to prevent jamming

Draw-in area of round-belts

Exercise caution in the draw-in area of the round-belts – danger of pinching for body parts and loose pieces of clothing.

Shutting down

Switching the unit off

Switch off the unit with the main switch (set to "0") or switch off the circuit breaker provided by the customer.

Cleaning and care

Hygiene

Comply with the regulations of the Hygiene Directive 93/43/EEC and the nationally applicable hygiene regulations of the respective country.

Mains connection

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

Cleaning and defrosting frequencies

Clean the unit thoroughly after each use.

Empty the condensation-water catch tray of the individual cooling modules. If you do not empty the condensation water regularly, the condensation-water catch tray may overflow and cause a risk of slipping and damage to the floor.

Cleaning methods

Use only approved cleaning methods.

Impermissible cleaning methods can damage the unit.

Do not use a steam jet unit or high-pressure cleaner.

Cleaning agents

Impermissible cleaning methods can damage the unit.

Do not use a steam jet unit or high-pressure cleaner.

Do not use any of the following cleaning agents for the round-belt conveyor (damage to material!):

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

Cleaning water, water condensation

Completely wipe up any water which runs out of the unit.

A danger of slipping exists if cleaning water runs out of the unit during or after cleaning.

Thoroughly dry the unit after cleaning. When doing so, remove cleaning and condensation water from the condensation-water catch tray.

Maintenance

Periodical electrical safety inspection

At least once every 6 months, have a periodical electrical safety inspection carried out by a professional electrician in accordance with the DIN VDE 0702 series of standards.

If a fault-current protective device is installed, have it checked at least monthly in accordance with BGV A3 or corresponding national specifications by a professional electrician.

Repairs

Authorised persons

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

- In-house, B.PRO-trained professional
- External, B.PRO-trained customer service
- B.PRO Service
- For repairs to the refrigeration system: Specialist refrigeration company

The warranty will be invalidated if the unit is repaired by anyone else.

Standards and guidelines

Observe the applicable standards, guidelines and safety regulations.

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

Transport

Checking for/reporting on damage incurred during transportation

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

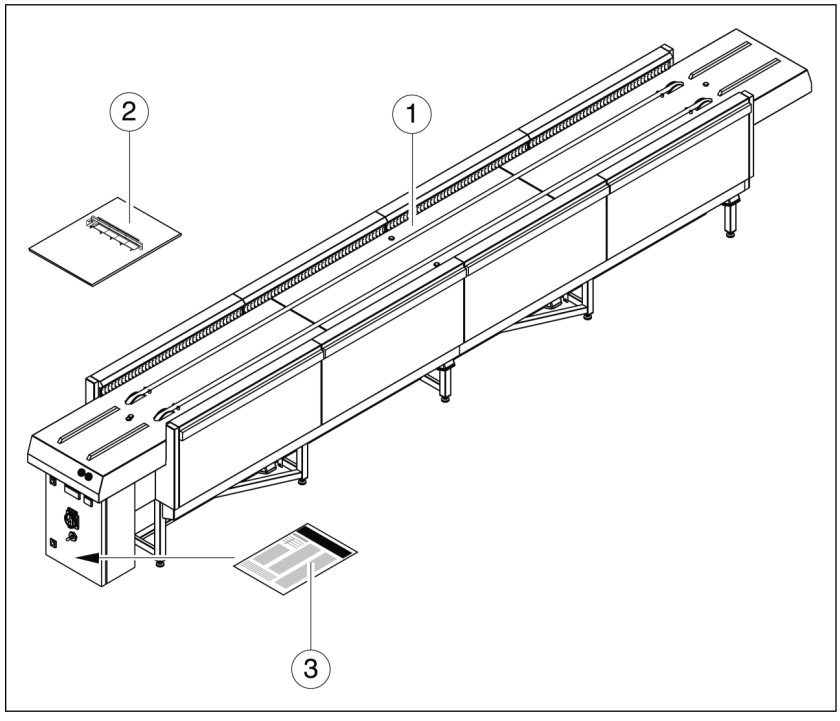
- Document (description of defect) any damage incurred during transport on the waybill in the presence of the carrier.
- Have the carrier confirm the damage (signature).
- Retain the unit or unit components and notify B.PRO of the damages with the waybill.

  – or –

  Do not accept the unit or unit components and return it to B.PRO via the deliverer.

☞ This procedure will ensure correct processing of claims. Transport damage reported later has to be proven accordingly by the receiver of the unit.

Scope of delivery



(1) RSPV-UK cooled food distribution belt (several unit components depending on the unit length)
(2) Operating instructions
(3) Further information (in switch cabinet): Instructions for the temperature control, optionally for the data logger and other service-relevant documents

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

Unpacking

- Open the transport packing at the places provided. Do not rip or cut it!
- Check the scope of delivery.
- Remove any protective film from the unit.

Disposing of packaging material

- ☞ Packaging materials can be handed over to a recycling centre after quoting the disposal contract number. If the applicable disposal contract number is not available, this can be obtained by contacting B.PRO Service.
- Dispose of packaging material correctly and in an environmentally responsible manner.

Commissioning

Prerequisites for operation

- ✓ Unit has reached room temperature and is dry
- ✓ There are no signs of defects or visible damage to the unit
- ✓ Emergency-Stop switch released
- ✓ Food distribution belt in hygienically proper condition

Unit model with several cooling modules

- ✓ Refrigeration lines of cooling modules are connected to a cooling system
- ✓ If socket outlets are installed, the electrical installations of the cooling modules are connected
- ✓ The condensation water drains of the cooling modules are connected

Connecting unit

Positioning unit

☞ To ensure optimum cooling of the food, note the following points when selecting where to place the unit:

- ➨ Operate the unit far away from units which develop large amounts of steam. Steam can result in the unit thawing out and can cause the danger of a short circuit or an electric shock due to the moisture film in the connected unit.
- ➨ Set up the unit far away from possible heat sources (e.g. dishwasher, heater, oven).
- ➨ Operate the unit protected from direct sunlight.
- ➨ Sufficiently protect the unit from drafts.

Connecting unit to power supply

- ✓ Unit is switched off

⚠ Caution!

Material damage!
If the unit is not rated for the mains voltage or frequency which is available, the unit electronics may suffer permanent damage.

- ➨ Before connecting, ensure that the mains voltage and frequency listed on the rating plate match the corresponding values of the electrical outlet provided by the customer.

☞ The mains connection may only be carried out by a professional electrician taking the corresponding guidelines and safety regulations into account.

- ➨ Connect unit to power supply.

Initial start-up

Preparing condensed water drain

- Make sure that the shut-off cock on the central condensed water drain is closed or is connected to a drain provided by the customer.

Checking setpoint temperature of cooling

i The setpoint temperature to which the unit adjusts the temperature in the transport area is set at the factory to +7 °C.

- Change the setpoint temperature if necessary.
  ↳ Section "Setting the setpoint temperature" on page 19.

Connecting refrigeration unit

☞ The connection to a central refrigeration system provided by the customer or the installation and connection of the integrated refrigeration unit must be carried out by a refrigeration expert. In this case the information of the system manufacturer and the technical data in this manual must be observed.
↳ Chapter "Technical data" on page 52.

Adjusting round-belts

☞ On the upper side of the food distribution conveyor close to each round-belt an opening for adjustment is located for regulating the tension of the round-belts using an Allen key.

✓ 6 mm Allen key

⚠ Warning!

Round-belt conveyor running started by accident!
If the conveyor running is accidentally started when testing the tension of the round-belts, injuries to hands can occur, particularly in the draw-in area of the round-belt.

- Make sure that the main switch is set to "0".

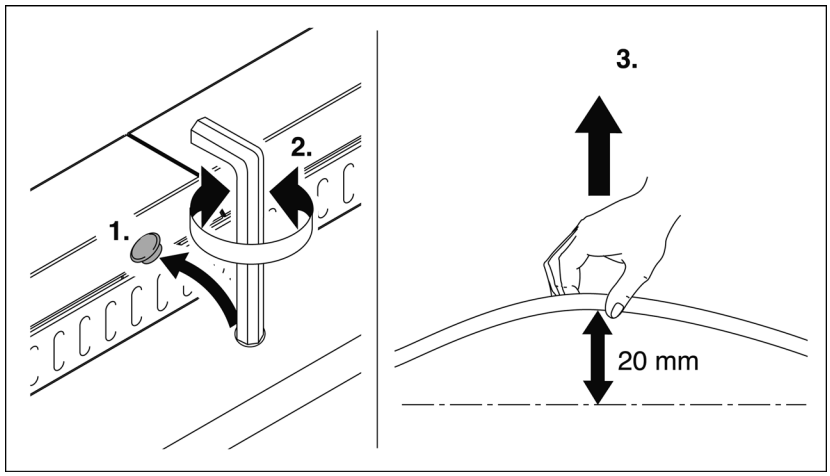
☞ The round-belt is sufficiently tensioned when it can be raised by approx. 2 cm in the centre of the food distribution conveyor.

- Check the tension of both round-belts. If the tension is insufficient or too strong, carry out the following steps:
- Remove the cover cap of the opening for adjustment and insert an Allen key in the adjustment opening.

- If the round-belt is tensioned too loosely, turn the Allen key clockwise until it is tensioned correctly.

  – or –

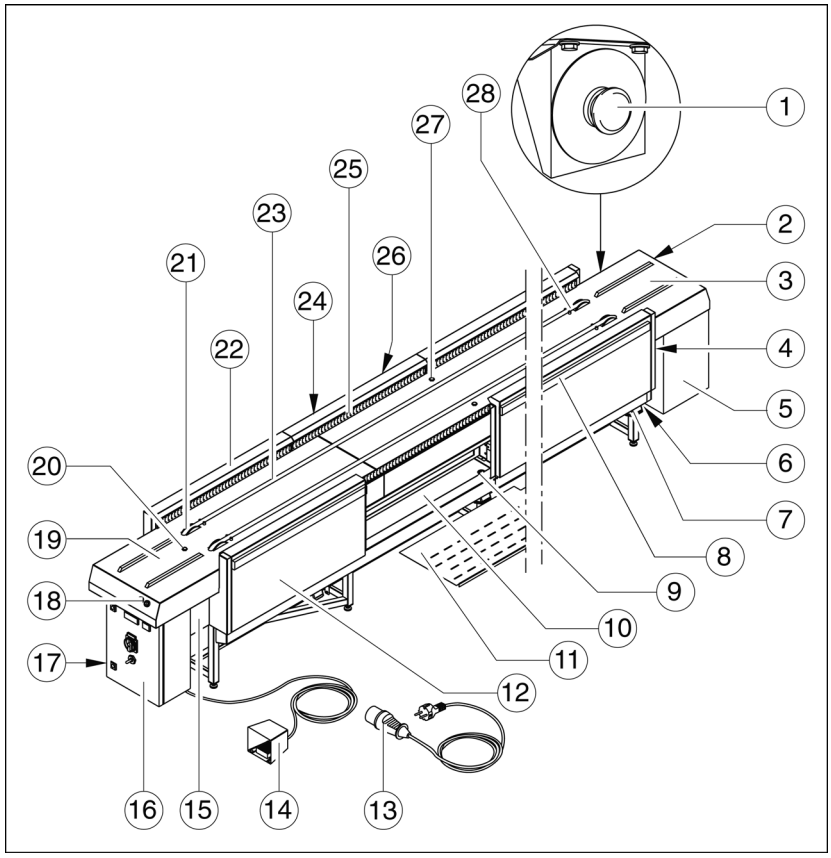
  If the round-belt is tensioned too tightly, turn the Allen key anticlockwise until it is tensioned correctly.



