HOBART

Warewashing

Flight-type dishwashers
PROFI FTNi series (Protronic XL)

Installation and Operation Manual

EN

(Original Operation Manual)

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1 Notes on the documentation

1.1 Application

This document contains the most important information for the installation and commissioning of the machine by qualified personnel, as well as the information required for day-to-day operation by the operator.

- ► Keep the operation manual and all referenced documents in a safe and accessible place.
- ► Store the operation manual in a suitable container protected from humidity and dirt deposits.
- ► If you sell the machine, pass on the installation and operation manual.

1.2 Layout of the documentation

Referenced documents are all instructions that describe the installation, operation, maintenance and repair of the device, as well as additional instructions for all accessories used.

For the operator:

- – Comic Card (brief instructions)
- – Operation instructions

For the specialised tradesman or HOBART service:

- – Installation instructions
- – Floor plan
- – Circuit diagram
- – Service Manual
- – Service Software Manual
- – Trouble shooting list
- – Maintenance schedule
- – Spare Parts Catalogue

1.3 Representation convention

1.3.1 Symbols used

Symbol	Meaning
	Warning of hazardous electrical voltage
	Beware of explosion
	Warning of risk of crushing
	Beware of entanglement
	Beware of hazardous substances
	Beware of hand injuries

Symbol	Meaning
	Beware of slipping
	Beware of hazard area
	Useful additional information and tips

1.3.2 Representation in the text

Representation	Meaning
NOTE	Important information on machine operation, not a warning notice
►	Step
↳	Outcome/result
–	Listing 1st level
•	Listing 2nd level

2 Safety instructions and regulations

2.1 Safety instructions and warning notices

► During machine operation, observe the general safety instructions and warning notices that precede each action.

2.1.1 Hazard levels

The hazard level is part of the safety instructions and is denoted by the signal word.

Potential consequences are differentiated by the choice of signal word.

⚠ DANGER	imminent danger: **results in serious** physical injury or death
⚠ WARNING	potentially hazardous situation: **can** cause **serious** physical injury or death
⚠ CAUTION	potentially hazardous situation: **can** cause **minor** physical injury
NOTICE	potentially harmful situation: **can** cause **damage** to the product or other objects

2.1.2 Layout of warning notices

Warning notices are depicted with warning symbols and signal word in the corresponding safety colours.

⚠CAUTION!

Nature and source of the hazard

Explanation on the nature and source of the hazard

- ► Measures for averting the hazard
- ► additional measures for averting the hazard, where applicable

2.2 Basic safety instructions

2.2.1 Product safety

The machine conforms to state-of-the-art technology and the recognised safety regulations. Nonetheless, hazards may occur.

Operate the machine only in compliance with the operation manual.

All modifications and alterations to the product are reserved for persons authorised by HOBART.

2.2.2 Personnel qualification

- ► Observe the regulations on occupational health and safety. Wear personal protective equipment.
- ► Carefully read through the Installation and Operation Manual before use.

Activity	User group	Qualification/training
Installation	Qualified personnel	Hobart Service or an electrically qualified person trained by Hobart or a competent person acc. to the German technical regulations for occupational safety (TRBS 1203) trained by Hobart
	Trainees	Only under professional supervision and examination
Commissioning	Qualified personnel	Hobart Service or an electrically qualified person trained by Hobart or a competent person acc. to the German technical regulations for occupational safety (TRBS 1203) trained by Hobart
	Trainees	Only under professional supervision and examination
Work on electrical system	Qualified personnel	Hobart Service or an electrically qualified person trained by Hobart or a competent person acc. to the German technical regulations for occupational safety (TRBS 1203) trained by Hobart
Work on refrigeration systems	Qualified personnel	Category 1 expert certified in accordance with: - Ordinance (EU) No. 517/2014 Article 10 - Implementing regulation (EU) 2015/2067 - German Chemicals Climate Protection Ordinance §5
Operation	Operating personnel and persons over the age of 14	Only under supervision and after instruction by the operator on the basis of the operating instructions, instructions on dangers
	Disabled persons	The suitability must be assessed by the operator on an individual basis
	Persons up to the age of 13	Persons up to the age of 13 are not suited for machine operation
Maintenance, repair	Qualified personnel	Hobart Service or an electrically qualified person trained by Hobart or a competent person acc. to the German technical regulations for occupational safety (TRBS 1203) trained by Hobart

Activity	User group	Qualification/training
	Trainees	Only under professional supervision and examination

2.2.3 Product-specific hazards

Avoid body parts being crushed or knocked:

- ► Observe the instructions on the packaging for storage, lifting or transporting.
- ► Transport is reserved for certified and trained personnel.
- ► Only certified qualified personnel are permitted to install the machine, assemble the modules, tension the conveyor belt and connect the exhaust pipework.
- ► Ensure that the operators wear tight-fitting clothing.
- ► Do not reach into the conveyor system during operation.
- ► Carefully remove the wash arms when cleaning the machine.

Risk of body parts being cut:

- ► Wear personal protective equipment when removing the packing bands, unpacking the modules and tensioning the conveyor belt.
- ► Only certified, qualified personnel are permitted to connect the exhaust pipework and set the exhaust system.
- ► Wear protective gloves when cleaning the machine.
- ► Only certified personnel are permitted to clean the exhaust condenser.

Avoid risk of explosion:

- ► Do not install machine in a potentially-explosive location.

Avoid electric shock:

- ► Do not allow water to flow over live components.
  - – Make sure the machine is correctly stored (see frost damage section *2.3*).
  - – Do not spray the outside of the machine with a water hose or high-pressure cleaner.
- ► Have the machine connected to the power supply by qualified personnel.
- ► Have the booster and the fill booster initially filled and the motors checked only by certified, qualified personnel and in accordance with the operation instructions.
- ► Have wearing or faulty parts replaced only by certified, qualified personnel.

Avoid fire risk:

- ► Do not allow water to flow over live components.
  - – Make sure the machine is correctly stored (see frost damage section *2.3*).
  - – Do not spray the outside of the machine with a water hose or high-pressure cleaner.
- ► Have the machine connected to the power supply only by qualified personnel.
- ► Have all modifications to the machine, repairs and maintenance carried out only by qualified personnel.

Avoid chemical burns, sensitisation of the skin, poisoning:

- ► Wear protective equipment (gloves, safety goggles, protective clothing) when handling chemicals.
- ► Use only suitable chemicals. Observe the manufacturer's data.
- ► Do not open the door during operation.
- ► Disconnect the machine from the mains prior to cleaning.

Avoid burns, scalds (to the hands):

- ► Wear protective gloves when connecting to the site steam pipework.
- ► Do not open the door during operation.
- ► Disconnect the machine from the mains prior to cleaning.
- ► For cleaning, wear protective equipment (gloves, protective clothing) when touching parts that have hot surfaces (heating rods, heat exchangers).

Avoid risk of falling:

► Do not stand on the machine roof when connecting the exhaust pipework.