- Remount the cover cap on the opening for adjustment.
- Proceed in exactly the same way for the round-belt located opposite.

Operation

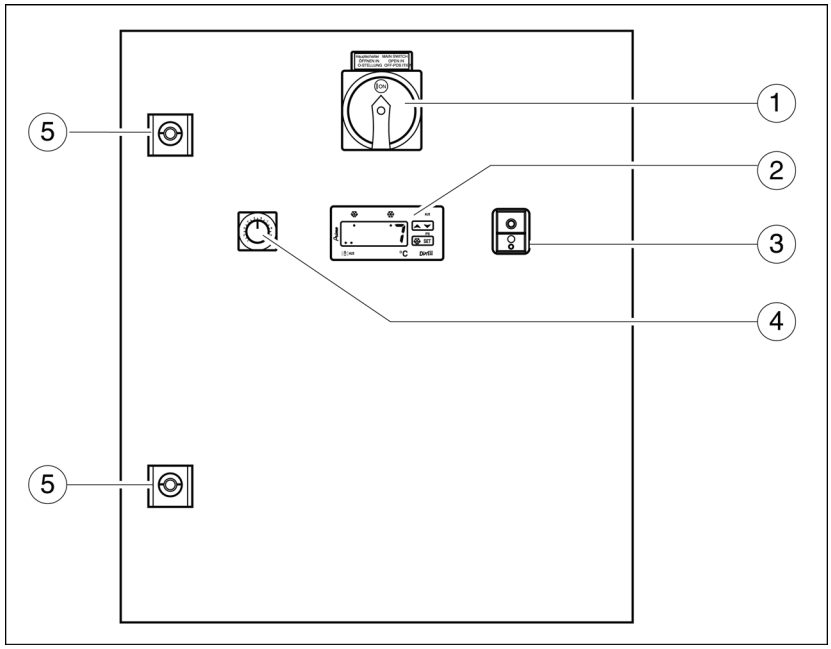
Unit overview



(1) Emergency-Stop switch
(2) On/Off button for round-belt conveyor running (tray transport, optional)
(3) Tray return area
(4) Connection to central refrigeration system provided by customer or integrated refrigeration unit
(5) Integrated refrigeration unit (optional)
(6) Central condensation-water drain
(7) Socket outlets (number and positioning optional)
(8) Bumper rail profile (optional)
(9) Condensation-water drain for cooling module
(10) Condensation-water catch tray for cooling module
(11) Drip plate of cooling module (below the evaporator)
(12) Side panelling
(13) Adapter cable with Schuko plug on CEE coupling (optional)
(14) Foot switch for round-belt conveyor running (tray transport)
(15) Emergency-Stop switch (optional)
(16) Switch cabinet
(17) Fault-current protective device (residual-current circuit breaker in switch cabinet, optional)
(18) On/Off button for round-belt conveyor running (tray transport)
(19) Tray removal area
(20) Reflex light sensor
(21) Deflection roller (round-belt conveyor)

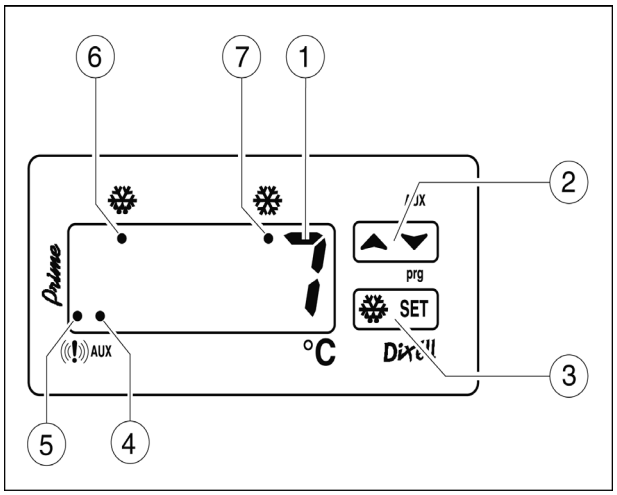
(22) Side panelling
(23) Round-belt
(24) Sealing plate
(25) Air grille
(26) Bracket for data logger (in unit interior, optional)
(27) Opening for adjustment
(28) Guide for round-belt

Switch cabinet – overview



(1) Main switch
(2) Temperature control of cooling
(3) On/Off switch for cooling
(4) Speed control of round-belt conveyor
(5) Door lock

Temperature regulation – overview



(1) Temperature display:
shows the actual temperature in the transport area, setpoint temperature, minimum/maximum temperatures for temperature undershoot/overshoot, duration of a temperature undershoot/overshoot and information messages.

(2) Toggle button "Up/Down arrow":
increases/decreases parameter values.

(3) Button rocker "Manual defrost/SET":
starts manual defrosting/starts programming mode.

(4) "AUX" LED:
no function.

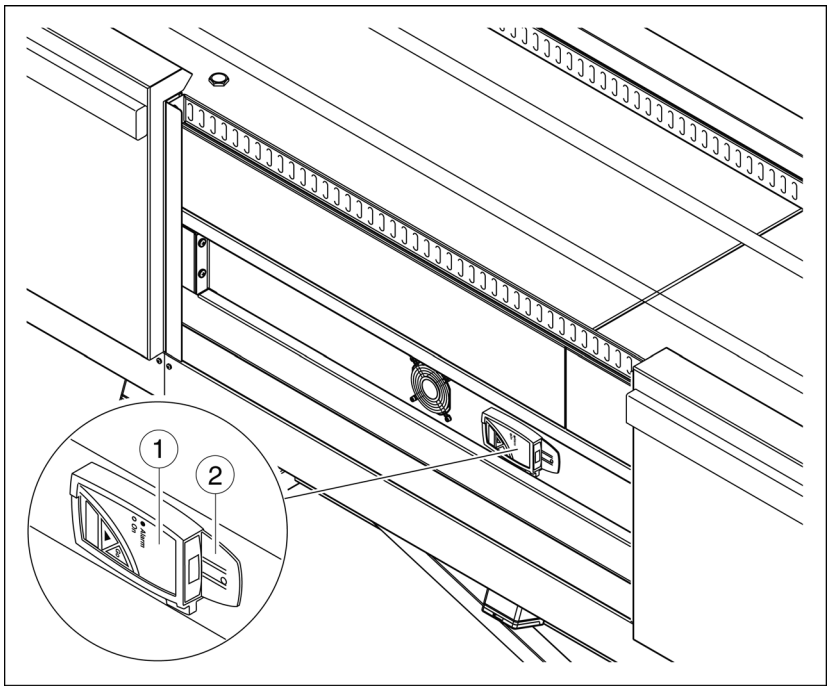
(5) "Alarm" LED:
illuminates when unit drops below or exceeds the setpoint.

(6) "Defrosting active" LED:
illuminates while defrosting.

(7) "Refrigeration unit in operation" LED:
lights up while cooling.

Overview of data logger

Unit model with data logger



(1) Recorder
(2) Holder

A data logger records the actual temperature in the transport area at specified time intervals. This enables the temperature at critical points in the operating process to be documented in accordance with the HACCP concept (Hazard Analysis Critical Control Points).

The data logger consists of the following components:

- Recorder
- Data read-out component (infrared interface)
- Connection cable (data read-out component to PC)
- Programming and read-out software

☞ Observe the operating manuals of the data logger prior to installation and commissioning. The recommended measuring rate for the documentation on the food distribution belt is 1 minute. With the measuring rate of 1 min., the memory capacity is sufficient for 33 days.

↳ "Testo 177" operating manual.
↳ "Software ComSoft 3 Basic" operating manual.

☞ The bracket for the data logger is mounted on the second cooling module on the left-hand side seen from the switch cabinet. The bracket is fastened horizontally so that the data logger can be taken out of the bracket from the side.

↳ Chapter "Removing unit components" on page 38.

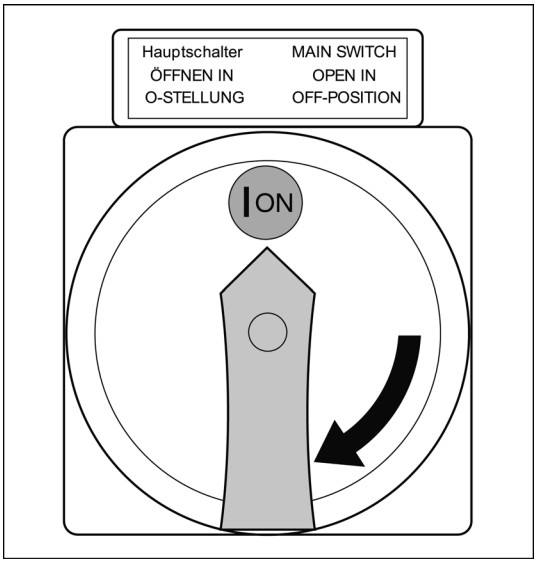
Switching unit on and off

Switching the unit on

☞ The On/Off button for round-belt conveyor running, the On/Off button for the cooling and socket outlets for peripheral units are also supplied with power via the main switch.

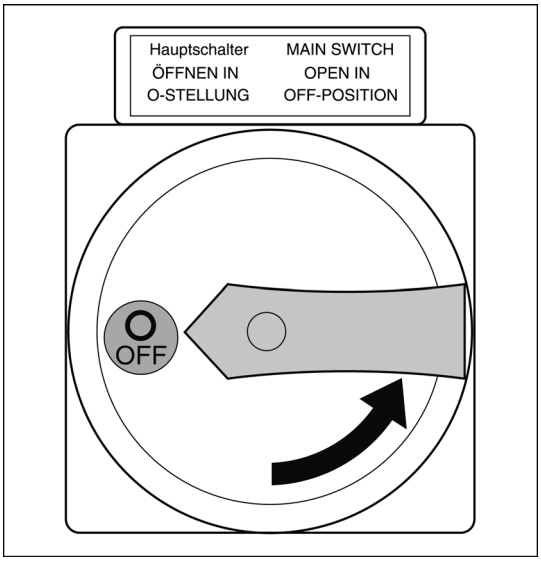
✓ Unit connected to power supply

➨ Set main switch to "1".



Switching the unit off

➨ Set main switch to "0".

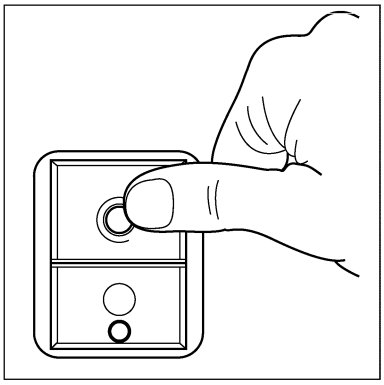


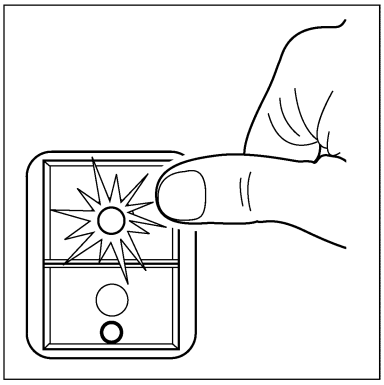
Switching cooling on and off

Switching on cooling

☞ The temperature control is only functional if the cooling is switched on.