Avoid slipping:

Moisture can build up on the machine floor.

► Provide a floor covering that is guaranteed to be non-slip in case of moisture.

Residues on the washware, hygiene regulations not maintained.

► Hygiene regulations must be maintained and/or demonstrated in accordance with the national provisions.

2.2.4 Additional hazards

Potential hazards caused by operating resources to be used can be found in the enclosed safety datasheets. Workplaces must be signed accordingly.

2.3 Property damage

Avoid frost damage:

Temperatures below 0°C lead to functional damage.

► Before storing below 0°C, empty residual water in hoses, tank and boiler.

► Prior to restart, store the machine at room temperature (min. 15°C) for 24h.

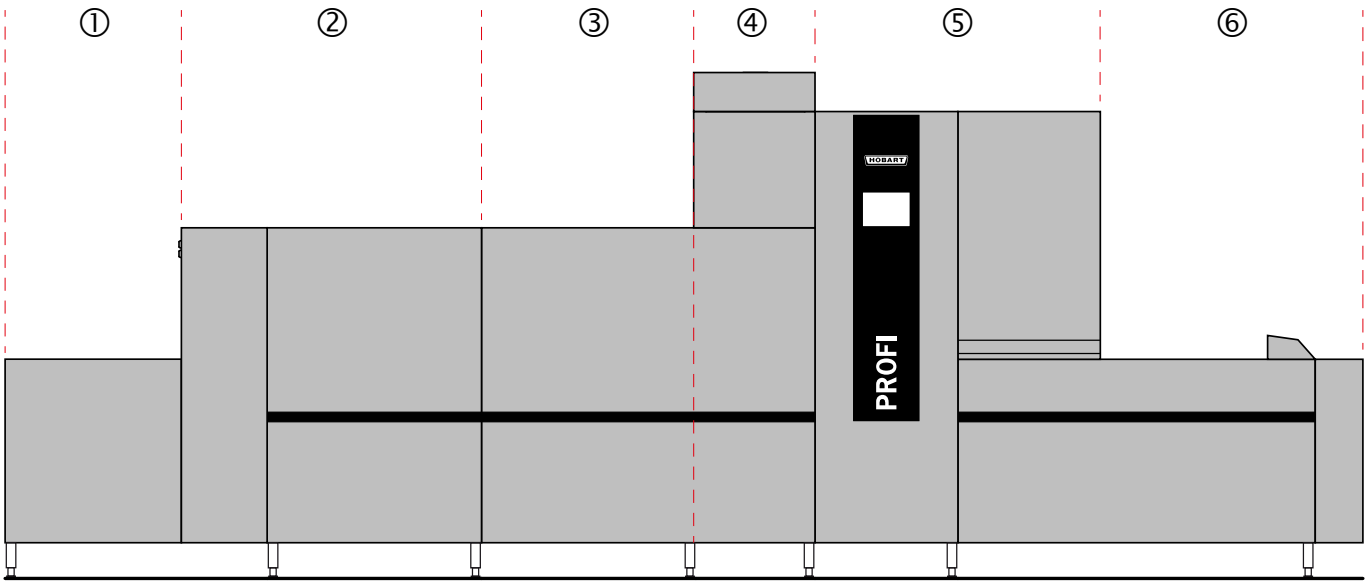
Avoid water damage:

► Do not operate the machine without supervision.

► Close on-site shut-off valves at the end of operation.

3 Product description

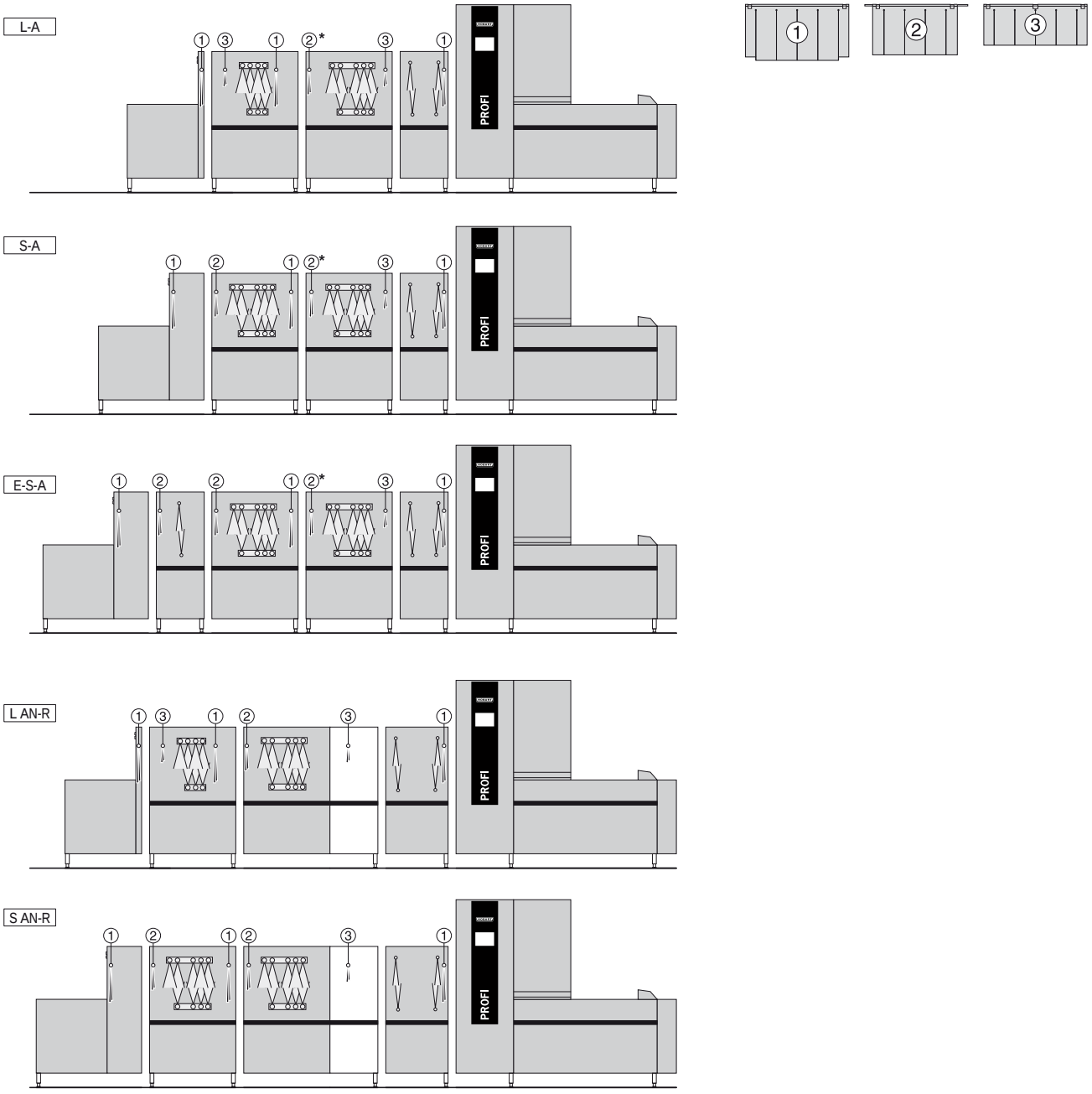
3.1 General view and elements



Example: Model SADL

3.1.1 Curtain arrangement

Illustration applies to left/right running direction. The curtain arrangement is reversed for right/left running direction.



* For TBR only

3.2 Intended purpose

The machine is an item of technical equipment intended solely for commercial dishwashing.

The machine is designed solely for cleaning crockery (porcelain, glass, ceramic, temperature-resistant plastics or stainless steel or similar) from the food industry.

Not for washing:

– Containers that do not come into contact with foodstuffs, such as ashtrays, candlesticks, electric appliances etc.
– Animals or textiles
– Foodstuffs intended for further consumption

3.3 Designation

The rating plate is located on the control box and contains the following information: model, serial number, date of manufacture, country of manufacture, voltage, connection rating, design-state number and CE mark.

3.4 Technical specifications

See separate floor plan.

Noise emission:

Workplace-related emission value:

Emission sound pressure level LpA = 73.6 dB (A)

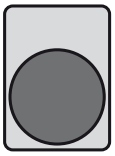
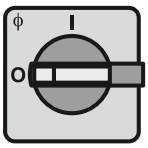
Measurement uncertainty KpA = 2.5 dB

3.5 Operating temperatures

Prewash tank	45 – 55°C
Main wash tank	min. 60°C
Pumped rinse	60 – 65°C
Fresh water rinse	80 – 85°C

4 Controls

4.1 Main switch and button

	**EMERGENCY STOP button** Machine is shut down, but not free of voltage. Must be unlocked for operation.
	**Main switch** For operation, must be set to position I, for repair and maintenance work to position 0.
	CONVEYOR ON button at the entry section (option) Switches on the machine conveyor. Washing is started automatically.
	CONVEYOR OFF button at the entry section (option) Switches off the conveyor and wash functions.

	HIGH-PRESSURE button at the loading section (option) Turns on the high-pressure program (illuminates during high-pressure mode). Press the button again to turn off.

4.2 Control panel

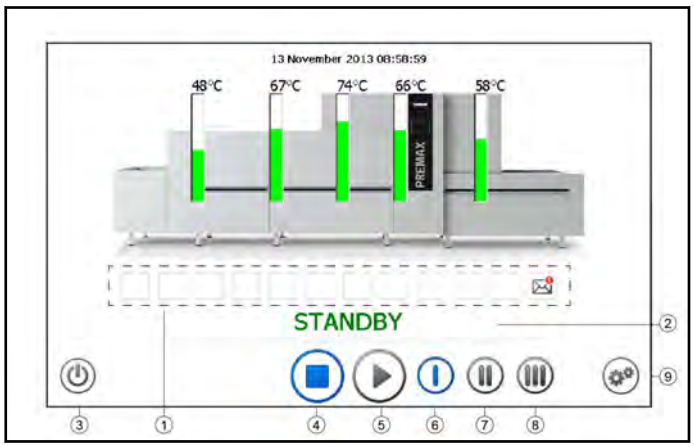
4.2.1 Start screen

The Protronic XL operating and display unit is a 7" colour touch display. All functions are selected via this operating interface. The illustrations (temperatures, symbols) are examples and may vary depending on model and features installed. It may take the controller some time to boot up. This is normal and does not indicate a fault.

	Title	Function
①	MACHINE ON button	Pressing this button switches the machine on.
②	OPERATOR MENU button	Pressing this button selects the operator menu (see section *4.5.2*).
③	Display	Date and time
④	Display	Machine designation and serial number

4.2.2 Main screen

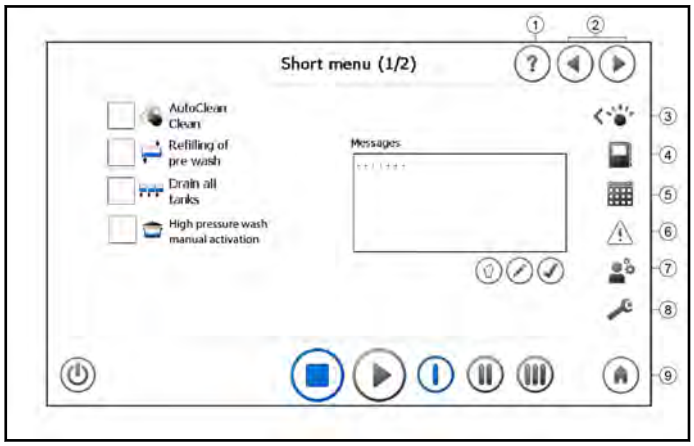
Below the machine display, selected programs and operating states are explained by symbols and texts. If faults are present, symbols and the display frame change colour.



	Title	Function
①	Symbol display	Displays the current setting and information on the operating state of the machine through function symbols (see section *4.5.1*).
②	Information display	Displays the current operating state as text.
③	MACHINE OFF button	Pressing this button switches the machine off. Press for 5 seconds: Machine will be completely drained and then switched off.
④	CONVEYOR OFF button	Pressing this button switches the conveyor off.
⑤	CONVEYOR ON button	Pressing this button switches the conveyor on. Washing, rinsing and drying start. The button also shows the current operating state through different colours (see sections *4.3* and *4.4*)
⑥	SPEED 1 button	Pressing this button selects conveyor speed 1.
⑦	SPEED 2 button	Pressing this button selects conveyor speed 2.
⑧	SPEED 3 button	Pressing this button selects conveyor speed 3.
⑨	OPERATOR MENU button	Pressing this button selects the operator menu (see section *4.5.2*).

4.2.3 Operator menu screen

In the operator menu, machine functions are selected and operating data, faults and information messages are displayed.



	Title	Function
①	Help	Displays help on the menu
②	Forwards/backwards	Scroll in the menu
③	Quick menu	Select machine functions
④	Operating data	Enter and display operating data
⑤	AutoStart	Enter AutoStart and time settings
⑥	Fault	Display fault and information messages
⑦	User menu	Open the user menu, login required
⑧	Service	Only for authorised service personnel, login required
⑨	Home	Back to the main screen

4.3 Operating states

In the operating panel display, the function keys show the current operating state through different colours.

Example: SPEED 1 button

	Colour	Meaning
	Grey faded out	Not available
	Grey faded in	Inactive
	Blue	Active
	Yellow	Minor error
	Red	Major error

4.4 Displays faults and information

Faults are shown in the operator panel display. Information can be displayed in the operator menu.