➨ Start cooling with the On/Off switch of the cooling (on switch cabinet).
The operation indicator LED illuminates.





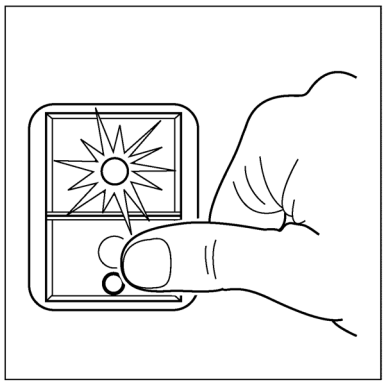
"---" appears briefly in the display of the temperature control

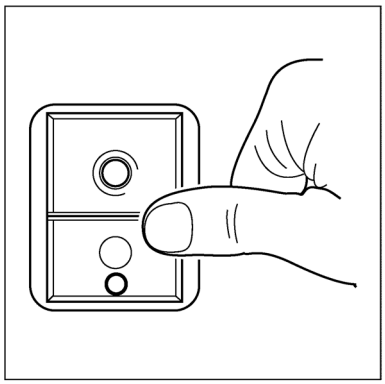
The current temperature in the transport area is then displayed.

The transport area will now be cooled down.

Switching off refrigeration

➨ End the cooling mode with the cooling On/Off switch.
The operation indicator LED goes out.





Setting the setpoint temperature

☞ When the unit is switched on, the standard display shows the actual temperature.

Displaying setpoint temperature

☞ The setpoint temperature is set to +7 °C at the factory. If too low a temperature is set this will result in the refrigeration unit running permanently (as will also happen when the ambient temperature is too high). Possible consequences:

- Increased icing on the evaporator
- More frequent defrosting necessary
- Increased energy consumption

✓ Unit connected to power supply

✓ Main switch set to "1"

✓ Cooling is switched on

✓ The actual temperature is shown in the display

SET

➨ Press the "SET" button briefly.
Setpoint temperature is displayed. The actual temperature in the transport area appears again after approx. 5 sec. or if the "SET" button is pressed again.

Changing the setpoint temperature

✓ Unit connected to power supply

✓ Main switch set to "1"

✓ Cooling is switched on

SET

➨ Press and hold the "SET" button for approx. 2 sec.
The setpoint temperature is displayed and the "Refrigeration unit in operation" indicator LED flashes.

➨ Use the "Up arrow" button to raise the setpoint temperature.

– or –

➨ Use the "Down arrow" button to lower the setpoint temperature.

☞ If the "Up arrow" or "Down arrow" button is pressed and held, the temperature setting changes continuously. The rate of change increases when the "Up arrow" or "Down arrow" button is pressed down longer.

SET

➨ To save the setpoint temperature, press the "SET" button briefly.

– or –

Wait approx. 5 sec.
The setpoint temperature is saved, the "Refrigeration unit in operation" indicator LED stops flashing and lights up when the unit is cooling. The actual temperature in the transport area is displayed.

Locking and unlocking keyboard

Locking keyboard

☞ The keyboard lock protects against unauthorised access to cooling, e.g. setting of the setpoint temperature.

☞ Only the following functions can be executed when the keyboard is locked:

- Displaying setpoint temperature
- Acknowledging alarm signal
- Displaying minimum/maximum temperature in case of alarm

➨ Press and hold both buttons of the toggle button "Up/Down arrow" for approx. 3 sec.
The "PoF" display appears briefly. The actual temperature is then displayed.

Unlocking keyboard

➨ Press and hold both buttons of the toggle button "Up/Down arrow" for approx. 3 sec.
The "Pon" display appears briefly. The keyboard is unlocked. The actual temperature is then displayed.

Pre-cooling unit

i To prevent the pre-cooled food from warming up during portioning, the unit must be pre-cooled for approx. 20 minutes first.

✓ Unit connected to power supply

✓ Main switch set to "1"

➨ Start cooling with the On/Off switch of the cooling approx. 20 minutes before portioning the food.

↳ Section "Switching cooling on and off" on page 19.

➨ Change the setpoint temperature if necessary.

↳ Section "Setting the setpoint temperature" on page 19.

i When the refrigeration system is running, the "Refrigeration unit in operation" LED will be illuminated. As soon as the set setpoint temperature is reached, the cooling switches off until the temperature has risen by a preset amount. During this period the "Refrigeration unit in operation" LED will be off.

i As soon as the cooling is switched on, the fans of the cooling run continuously.

Starting/ending round-belt conveyor running

Starting round-belt conveyor running

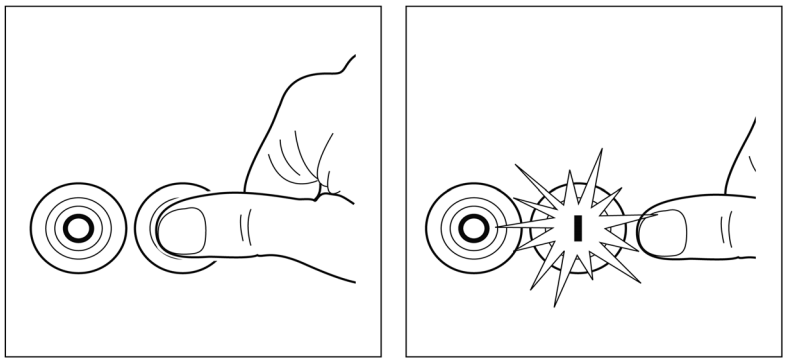
☞ The On/Off buttons for the round-belt conveyor running are located at the end of the round-belt conveyor over the switch cabinet. An additional On/Off button at the start of the round-belt conveyor (below the tray return area) and/or an additional foot switch are also available as an option. The foot switch only switches on the round-belt conveyor if it has been started with an On button.

☞ A reflex light sensor is located in the tray removal area. The round-belt conveyor running stops automatically or cannot be started if the reflex light sensor is covered.

✓ Unit connected to power supply

✓ Main switch set to "1"

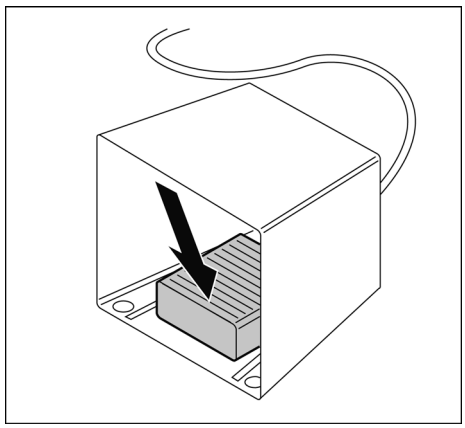
➨ Start round-belt conveyor with green On button.
The round-belt conveyor runs.
The green LED illuminates.



Unit model with foot switch

✓ Round-belt conveyor running was started with the green On button and stopped with the foot switch.

➨ Press foot switch.



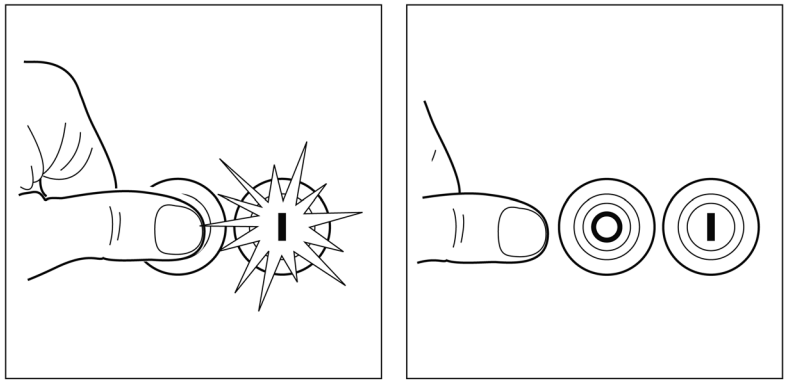
The round-belt conveyor runs.

Ending round-belt conveyor running

☞ The On/Off buttons for the round-belt conveyor running are located at the end of the round-belt conveyor over the switch cabinet.

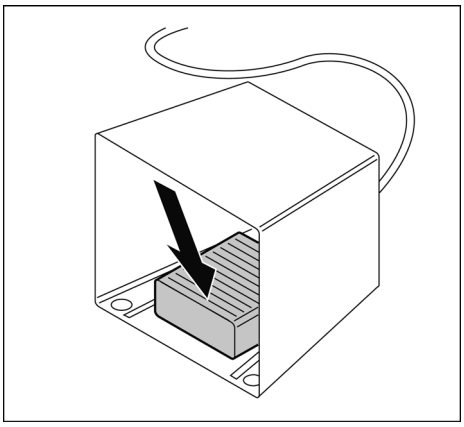
☞ An additional On/Off button at the start of the round-belt conveyor (below the tray return area) and/or an additional foot switch are also available as an option.

➨ End round-belt conveyor running with the red Off button.
The round-belt conveyor stops.



Unit model with foot switch

➨ Press foot switch.



The round-belt conveyor stops.

Operating Emergency-Stop switch

Actuating Emergency-Stop switch

☞ The Emergency-Stop switch is located at the start of the round-belt conveyor on the side below the tray return area in the standard configuration. An additional Emergency-Stop switch can be connected on the side below the tray removal area at the end of the round-belt conveyor as an option.

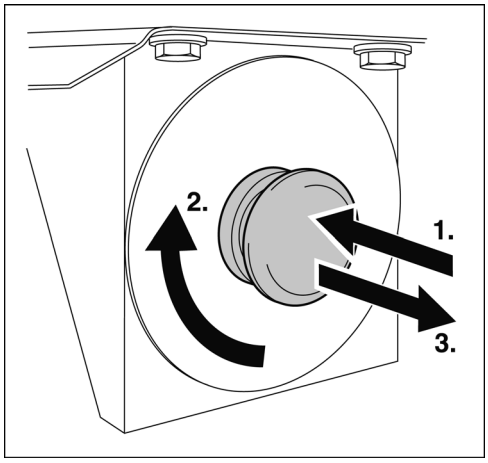
☞ The Emergency-Stop switch may only be actuated in situations in which a continuous operation can immediately lead to unit damage or even to injuries.

➨ Press Emergency-Stop switch.
The round-belt conveyor stops. The LED of the green On button for round-belt conveyor running goes out. Unit, cooling and socket outlets for peripheral units continue to be supplied with power.

Releasing Emergency-Stop switch

✓ Reason for Emergency Stop or malfunction determined and fault eliminated

➨ Press Emergency-Stop switch (1.), turn clockwise while pressed (2.) and pull out again (3.).



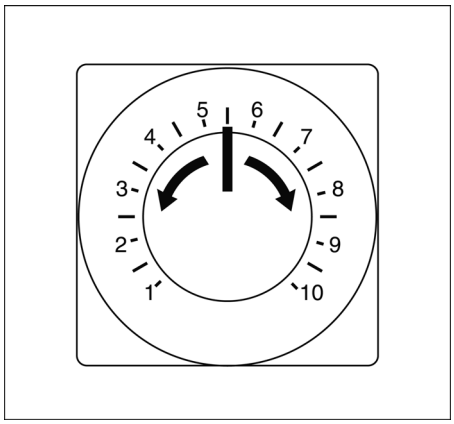
The Emergency-Stop switch released.

The round-belt conveyor can be restarted with the On button for round-belt conveyor running.

Adjusting speed of round-belt conveyor

☞ The speed of the round-belt conveyor is steplessly adjustable from 2.5 to 12 m/min as standard.

➨ Set the desired speed of the round-belt conveyor on the speed control.



Carrying out food portioning

☞ To portion food, the system components filled with dishes and food (stacking units and food distribution trolleys) are moved up to the food distribution conveyor from the side. B.PRO recommends using cooled stacking units and cooled food distribution trolleys to prevent an interruption in the cooling chain during portioning.

☞ If the round-belt conveyor has been started with the green On button, the round-belt conveyor can be stopped and restarted during portioning with the foot switch (optional).

✓ Unit connected to power supply

✓ Main switch set to "1"

✓ Cooling is switched on

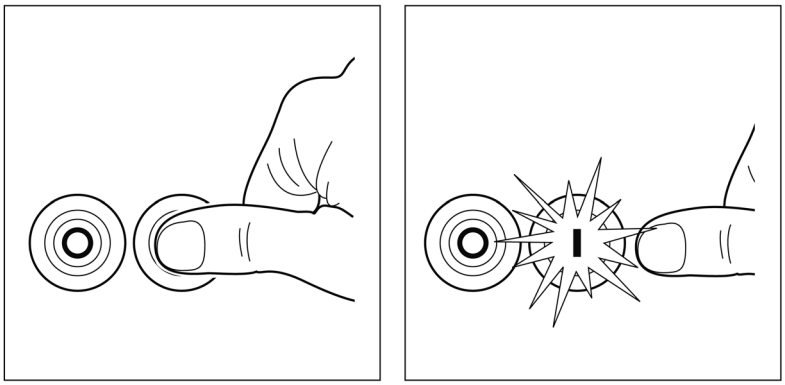
✓ Dishes and food pre-cooled

✓ Pre-cool the unit for about 20 minutes

➨ Move the stacking units and food distribution trolleys up to the desired position on the side of the food distribution conveyor.

➨ Connect the stacking units and food distribution trolleys to the power supply.

➨ Start round-belt conveyor with green On button.
The round-belt conveyor runs.
The green LED illuminates.



➨ Place trays on the tray return area.

➨ Load trays on food distribution conveyor with dishes and food.

Checking temperature deviations

☞ If the actual temperature deviates from the setpoint by a certain amount (±5 °C), this temperature overshoot/undershoot is registered by the temperature control. In case of temperature deviations which persist for longer than 5 min., the "Alarm" LED lights up and a periodic signal sounds. Either "HAL" (temperature overshoot) or "LAL" (temperature undershoot) and the actual temperature flash in an alternating fashion in the display.

☞ After cooling is activated, no temperature overshoot or undershoot of the setpoint is detected for 50 min. to prevent an alarm from being triggered during the pre-cooling phase.

Acknowledging alarm signal

☞ If the actual temperature reaches the specified temperature range around the setpoint again during an alarm, then only the display of the actual temperature appears and the acoustic alarm signal is ended. The "Alarm" LED continues to light up.

➨ Press any button.
The acoustic alarm signal is ended and "rST" appears in the display. Either "HAL" (temperature overshoot) or "LAL" (temperature undershoot) and the actual temperature flash in an alternating fashion in the display.

Displaying temperature deviations

✓ "Alarm" LED lights up

➨ Press the "Up arrow" button briefly

– or –

Press the "Down arrow" button briefly.
"HAL" appears briefly in the display for a temperature overshoot, and "LAL" for a temperature undershoot. Then the display of the minimum or maximum temperature which has occurred, followed by the duration of the temperature deviation (in h:min), appears for approx. 2 sec.

The actual temperature display appears again.

Resetting a saved alarm

☞ The alarm can only be reset if the temperature overshoot/undershoot is no longer in effect.

✓ The actual temperature is within the preset temperature range (±5 °C) around the setpoint

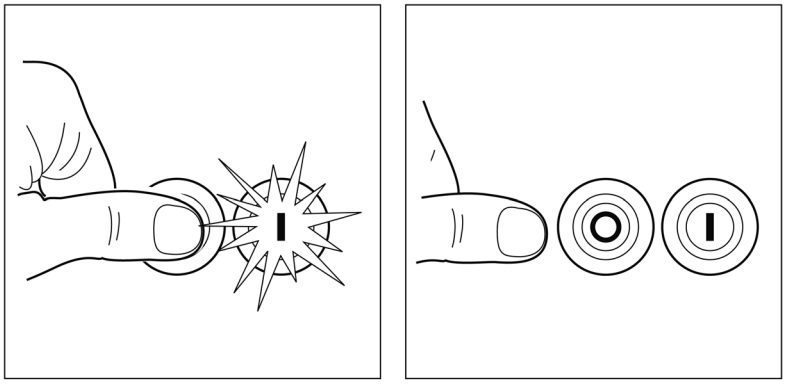
✓ Alarm acknowledged

➨ Press and hold the "SET" button until the display of the actual temperature appears and the "Alarm" LED goes out.

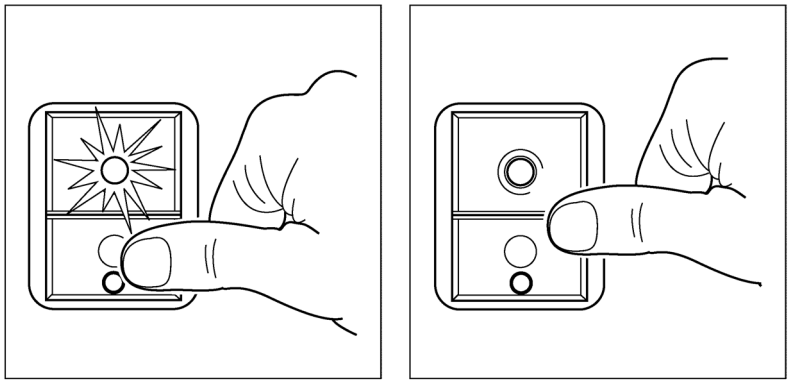
Shutting down

Shutting unit down

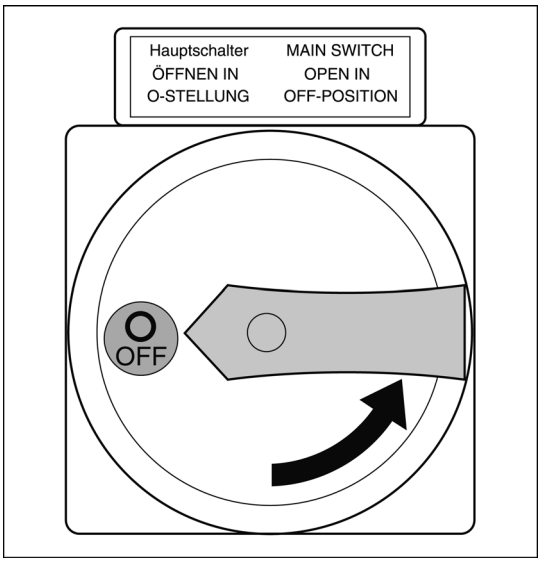
- Shut down all units connected to the socket outlet strip.
  ↳ See the operating instructions of the units.
- End round-belt conveyor running with the red Off button.
  The round-belt conveyor stops.



- Switch off end cooling with the On/Off switch.
  The operation indicator LED goes out.



➨ Set main switch to "0".



Troubleshooting

No mains voltage on unit

Cause	Action
Main switch switched off (set to "0" position).	➨ Switch on main switch. ↳ Chapter "Switching unit on and off" on page 18.
Customer's connection interrupted.	➨ Check customer's connection.
Customer-accessible fuse (building fuse) is defective.	➨ Check customer-accessible fuse and replace it if necessary.
Unit electronic system is defective.	➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.

"Refrigeration unit in operation" LED lights up, but unit does not refrigerate (sufficiently)

Cause	Action
Setpoint temperature is set too high.	➨ Set a lower setpoint temperature. ↳ Section "Setting the setpoint temperature" on page 19.
Unit is exposed to a (strong) draft.	➨ Stop the drafts.
High ambient temperature.	➨ Have a refrigeration technician change the refrigeration parameters of the temperature control.
Evaporator of one or more cooling modules is iced up.	➨ Defrost unit. ↳ Section "Defrosting the unit" on page 37.
Temperature control is in an irregular condition.	➨ Switch off refrigeration briefly. ↳ Chapter "Switching off refrigeration" on page 19. ↳ Chapter "Switching on cooling" on page 19. ➨ If this does not solve the problem and the causes we have already mentioned can be ruled out, notify an authorised repair company. ↳ Chapter "Repairs" on page 50.

Cause	Action
"P1" displayed on the temperature control of the refrigeration unit (the thermostat sensor is defective).	➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.
Refrigerating unit or central refrigeration system has failed or refrigeration line is damaged.	➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.
Unit electronic system is defective.	➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.

Acoustic alarm of temperature control ("HAL"display) – temperature overshoot

Cause	Action
Unit is exposed to a (strong) draft.	➨ Acknowledge alarm signal. ↳ Chapter "Acknowledging alarm signal" on page 27. ➨ Stop the drafts.
High ambient temperature.	➨ Acknowledge alarm signal. ↳ Chapter "Acknowledging alarm signal" on page 27. ➨ Have a refrigeration technician change the refrigeration parameters of the temperature control.
Evaporator of one or more cooling modules is iced up.	➨ Acknowledging alarm signal ↳ Chapter "Acknowledging alarm signal" on page 27. ➨ Defrost unit. ↳ Section "Defrosting the unit" on page 37.
Refrigerating unit or central refrigeration system has failed or refrigeration line is damaged.	➨ Acknowledging alarm signal ↳ Chapter "Acknowledging alarm signal" on page 27. ➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.

Acoustic alarm of temperature control ("LAL"display) – temperature undershoot

Cause	Action
Refrigeration unit does not switch off when setpoint temperature is reached.	➨ Acknowledge alarm signal. ↳ Chapter "Acknowledging alarm signal" on page 27. ➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.

"PoF" appears in display of temperature control when a button is pressed

Cause	Action
Keypad locked.	➨ Unlock keypad. ↳ Section "Locking and unlocking keyboard" on page 20.

Food distribution conveyor does not feed – motor is running

Cause	Action
Round-belt conveyor slips.	➨ Stop round-belt conveyor. ↳ Chapter "Starting/ending round-belt conveyor running" on page 22. ➨ Remove trays/objects from round-belt conveyor. ➨ Tension round-belts. ↳ Section "Adjusting round-belts" on page 12.