	Fault: Major error – Display field frames and symbols are **red**. – The warning symbol appears in the symbol display: Exclamation mark is **re**d. – The text: **Fault**! appears in the information display – For potential faults, see section *9.2*
	Fault: Minor error – Display field frames and symbols are **yellow**. – The warning symbol appears in the symbol display: Exclamation mark is **yellow**. – The text: **Fault**! appears in the information display – *9.2*For potential messages, see section
	Information – Information messages are displayed only in the operator menu. – Warning symbol: Exclamation mark is **blue**. – *9.2*For potential messages, see section

4.5 Overview of display symbols

4.5.1 Function symbols

The symbol display shows the current setting and information on the operating cycle of the machine.

Symbol	Function

Symbol	Function
	All tanks: Drain water
	Machine fills
	Doors/covering opened
	AutoStart enabled
	Fault: minor error, major error, information
	Pan program: Manual
	Hygiene control enabled
	(Option)AUTOCLEAN running
	Emergency mode enabled
	New message available

4.5.2 Menu symbols

In the operator menu, machine functions are selected and operating data, faults and information messages are displayed.

Icon	Function
	Displays help on the menu

Icon	Function
	Scroll forwards and backwards in the menu
	Quick menu: Select machine functions
	Enter and display operating data
	Enter AutoStart and time settings
	Fault
	Open the user menu, login required
	Service: Only for authorised service personnel
	Home: Back to the main screen
	Delete message
	Write message
	Confirm setting

4.6 Overview of information display

The current operating mode is displayed in the information line. Information includes:

Text	Meaning
Machine filling, please wait!	Fill operation before operational readiness.
Machine heating, please wait!	Heating operation before operational readiness.
Machine is ready for operation	Machine is filled, operating temperatures are reached and there are no faults or errors.
Conveyor is running	Machine is operational and conveyor is switched on. Depending on the operating mode (autotimer), the washing cycle runs automatically once the washware has entered the machine or at the same time as conveyor ON.

Text	Meaning
Washing switched on	Depending on the operating mode (autotimer), the washing cycle runs automatically once the washware has entered the machine or at the same time as conveyor ON. When autotimer is **active**, the washing cycle is switched on via the sensor at the machine entry section Transport and washing are switched on.
Door or covering opened	One or more doors are opened.
Conveyor limit switch actuated	Located at the exit end of the machine is a limit switch which is pressed if the washware is not removed. This limit switch deactivates the conveyor. The drive starts to run again automatically as soon as the washware is removed.
Fault!	One or more faults has occurred. Tapping the text message opens the fault message menu.
Strainer in …….. missing(Option)	The display indicates if a strainer is missing or incorrectly positioned in the tanks.
Machine in emergency mode	If the temperatures for operational readiness are not reached, the conveyor cannot be started. The customer can activate emergency mode to rinse without operation readiness being reached. Emergency mode is deactivated by switching off the machine.
Service due in ... hours	The display shows the time remaining until the next due service interval.
Service due	The service interval hours have elapsed, service is due.
Prewash is being refilled	The prewash(es) is/are drained and then refilled.
Machine is being drained	The machine is completely drained (if necessary, this message can also be displayed at the end of AUTOCLEAN).
(Option)AUTOCLEAN running	The AUTOCLEAN program is active.
Switch off machine, please!	The machine has been drained and can be switched off. AUTOCLEAN is complete and the machine can be switched off.

5 Installation

5.1 Personnel qualification

Installation must only be carried out by qualified personnel (see section *2.2.2*).

5.2 Special safety instructions

⚠WARNING!

Risk of electric shock, fire hazard

Water (frost damage, machine overflow) flowing over live components can cause injury from electric shock or fire.

- ► Do not allow water to flow under live components.
- ► Make sure the machine is correctly stored (see frost damage section *2.3*).
- ► Make sure that the machine does not overflow when being filled.

⚠WARNING!

Risk of explosion

Installing the machine in a potentially explosive location can cause explosion and serious injury from ejected parts.

► Do not install machine in a potentially-explosive location.

NOTICE!

Frost damage

Temperatures below 0°C during transport/storage cause function impairments.

► Prior to installation, store the machine at room temperature (min. 15°C) for 24h.

5.3 Transporting to the installation location

⚠WARNING!

Risk of being crushed or knocked

When being lifted and transported, the machine can overturn or fall and cause serious injury.

► Observe the instructions on the packaging for storage, lifting or transporting.

► Have the machine transported only by certified and trained personnel.

- ► If possible in its packing and on the skid.
- ► If a forklift is used, put a wooden frame under the machine.
- ► Use suitable transport means (elevating truck, crane etc.).
- ► Push on rollers.
- ► Avoid damage to floors and doors.
- ► Avoid damage to the machine.

5.4 Removing the packaging

⚠CAUTION!

Risk of being cut

Removing the packing bands can cause cut injuries. When unpacking the modules, the sharp edges of the sheet parts can cause cut injuries.

► Wear personal protective equipment.

- ► Cut off packing bands.
- ► Remove outside carton.
- ► Remove skid.
- ► Remove packing materials and accessories from the machine.
- ► Inspect the machine for possible transport damage.

5.5 Installing the machine

⚠CAUTION!

Risk of being crushed

Body parts can be crushed while the machine is being set down.

- ► Have the machine installed only by certified, qualified personnel.
- ► Wear protective gloves.

NOTE: If the machine is delivered in separate modules, align the largest machine part at the installation location first (see also*5.6*).

- ► Align the machine according to the installation plan.
- ► Observe wall clearances according to the installation plan.
- ► By turning the feet, set the height of the loading platform to 920 mm.
- ► Level out an unevenness in the floor.
- ► Distribute machine weight equally onto all feet.

5.6 Assembly of modules

⚠WARNING!

Risk of being crushed or knocked

When assembling modules, raised machine parts can overturn or fall and cause serious injuries.

- ► Have the modules assembled only by certified, qualified personnel.
- ► Wear personal protective equipment.

⚠CAUTION!

Risk of being cut

When assembling modules, sharp edges on sheet parts can cause cut injuries.

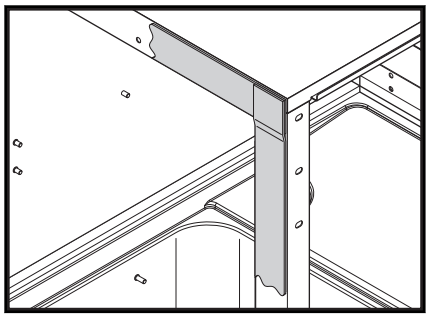
- ► Have the modules assembled only by certified, qualified personnel.
- ► Wear protective gloves.

- ► Remove covers.

Affixing sealing tape:

Remove any old seals.

- ► Affix sealing strip no. 168 834-14 all the way around one of the two contact surfaces.

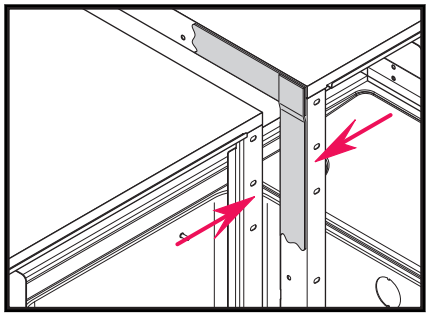


- ► Allow the strip ends to overlap in the corners.