Food distribution conveyor does not feed – motor is not running, green LED of On button lights up

Cause	Action
Reflex light sensor covered, soiled or defective.	➨ Uncover or clean reflex light sensor, or have it replaced by an electrician.
Emergency-Stop switch actuated.	➨ Determine reason for Emergency Stop or malfunction and eliminate fault. ➨ Release Emergency-Stop switch. ↳ Chapter "Operating Emergency-Stop switch" on page 24.
Motor is overloaded.	➨ Switch off round-belt conveyor running at On/Off button. ➨ Interrupt operation for 30 minutes. ➨ Check tension of round-belts and reduce if necessary. ↳ Section "Adjusting round-belts" on page 12.
Round-belt conveyor running switched off with foot switch.	➨ Switch on round-belt conveyor running with foot switch. ↳ Chapter "Starting/ending round-belt conveyor running" on page 22.

Foot switch does not start round-belt conveyor running

Unit model with foot switch

Cause	Action
Round-belt conveyor running switched off with On/Off button.	➨ Switch on round-belt conveyor running with On/Off button. ↳ Section "Starting/ending round-belt conveyor running" on page 22.
Reflex light sensor covered or soiled.	➨ Uncover or clean reflex light sensor.
Reflex light sensor or unit electronics defective	➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.

Trays jam

Cause	Action
Round-belts have different tensions.	➨ Stop round-belt conveyor running. ➨ Remove trays/objects from round-belt conveyor. ➨ Check tension of round-belts and correct if necessary. ↳ Section "Adjusting round-belts" on page 12.

No mains voltage at unit socket outlets

Cause	Action
Main switch switched off (set to "0" position).	➨ Switch on main switch. ↳ Section "Switching unit on and off" on page 18.
Fault-current protective device triggered.	➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.
Customer's connection interrupted.	➨ Check customer's connection.
Customer-accessible fuse (building fuse) is defective.	➨ Check customer-accessible fuse and replace it if necessary.
Unit electronic system is defective.	➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.

Corrosion of stainless steel parts

Cause	Action
Incorrect handling/care.	➨ Remove areas of corrosion. ↳ Section "Removing areas of corrosion on stainless steel" on page 47. ➨ Ensure proper handling/care.

The unit has external damage

Cause	Action
Damage during transport, change of location or other external influences	➨ Shut down unit. ↳ Chapter "Shutting down" on page 28. ➨ Secure the unit from being started up accidentally. ➨ Notify a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 50.

Cleaning and care

Stainless steel

Surfaces made of stainless steel must be kept clean, dry and open to the air at all times.

Regularly remove lime, grease, starch and protein coatings by cleaning. Corrosion due to lack of air contact can occur under these coatings.

Do not allow concentrated acids, spices, salts etc. to come into extended periods of contact with parts made of stainless steel. Contact with these substances can cause corrosion. Acid fumes produced during tile cleaning can also lead to corrosion.

Do not damage the surface of stainless steel, especially with other metals. Residues of other metals may form chemical compounds which can cause corrosion.

Avoid contact with iron and steel at all times. Extreme corrosion can result when stainless steel comes into contact with iron (e.g. steel wool, wire scraps, iron-fortified water).

Cleaning and defrosting frequencies

Cleaning frequency

The outside and inside of the unit must be thoroughly cleaned after every use.

The condensation water must be drained off daily.

Defrosting frequency

The unit defrosts automatically every 4 hours. You will not need to carry out manual defrosting as well unless you see a layer of ice on the evaporators of the cooling modules. In general, this will not happen unless the unit is being run under extreme environmental conditions (for example, high ambient temperatures and/or high air humidity) for a longer period of time.

Cleaning methods

The prescribed cleaning method for routine daily cleaning is to wipe the unit over with a damp cloth.

Persistent soiling may be removed with a brush (synthetic or natural bristles).

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

☞ Do not use a steam jet unit or high-pressure cleaner.

Cleaning agents

Cleaning agents for light soiling:

- Commercially available cleaning agents in an aqueous solution
- Soft cleaning cloth
- B.PRO microfibre cleaning cloth (use with water only)

Cleaning agents for heavy soiling:

- Commercially available stainless steel cleaning agents, e.g. DeepClean Stainless Steel Synthetic components must not be cleaned with stainless steel cleaning agents as otherwise this will scratch the surface.

Do not use **any** of the following cleaning agents for the round-belt conveyor (damage to material!):

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

Cleaning round-belt conveyor

☞ The round-belt conveyor can be cleaned while running.

⚠ **Warning!**

Danger of pinching in draw-in area of round-belts!
If cleaning is carried out during round-belt conveyor running, or if round-belt conveyor running is accidentally started, there is a danger of pinching for body parts and loose pieces of clothing in the draw-in area of the round-belts.

➨ Maintain a sufficient distance to the draw-in of the round-belts.

➨ Clean the round-belt conveyor with the cleaning methods and cleaning agents described above.

Defrosting the unit

☞ The unit defrosts automatically every 4 hours. You will not need to carry out manual defrosting as well, except in the following circumstances:

- The actual temperature slowly creeps higher and higher above the setpoint temperature which was set
- There is considerable icing up of the evaporator fins in the cooling modules

☞ Usually it will suffice to allow the unit to defrost (30 minutes) by starting manual defrosting. It may occasionally be necessary to switch off the unit for defrosting for approx. 24 hours. Both cases are described in more detail below.

➨ To start defrosting manually, press the "Defrost" button for approx. 2 seconds.
Cooling is stopped and defrosting starts. The "Defrosting "LED lights up.

i Defrosting is supported with the fans.

i To interrupt manual defrosting, it must be ended via the On/Off switch for cooling.

i Following the programmed defrosting period (30 minutes), the unit automatically switches back into the cooling mode. Defrosting has now been completed.

☞ If defrosting does not cure the problem (one of the symptoms described above is still present), you will need to shut down cooling for an extended period. The procedure to follow in this case is described below:

➨ End the cooling mode with the cooling On/Off switch.
Refrigeration is ended.

➨ Leave cooling switched off for **24 hours**.

➨ Drain off condensation water if necessary.
↳ Section "Draining condensation water" on page 46.

➨ Clean the unit.
↳ Section "Cleaning the unit from the outside" on page 37.
↳ Section "Cleaning unit interior" on page 47.

Cleaning the unit from the outside

➨ Shut down unit.
↳ Chapter "Shutting down" on page 28.

➨ Clean unit with cleaning methods and cleaning agents described above.

➨ After cleaning with a stainless steel cleaning agent, rinse with water and rub dry.

Removing unit components

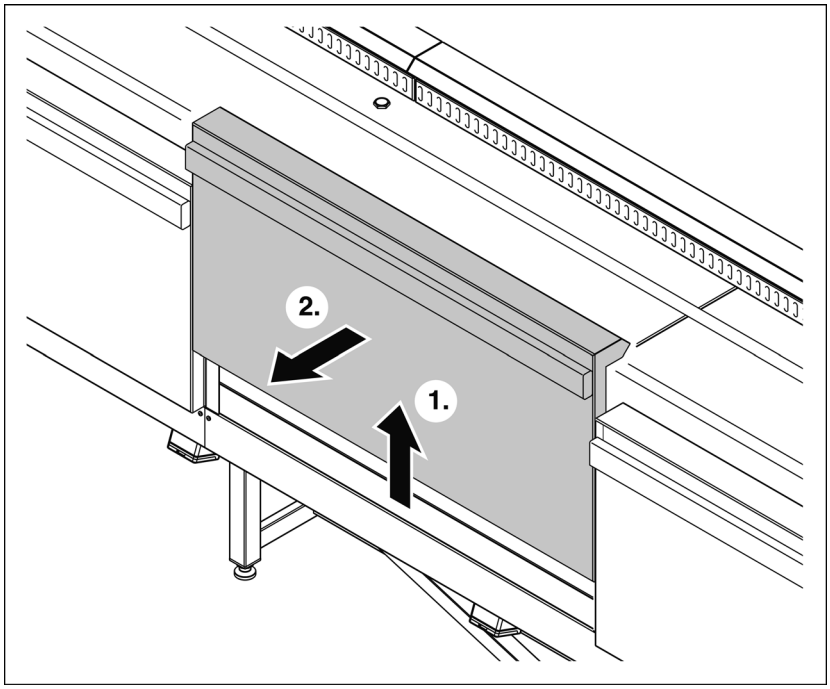
☞ Depending on the cleaning work to be carried out, the following unit components must be removed from each cooling module:

- Draining the condensation water and cleaning the condensation-water catch tray: side panelling, sealing plate
- Cleaning the unit interior: side panelling, sealing plate, air grille
- Cleaning the evaporator area: side panelling, sealing plate, drip plate

✓ Unit has been shut down

Removing unit components

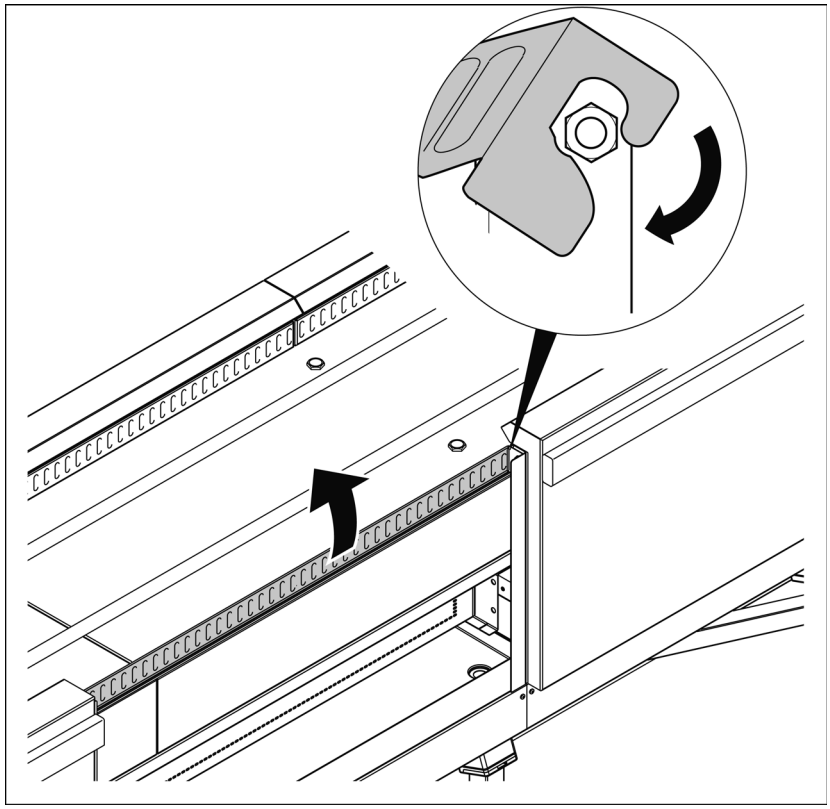
➨ On both sides of the cooling module: Slightly raise side panelling (1.) and unhook (2.).



Removing air grille

✓ Side panelling removed

➨ On both sides of the cooling module: Tilt air grille toward round belt and take off upward at an angle.