Adding next modules:

- ► Level the height (see *5.5*).

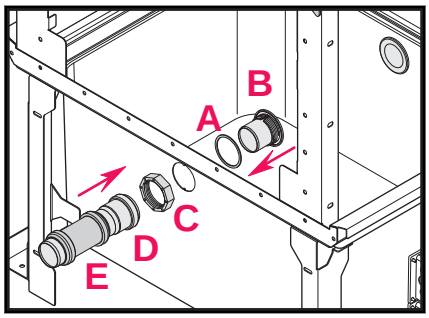
► Connect modules (use screws SK M6 x 12, washers, spring rings and nuts supplied).



► Cut off protruding sealing tape with knife.
► Connect the drain pipes.

Connecting wash tanks:

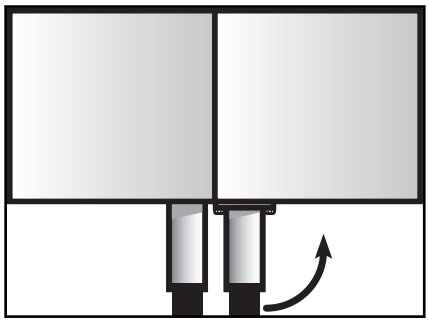
► ***Install overflows. :***
► Set sealing ring (A) on the overflow pipe (B).



► Put the overflow pipe (B) from the inside of the tank through the pre-punched hole and tighten it with the nut (C).
► Push coupling (E) over pipe (D). Attach the pipe to the overflow (B) and connect with the overflow pipe of the opposite wash tank.

Remove transport feet (if present):

► Unscrew transport feet and return to the HOBART branch.



5.7 Attach electrical consumers

NOTE: Follow the wiring diagram and the labels on wires and terminals.

► Unroll cable bundles and draw through the front cable channel.
► Screw the cables to the connection terminals of the consumers.

5.8 Tension conveyor belt

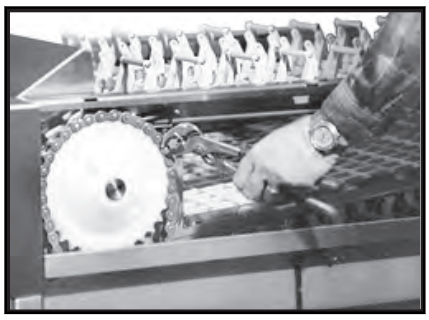
⚠CAUTION!

Risk of being cut or crushed

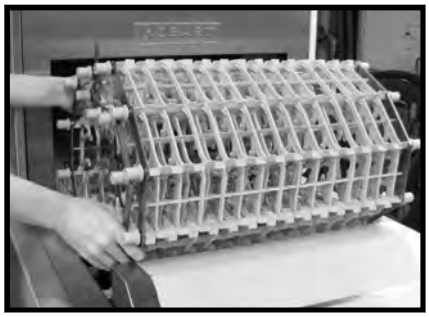
Rotating parts can cause crushing or cut injuries as the conveyor belt is being tensioned.

- ► Have the conveyor belt tensioned only by certified, qualified personnel.
- ► Wear personal protective equipment.
- ► The belt must be tensioned by hand. Use of the belt drive is not permitted.

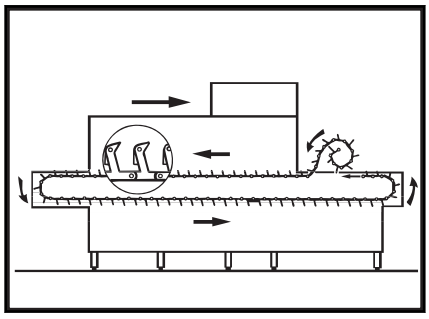
► Remove chain between belt shaft and transport motor (end of machine).



► Place rolled conveyor belt on the exit end of the machine.

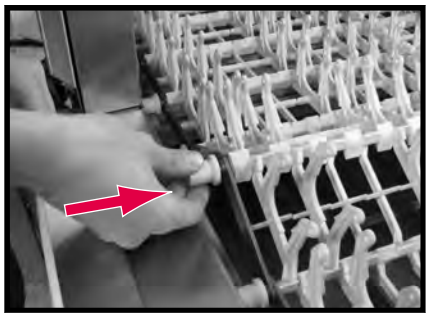


► Draw it through the machine in the direction of the loading section.



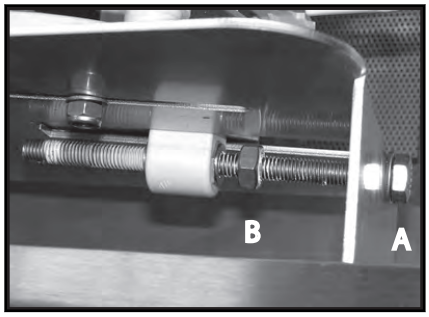
► Connect the two conveyor ends using the conveyor rod.

► Attach rollers to both ends of the conveyor rod and click it into place.



The conveyor belt shown here does not necessarily correspond in all details to the conveyor belt delivered to you, as different conveyor belts may be used depending on the specific application.

► Tension the conveyor at the loading section equally on both sides and lock the tension screws (A) with nuts (B).



► Replace chain between conveyor shaft and transport motor.

5.9 Connecting to the power supply

⚠WARNING!

Risk of electric shock

Failure to connect properly to the power supply can cause mortal danger from electric shock.

► Have the machine connected to the power supply only by qualified personnel.

NOTE: To guarantee the electrical safety of the machine, it must be connected to a protective earthing equipment conductor installed as specified. In addition, the machine must be connected on site to the equipotential bonding connection. The connecting screw (⏚) provided for this purpose is located at the rear of the control box next to the cable gland.

With frequency converter-controlled machines and the corresponding use of a residual current protective device (FI/RCD), this must be rated as type B (sensitive to alternating/direct currents).

These fundamental safety requirements and the professional design of the on-site installation must be verified by a qualified electrician.

Hobart does not accept any liability for damage caused by improper installation! Any applicable local installation instructions must be observed!

The mains cable must be connected via a cut-out device (main switch or accessible plug device).

The power supply must be consistent with the data on the rating plate.

► Open the control box and take out the wiring diagram from the inside of the door.
► Fuses and cable cross section must be designed accordingly.
► Draw mains cable (H07-RN-F) through cable gland at the bottom of the control box rear panel.
► Connect wires to main terminals or to main switch (if built-in).
► Tighten all terminal screws in the control box.
► Tighten cable gland.

5.10 Connecting the water

NOTE: The machine must be operated with potable water. For water with an extremely high mineral content, an external demineralisation unit is recommended.

► Connect water supply and drain pipes according to installation plan.

Line strainer and air gap are fitted to the machine as standard.

Water hardness:

– Fresh water rinse: max. 3 °d = 0.5 mmol/l; 80 – 120 µs/cm
– Tank filling: max. 3°d = 0.5 mmol/l.; 150 – 400 µs/cm

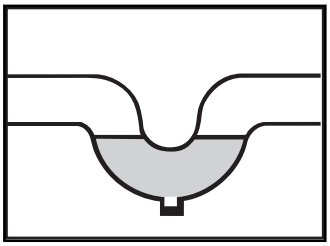
Flow pressure:
– Fresh water rinse: 1.5 – 6 bar at 500 l/h
– Tank filling: 1.5 – 6 bar
– If the flow pressure is above 6 bar: provide pressure reducing valve.

Temperature:
– Fresh water rinse without the CLIMATE option: 50 – 60 °C;
– Fresh water rinse with CLIMATE or CLIMATE-PRO: 12 °C;
– Tank filling: 50 – 60 °C

► Connect machine connections DN 20 (3/4") to site water supply.
► Provide site shut-off valve.

5.11 Connecting the drain

► Connect central drain DN 50 (HT pipe) to site wastewater system.



► Fit bottom drain of scullery with siphon.

5.12 Connect steam or hot water

NOTE: On site, make sure that the pressures and temperatures for the heating medium given in the installation plan cannot be exceeded.

⚠CAUTION!

Burns, scalds

During connection, hot pipelines and fittings can cause burns. Steam can escape and cause scalding.

► Before connecting, lock-off the site steam supply and secure to prevent "restart".
► Wear protective gloves.

5.12.1 Connecting pipelines

All connections are equipped on site with the necessary fittings.

► Connect supply and return lines according to connection diagram.
► Lay steam connections so that the hot pipelines cannot be touched directly.
► Lay steam connections so that no damage can be caused to other machine components.

5.12.2 Insulate pipelines

► Use heat-resistant and waterproof insulating materials.
► Use shock-proof cladding.

5.12.3 Adjustment of manual shut-off valve

The built-in manual shut-off valve is equipped with and adjustment device to limit the flow rate of the heating supply medium. The correct adjustment is very important, particularly for higher pressures.

NOTICE!

Property damage

If the manual shut-off valve is not throttled enough, water hammer may occur when the solenoid valve closes.

If the manual shut-off valve is throttled too much, the heat output will be too low.

► Have the adjustment made only by a HOBART-trained customer service engineer when commissioning or when the site system is modified.

Adjustment of manual shut-off valve:

🛠 Special wrench required

► Adjust the valve seat so that when the valve is fully opened, the set temperature of the booster is maintained in continuous operation.

5.13 Connecting the exhaust

NOTE: Applies only for machines requiring an exhaust air connection. All measures must be agreed in consultation with the responsible ventilation engineer. Observe the locally-applicable provisions (Germany e.g. VDI 2052). The notes on the connection diagram must be observed.

⚠CAUTION!

Risk of falling

Risk of falling when stood connecting the exhaust pipework to the machine roof. The machine roof can deform or buckle.

► Do not stand on the machine roof.

⚠CAUTION!

Risk of being cut or crushed

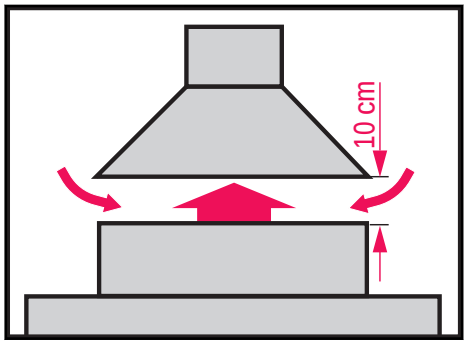
Rotating parts can cause crushing or cut injuries when connecting the exhaust pipework.

► Have exhaust pipework connected only by certified, qualified personnel.

5.13.1 Connect exhaust to the ventilation system

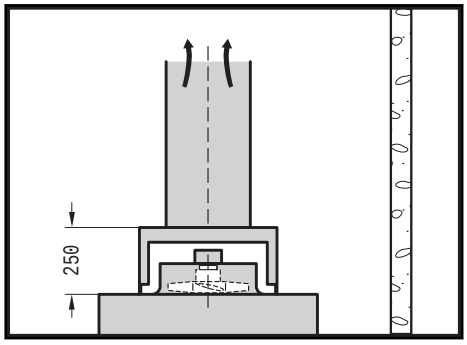
► To prevent corrosion damage, execute exhaust channel in plastic or CrNi.

► Leave a clearance (approx. 10 cm) between machine and on-site exhaust channel or connect special connection adapter (available as accessory).



- ► Provide an exhaust fan in the exhaust system. The fan installed in the machine has no compression.
- ► The air volume to be evacuated from site has to be greater than the exhaust volume of the machine (see installation diagram).
- ► For outdoor pipework: Provide insulation and automatically self-closing anti-freeze shutter.

Variant 1: To site exhaust system

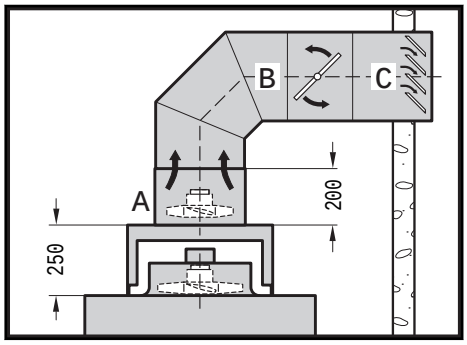


– With vent hood (available as an option from HOBART)

Connecting the exhaust:

- ► Connect to site exhaust system with an output corresponding to the values in the installation plan (see graphic).

Variant 2: Via pipe to the outside

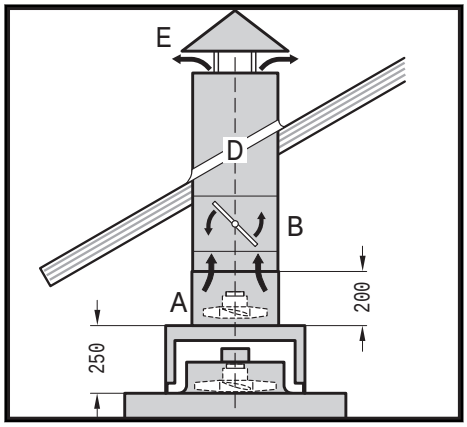


– With vent hood (available as an option from HOBART)
– A voltage-free contact is provided in the machine control box to control the external exhaust fan.
– Built-in additional fan (A) installed.

Connecting the exhaust:

- ► To prevent corrosion damage, execute exhaust channel in plastic or CrNi.
- ► Provide anti-freeze shutter (B).
- ► Provide blind (C) on the pipe outlet in open air.