Removing sealing plates

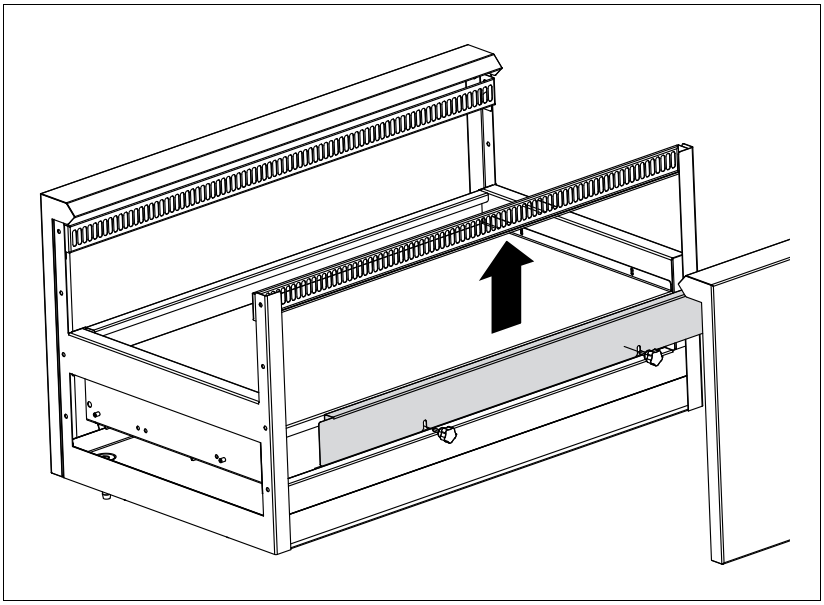
☞ The lower sealing plate is located (seen from the switch cabinet) on the left-hand side of the cooling module.

☞ The upper sealing plates are located on both sides of the cooling module.

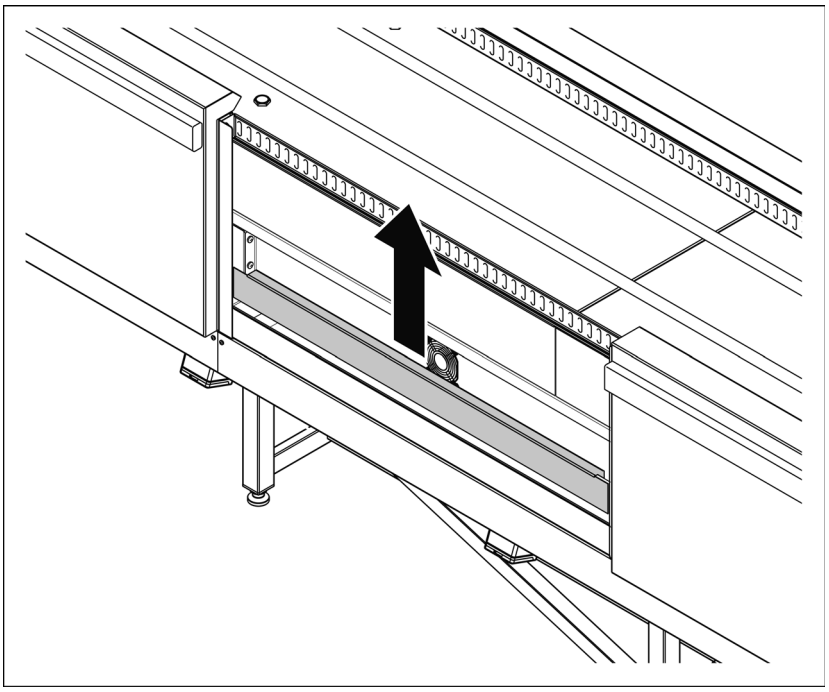
✓ Side panelling removed

➨ Unscrew 2 screws on each upper sealing plate.

➨ Pull the upper sealing plate slightly upward and remove.



➨ Pull the lower sealing plate slightly upward and remove.



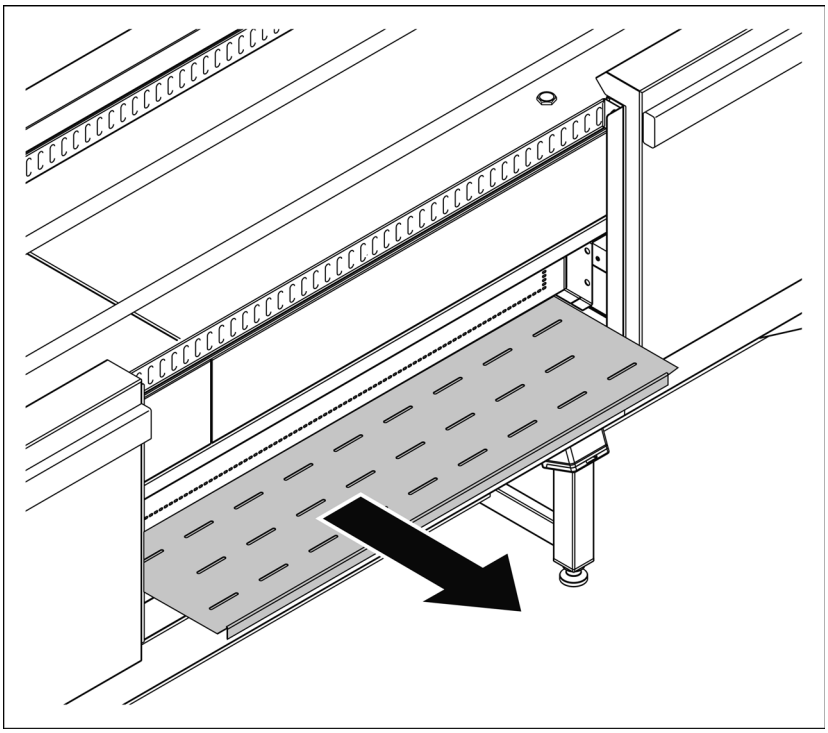
Removing drip plate

☞ During additional cleaning of the evaporator area, the drip plate (seen from the switch cabinet) on the right-hand side of the cooling modules can be removed.

⚠ Warning!

Sharp edges on evaporator fins!
Danger of being cut in the area of the evaporator fins.
- ➨ Wear protective gloves.
- ➨ Maintain a sufficient distance to the evaporator fins.

- ➨ Slightly raise the drip plate on the side and pull out toward the front.



Mounting unit components

✓ Unit has been shut down

Mounting drip plate

☞ The drip plate is (seen from the switch cabinet) is pushed in on the right-hand side of the cooling module.

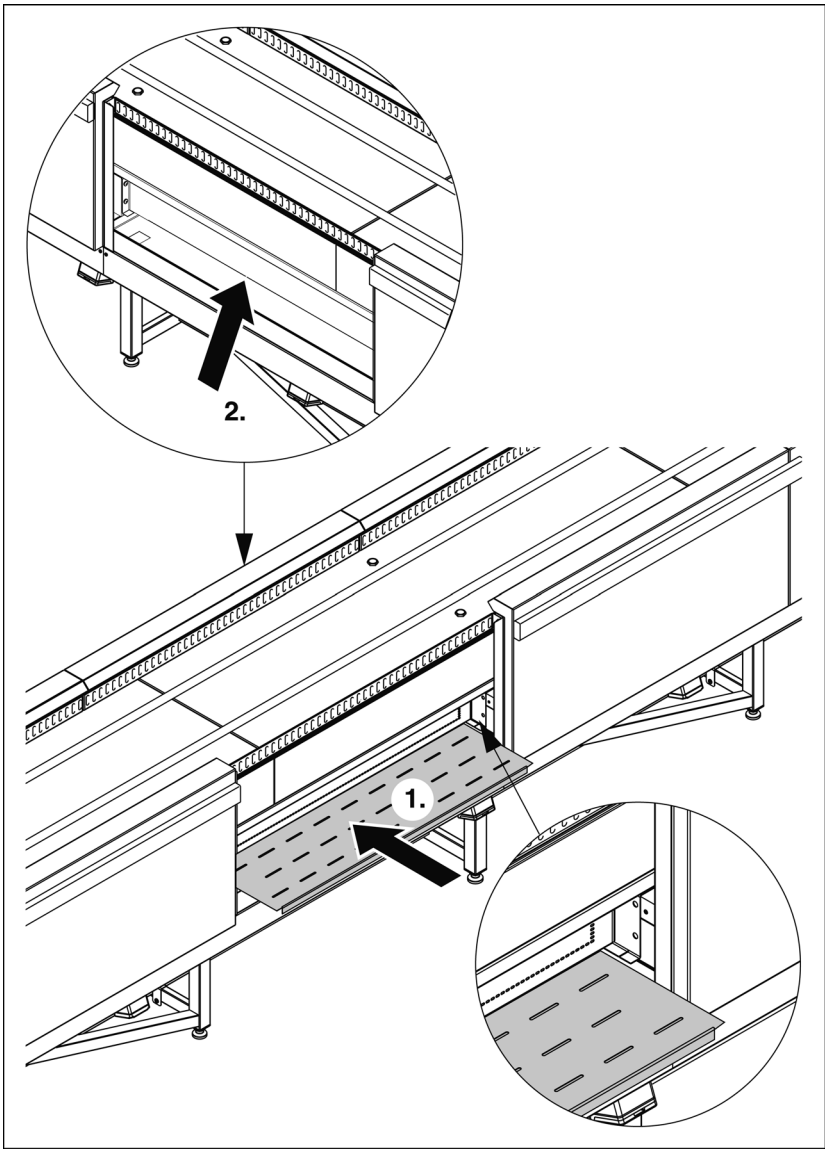
☞ To prevent the drip plate from curving downward while being pushed in, it must be raised somewhat in the middle on the opposite side of cooling module by another person while pushing it in.

✓ Two people

⚠ Warning!

Sharp edges on evaporator fins!
Danger of being cut in the area of the evaporator fins.
- ➨ Wear protective gloves.
- ➨ Maintain a sufficient distance to the evaporator fins.

- Lay the drip plate on the guide and push it in until resistance is felt (1.).
- While the drip plate is being raised somewhat in the middle on the opposite side of the cooling module by another person (2.), raise the drip plate slightly on the side and continue to push it in so that the seam can be pushed into the notch in the guide.