Variant 3: Via vertical pipe in open air

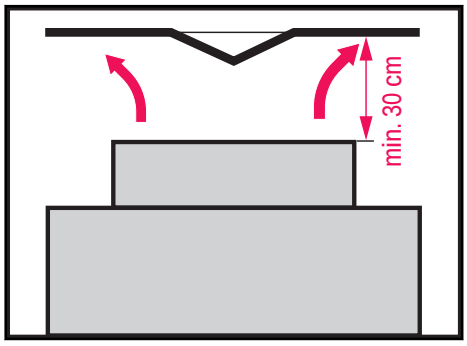


– With vent hood (available as an option from HOBART)
– A voltage-free contact is provided in the machine control box to control the external exhaust fan.
– Built-in additional fan (A) installed.

Connecting the exhaust:

► To prevent corrosion damage, execute exhaust channel in plastic or CrNi.
► Provide anti-freeze shutter (B).
► Provide roof sealing (D) on the pipe.
► Provide cover (E) on the pipe outlet to the outside.

5.13.2 Connect exhaust air free in the room



NOTE: Provide adequate room ventilation. Observe the locally-applicable provisions (Germany e.g. VDI 2052).

NOTICE!

Property damage

Escaping waste steam can cause damage due to condensate formation.

► Ensure that waste steam is swirled with the room air immediately after exiting the machine.

5.13.3 Machines with CLIMATE-PRO

⚠CAUTION!

Breathing difficulties, irritation of eyes or skin

When connecting the CLIMATE-PRO, R134a refrigerant can escape and cause injury.

- ► Have CLIMATE-PRO connected only by certified, qualified personnel (refrigeration engineer).
- ► Wear personal protective equipment (protective gloves, safety goggles).

5.14 Connect detergent and rinse aid

⚠WARNING!

Risk of electric shock

Mounting the additional feed tanks, touching live parts (boiler heater, tank heater, pumps) when working under voltage

- ► Have additional feed tanks mounted by qualified personnel.

⚠CAUTION!

Chemical burns, sensitisation of the skin, poisoning

The use of unsuitable chemicals can cause injury.

- ► Use only commercial detergent and rinse aid.
- ► Observe the manufacturer's application and safety instructions.

NOTICE!

Property damage

The insulated covers can be damaged when if the dispenser is mounted on the machine itself.

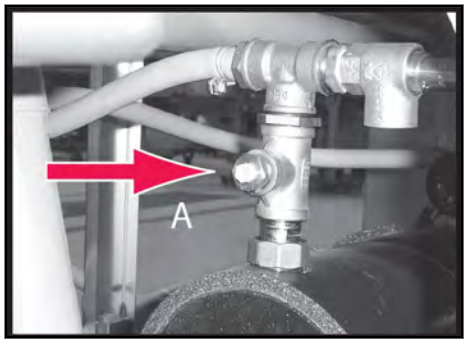
- ► Do not fasten the detergent and rinse aid container and their controls to the machine itself.

Normally, dispensers and their control are delivered and installed by the product suppliers.

NOTE: Observe separate installation instructions.

Mounting the dispensers and their controls:

- ► Install dispensers, containers and controls in such a way that they are easily accessible, easily visible, easy to service and do not disrupt machine operation.
  Terminals for the electrical power supply (230 V~) are located in the control box (see wiring diagram).
- ► Connect the rinse aid above the continuous-flow heater (A) to the rinse water line (R 1/8" internal).



6 Commissioning

6.1 Personnel qualification

Commissioning must only be carried out by qualified personnel (see section *2.2.2*).

6.2 Special safety instructions

NOTE: Before commissioning the machine, the relevant electrical safety checks must be performed according to the locally applicable regulations!

⚠WARNING!

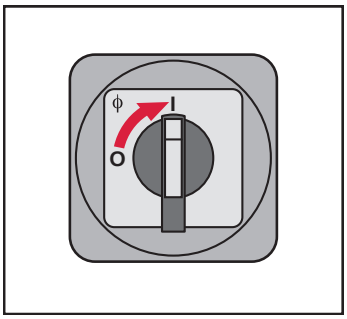
Risk of electric shock

When initially filling the boiler and the fill boiler and checking the motors, contact with live components can lead to serious injury.

► Have these activities carried out only by certified, qualified personnel and in accordance with the operation manual.

6.3 Preparing the machine

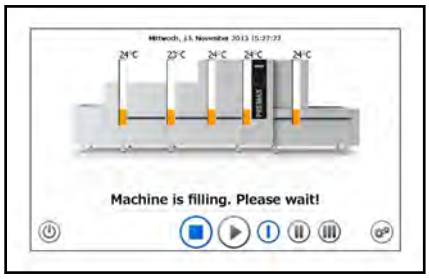
► Turn off main switch.
► Open site shut-off valves.
► Ensure that the detergent and rinse aid containers are full.
► Open control cabinet and switch on all circuit breakers and protection switches inside.
NOTE: If an electrically-heated booster heater and a separate fill booster (option) is installed, make sure that the respective sealed protection switch (see wiring diagram) remains off.
► Close inspection doors.
► Pull the EMERGENCY STOP button.
► Turn on main switch.



↳ Start screen is displayed.

► Switch on site vapour extractor.
► Press the MACHINE ON button.

↳ The display changes to the main screen.



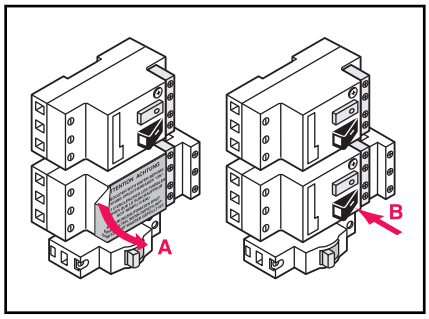
6.4 Fill the booster

6.4.1 Fill the booster with fresh water rinse

As soon as pressure builds up at the boiler and water sprays out of the rinse arm nozzles, proceed as follows.

Fill boiler with electrically-heated machine:

► Remove seal (A).



► Turn on safety switch (B).

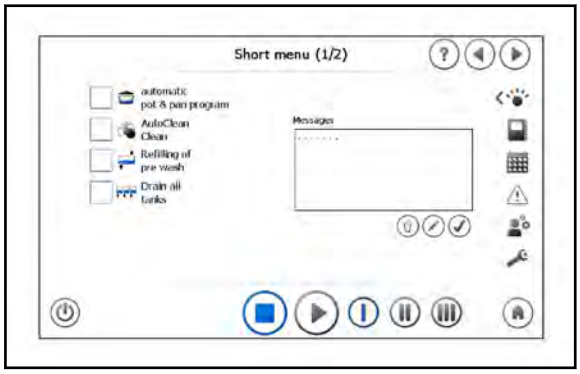
Fill boiler with machine heated by steam or hot water:

► Open steam or hot water valves.
► Close the switch cabinet.

6.4.2 Separate fill booster (option)

► Press the OPERATOR MENU button.