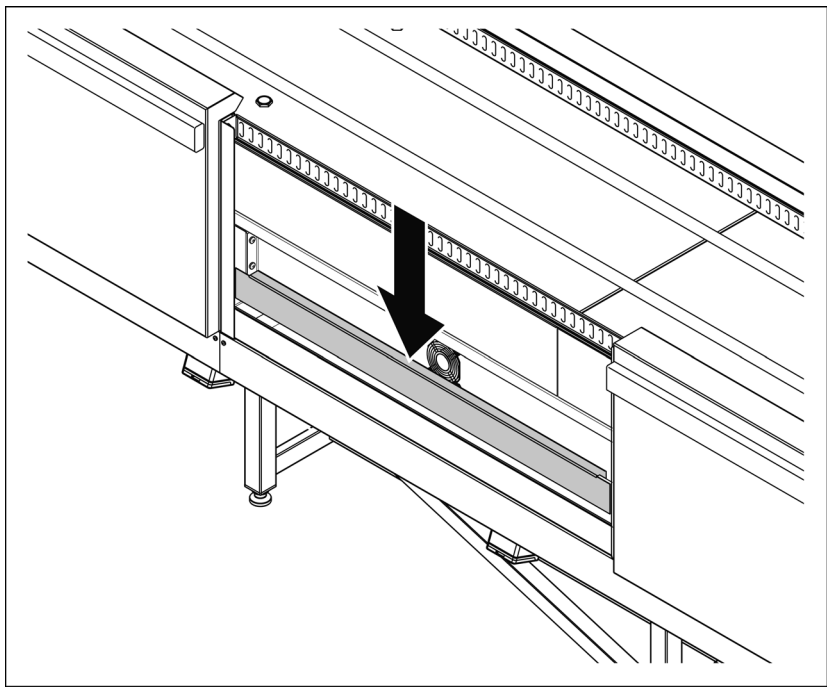


Mounting sealing plates

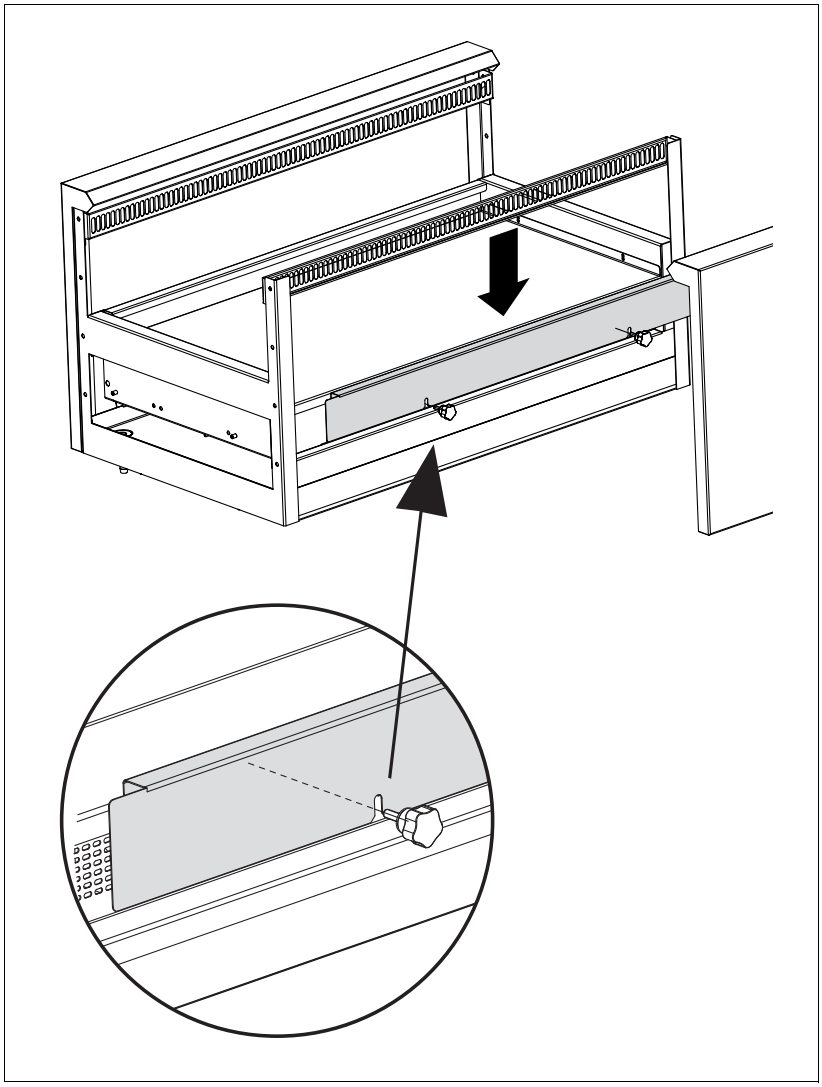
☞ The lower sealing plate is mounted (seen from the switch cabinet) on the left-hand side of the cooling module.

☞ The upper sealing plates are mounted on both sides of the cooling module.

➨ Mount lower sealing plate from above.

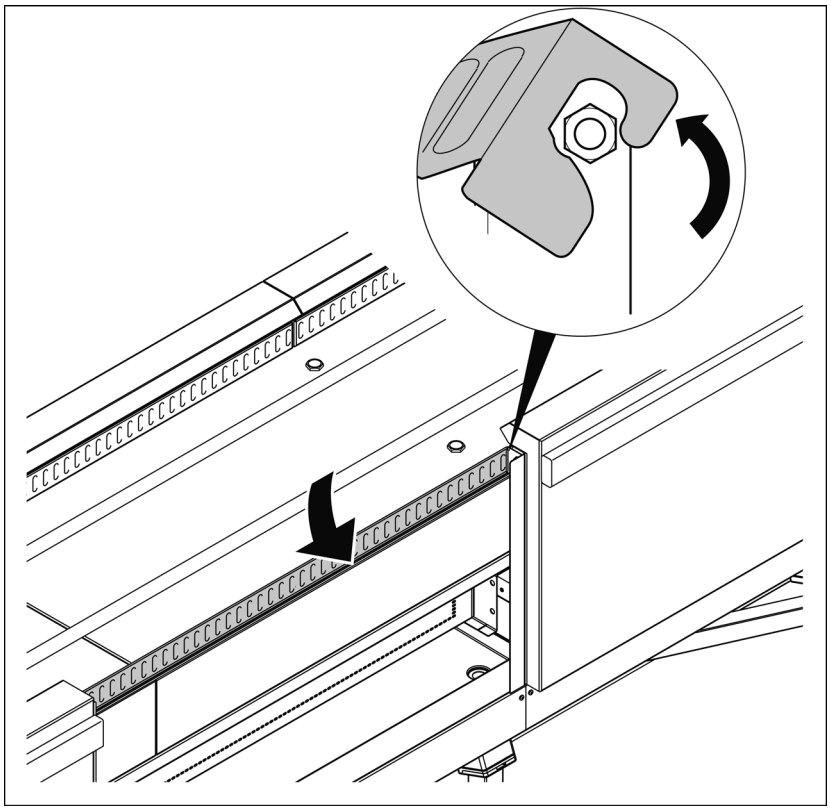


- Mount the two upper sealing plates from above and fix with the two screws.



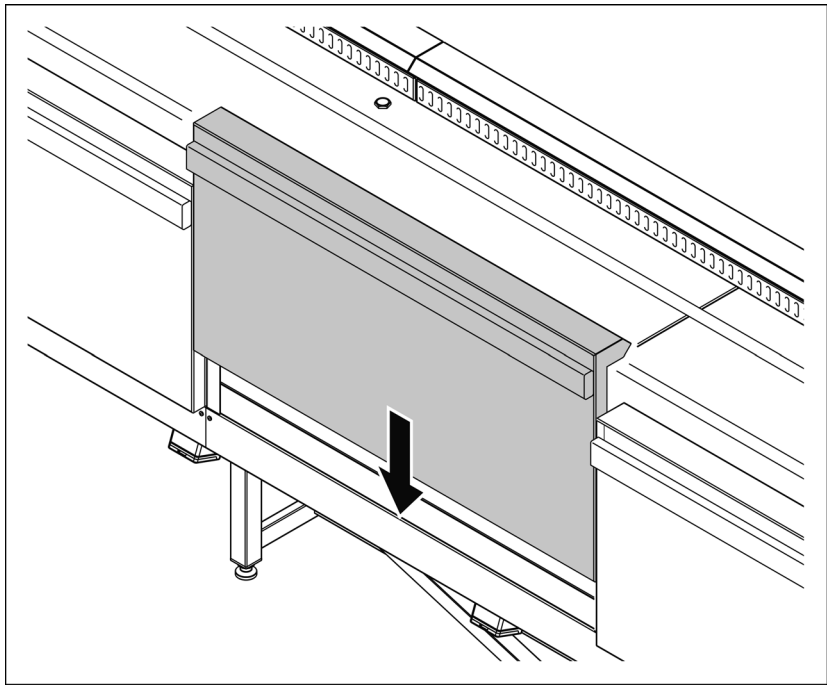
Mounting air grille

➨ On both sides of the cooling module: Hook in air grille.



Mounting side panelling

➨ On both sides of the cooling module: Hook in side panelling.



Draining condensation water

☞ The shut-off cock is located on the drain of the first cooling module (beginning of conveyor).

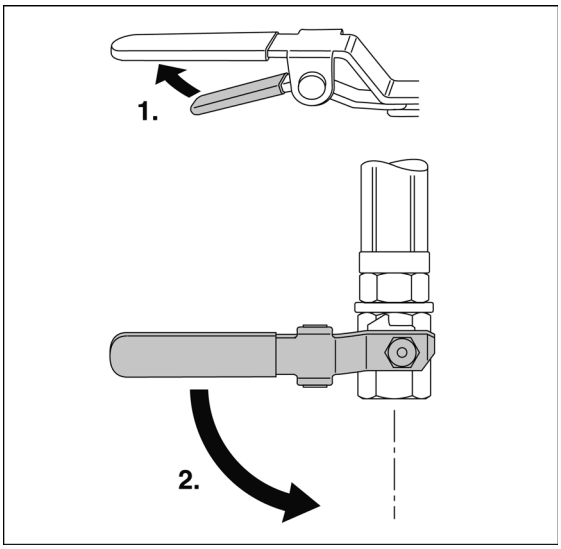
✓ Unit has been shut down

✓ Catch container (e.g. Gastronorm container or bucket) or drain provided by customer available

➨ Remove the side panelling and sealing plates of the cooling modules.
↳ Section "Removing unit components" on page 38.

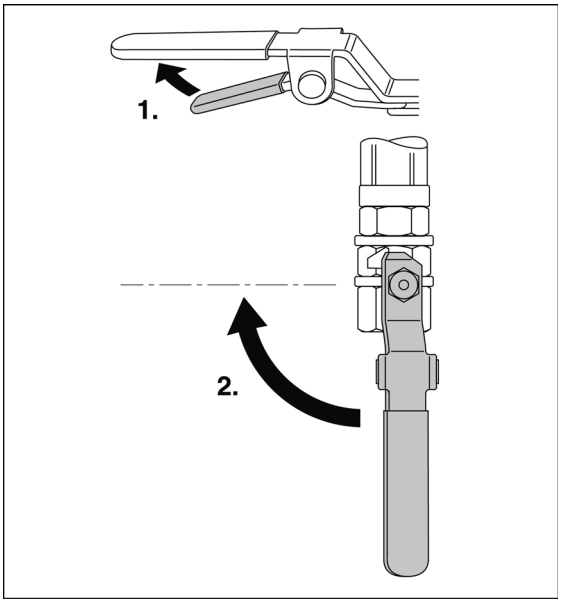
➨ Guide the end of the hose into the catch container or the drain provided by the customer.

➨ To open the shut-off cock, pull detent pawl to lever (1.) and turn lever so that it is parallel to the shut-off cock (2.).



➨ Drain the condensation water.

➨ To close the shut-off cock, pull detent pawl to lever (1.) and turn lever so that it is perpendicular to the shut-off cock (2.).



➨ Rub the condensation-water catch trays dry.

- If necessary, clean the condensation-water catch trays using the cleaning methods and cleaning agents described above.
  - Section "Cleaning methods" on page 35.
  - Section "Cleaning agents" on page 36.
- Remount the side panelling and sealing plates on the cooling modules.
  - Section "Mounting unit components" on page 41.

Cleaning unit interior

✓ Unit has been shut down

- To prevent cleaning water from freezing inside the unit, you should allow the unit to warm up for at least 30 minutes.
- Remove the side panelling, air grille, sealing plate and, if necessary, the drip plate of the cooling modules.
  - Section "Removing unit components" on page 38.

⚠ Warning!

Sharp edges on evaporator fins!
Danger of being cut in the area of the evaporator fins.
- Wear protective gloves.
- Maintain a sufficient distance to the evaporator fins.

- Clean the unit interior and unit components with the cleaning methods and cleaning agents described above.
  - Section "Cleaning methods" on page 35.
  - Section "Cleaning agents" on page 36.
- Rub the unit interior and unit components dry.
- Remount the side panelling, air grille, sealing plate and, if necessary, the drip plate on the cooling modules.
  - Section "Mounting unit components" on page 41.

Removing areas of corrosion on stainless steel

New areas of corrosion

- Ensure that unit has been shut down.
- Remove areas of corrosion with a scouring agent or fine sandpaper.

Older/more extensive areas of corrosion

i The cleaning measures described here for older and more severe areas of corrosion are recommendations of the German industry association for home, heating and kitchen technology (Industrieverband Haus-, Heiz- und Küchentechnik e. V. (HKI)).

☞ The cleaning measures for older and more extensive areas of corrosion may only be carried out by trained personnel in compliance with the existing regulations.

⚠ Warning!

Caustic substances!
The acids used for the removal of areas of corrosion can cause injuries and also caustic damage to objects (e.g. clothing). Contact with the eyes can cause irreparable vision impairment. In the worst case, total loss of sight could result.
- Wear protective clothing (protective eyewear, protective gloves etc.).
- Persons not involved in cleaning must be kept at a distance.

⚠ Warning!

Chemical reactions with aluminium!
The evaporator fins are made of aluminium. Acids can react strongly with aluminium. There is a health risk due to boiling acid and chemical reaction products! Material damage can occur due to the decomposition of the aluminium!

- The following procedures which are described are **not** to be used with aluminium parts of the unit!
- Before treating stainless steel parts, protect all aluminium parts against contact with acid (e.g. splashes).

- Ensure that unit has been shut down.
- Remove areas of corrosion with 2–3 % oxalic acid.
- Use 10 % nitric acid if cleaning with oxalic acid is unsuccessful.

Maintenance

Having the unit regularly maintained

☞ B.PRO recommends regular maintenance of the unit by appropriately trained professionals. Regular maintenance prevents failure of the unit, extends its operating life and contributes to general value retention.

➨ Having unit regularly maintained by appropriately trained experts.

Unit variant with integrated refrigeration unit

➨ Have the refrigeration unit serviced once a year by a specialist company.

Checking tension of round-belts

➨ Check the tension of the round-belts monthly or when trays jam.

↳ Section "Adjusting round-belts" on page 12.

Having periodical electrical safety inspection carried out

➨ At least once every 6 months, have a periodical electrical safety inspection carried out by a professional electrician in accordance with the DIN VDE 0702 series of standards.

Unit variants with fault-current protective device

➨ Have the fault-current protective device checked at least monthly in accordance with BGV A3 or corresponding national specifications by a professional electrician.

Changing cooling parameters

i The refrigeration parameters of the temperature control (such as switching hysteresis) can be modified or reset as required by a refrigeration engineer. Information on setting the temperature control will be found in the separate operating instructions for the temperature control.

↳ Instructions for the temperature control.

➨ If necessary, have the refrigeration parameters changed by a refrigeration engineer.

Further maintenance

☞ Further maintenance, such as inspection, adjustment, maintenance and cleaning of moving parts, is described in the service instructions.

↳ B.PRO service documentation.

Repairs

Authorised persons

☞ Repairs may only be carried out by the following service points:

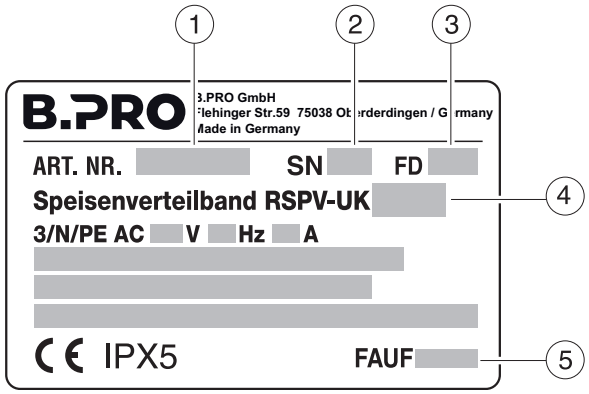
- In-house, B.PRO-trained professional
- External, B.PRO-trained customer service
- B.PRO Service
- For repairs to the refrigeration system: Specialist refrigeration company

Description of problem

In order to assess the problem B.PRO Service requires the following information from the rating plate:

- Article number
- Serial number
- Date of manufacture
- Model
- Production order number (not present for standard model)

One of the two rating plates is located in the area of the operating modules, and the other on the inside of the switch cabinet door.



(1) Article number
(2) Serial number
(3) Date of manufacture
(4) Model
(5) Production order number (not present for standard model)

Spare parts

The following information is required when ordering spare parts:

- Designation of spare part
- Article number
- Date of manufacture of the unit
- Quantity

↳ Refer to the service CD and service documentation (available from B.PRO Service).

Address B.PRO GmbH
Flehinger Straße 59
75038 Oberderdingen
GERMANY
Phone +49 (0)7045 44 - 81416
Fax +49 (0)7045 44 - 81508
Email service@bpro-solutions.com
Internet www.bpro-solutions.com

Disposal

Disposing of the unit

- Have the refrigerant disposed of by a specialist refrigeration company in accordance with the applicable statutory regulations.
- Make the unit unusable before disposal.
- Turn the unit over to a recycling centre or electrical refuse collection site.

☞ This product may not be disposed of with other commercial waste.

Technical data

General data

Dimensions and weight (standard model)

Model	Length in mm	Width in mm	Height in mm	Empty weight in kg
RSPV-UK 3,0	3 000	630	900	271
RSPV-UK 4,0	4 000	630	900	360
RSPV-UK 5,0	5 000	630	900	438
RSPV-UK 6,0	6 000	630	900	514
RSPV-UK 7,0	7 000	630	900	602
RSPV-UK 8,0	8 000	630	900	671
RSPV-UK 9,0	9 000	630	900	746
RSPV-UK 10,0	10 000	630	900	841
RSPV-UK 11,0	11 000	630	900	941
RSPV-UK 12,0	12 000	630	900	1020

Object being transported

Euronorm tray

Gastronorm tray

Temperature control – tolerance in case of temperature overshoot or undershoot

±5 °C based on the setpoint temperature (alarm signal in case of overshoot).

Electrical data

Connected loads

Unit component	Voltage	Output (maximum)
Conveyor operation		
1 drum motor up to unit length of 9 m	220–240 VAC, 50 Hz	0.16 kW
2 drum motors up to unit length of 9 m	220–240 VAC, 50 Hz	0.32 kW
Cooling		
Integrated refrigeration unit for unit length of 3 m (optional)	220–240 VAC, 50 Hz	0.88 kW
Integrated refrigeration unit for unit length of 4 m (optional)	400 V 3N, 50 Hz	1.4 kW

Unit component	Voltage	Output (maximum)
Integrated refrigeration unit for unit length of 5 m (optional)	400 V 3N, 50 Hz	1.4 kW
Power supply for peripheral units		
Socket outlets (optional)	220–240 VAC, 50 Hz	3.6 kW (per socket outlet)

No. of socket outlets	Current consumption per phase (maximum)	Unit main switch type	Back-up fuse per phase
Unit model for connection to central refrigeration system provided by customer			
0	0.7 A	32 A	16 A
1	16 A	32 A	16 A
2	16 A	32 A	16 A
3	16 A	32 A	16 A
4	17.4 A	32 A	20 A
5	21.6 A	32 A	25 A
6	22.6 A	32 A	25 A
7	26.3 A	32 A	32 A
8	29.9 A	32 A	32 A
9	31.2 A	32 A	32 A
10	32.0 A	32 A	32 A
11	35.1 A	63 A	40 A
12	38.3 A	63 A	40 A
Unit model with integrated refrigeration unit			
0	3.7 A	32 A	16 A
1	16 A	32 A	16 A
2	16 A	32 A	16 A
3	17.8 A	32 A	20 A
4	20.4 A	32 A	25 A
5	24.6 A	32 A	25 A
6	25.6 A	32 A	32 A

Protection type

IP X4 (the unit is protected against splashed water in accordance with DIN EN 60529.)

Round-belt conveyor control

Speed of round-belt conveyor: 2.5 to 12 m/min

Environment

Ambient conditions – operation

Temperature:	+10 °C to +35 °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 of the unit is less than 70 dB(A). No other problematic or dangerous emissions occur.

Materials

Unit body:	Stainless steel
Round-belt conveyor:	Polyurethane

Refrigeration system

Refrigerant central refrigeration system provided by customer:	R134a or R507/R404A
Refrigerant integrated refrigeration unit:	Global warming potential (GWP):3750
Cooling range:	Cooling range:+7 °C to +15 °C (Temperature is reached in the transport area)
Cooling capacity:	Per cooling module: 550 W at t_0 = –10 °C
Defrosting: well	Automatic, and manual where necessary as

Unit model with unit length of 3–-4 m	
Liquid line, outside diameter:	10 mm
Intake line, outside diameter:	15 mm

Unit model with unit length of 5–-12 m	
Liquid line, outside diameter:	10 mm
Intake line, outside diameter:	18 mm

Ordering information

RSPV-UK food distribution conveyor	Article number:	↳ B.PRO price list
Operating instructions	Document number:	154 540
Instructions for temperature control	Document number:	Documents may be obtained via B.PRO Service

Accessories

Euronorm trays	Article numbers:	B.PRO price list
Gastronorm trays	Article numbers:	B.PRO price list
Data logger (set)	Article number:	572 549
Adapter with Schuko plug on CEE coupling	Article number:	572 550
B.PRO microfibre cleaning cloth	Article number:	126 999
DeepClean Stainless Steel cleaning and care agent	Article number:	511 895

Standards, guidelines, inspection seal

DIN EN 292-1–2: Safety of machinery – Basic concepts, general principles for design;
Part 1: Basic terminology, methodology,
Part 2: Technical principles

DIN EN 378-1–4: Refrigerating systems and heat pumps – Safety and environmental requirements;
Part 1: Basic requirements, definitions, classification and selection criteria;
Part 2: Design, construction, testing, marking and documentation;
Part 3: Installation site and personal protection; Part 4: Operation, maintenance, repair and recovery

DIN EN 619: Continuous handling equipment and systems – Safety and EMC requirements for equipment for mechanical handling of unit loads

VDI 3620: Manual for generating operating instructions for users of continuous conveyors

DIN EN 60529: Degrees of protection provided by housing (IP code).

BGV A3 (VBG 4): Accident prevention regulations for electrical facilities and devices

BGR 111 (ZH1/37): Rules on safety and health protection for working in kitchens

DIN EN ISO 9001: B.PRO is certified in accordance with DIN EN ISO 9001.

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