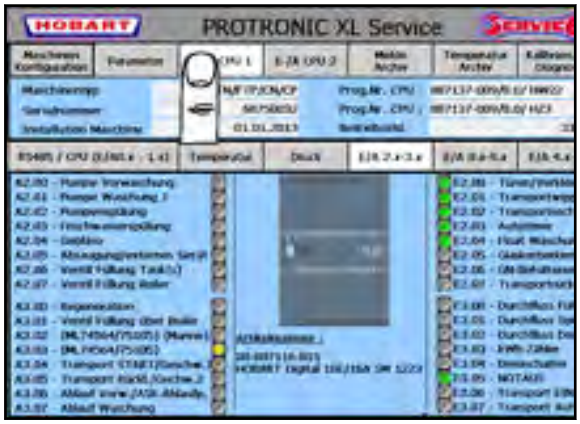
↳ The display changes to the operator menu screen.



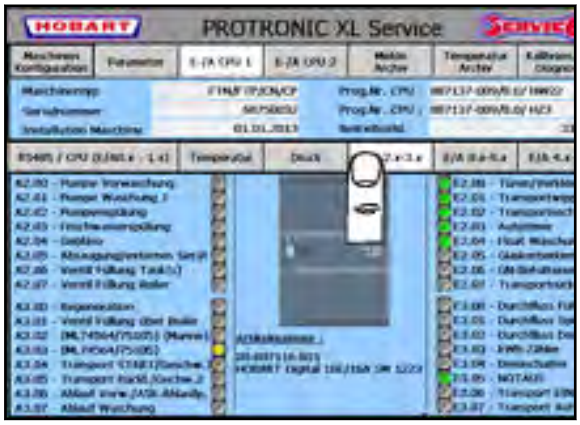
► Press the SERVICE button.

↳ The Service menu opens.

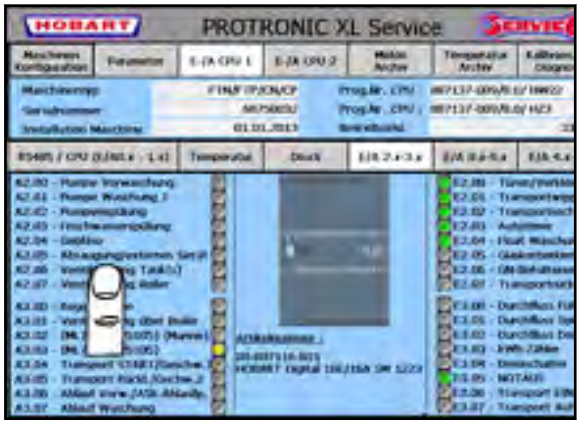
► Select the **I/O CPU1** button.



► Select the **I/O 2.x-3.x** button.

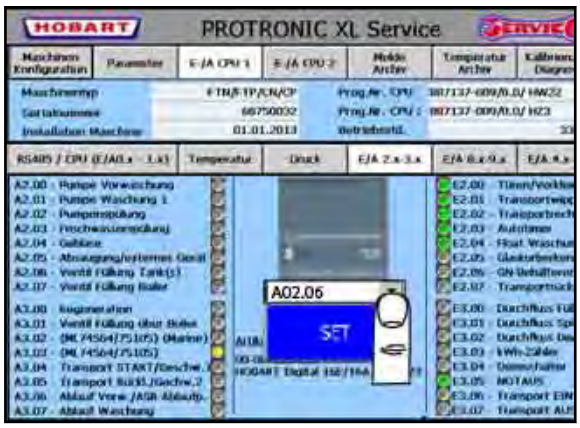


► Tap the left-hand window area.

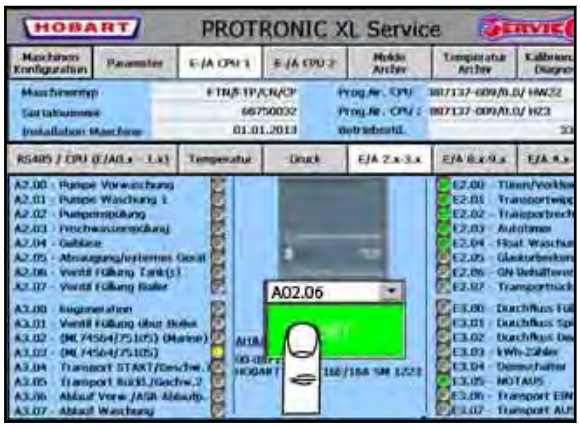


↳ A pull-down menu appears.

► Select **A02.06**.



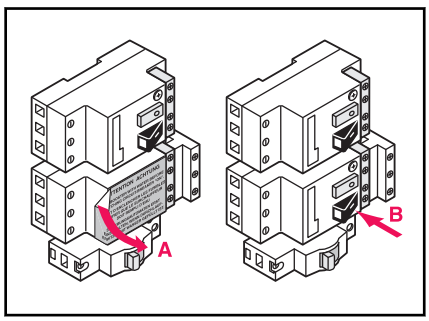
► Keep the SET button pressed for approx. 2 minutes until you hear water flowing into the wash tank.



► To exit the menu, press the END button.

Fill boiler with electrically-heated machine:

► Remove seal (A).



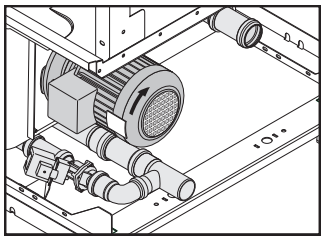
► Turn on safety switch (B).

Fill boiler with machine heated by steam or hot water:

- ► Open steam or hot water valves.
- ► Close the switch cabinet.

6.5 Carry out checks

- ► Turn off main switch.
- ► Remove all covers.
- ► Turn on main switch.
- ► Turn on machine, see section *7.4.2*.
- ► ***Check safety functions:***
  - ► Check EMERGENCY STOP.
  - ► Check conveyor limit switch.
  - ► Check conveyor block according to installation report 3.1.
- ► ***Check rotational direction of the motors (see rotational direction arrows):***
  - ► Check drive motor.



  - ► Check pumps.
  - ► Check dryer (if fitted).
  - ► Check extractor.
- ► ***Search for and eliminate any leaks:***
  - ► Check drain pipes.
  - ► Check heating lines.
  - ► Check water pipes.
  - ► Check machine housing.
  - ► Check tank bottom.
  - ► Check extraction system.
- ► Re-attach all covers.

6.6 Making the chemical settings

⚠CAUTION!

Chemical burns, sensitisation of the skin, poisoning

The use of unsuitable chemicals can cause injury.

- ► Use only commercial detergent and rinse aid.
- ► Observe the manufacturer's application and safety instructions.

⚠WARNING!

Chemical burns, sensitisation of the skin, poisoning

Incorrect handling of detergent or rinse can lead to serious injuries.

- ► Wear protective equipment (gloves, safety goggles, protective clothing) when handling chemicals.

The setting of the detergent and rinse aid is carried out by the chemicals supplier.

6.7 Setting the autotimer (option)

The autotimer is preset at the factory. The run-on times can be changed by certified service personnel.

6.8 Setting the automatic commissioning

The time and switch on time are set by the service technician when the machine is setup.

► To make changes to the switch on time: See operator menu, section *8.4*.

6.9 Adjusting the exhaust system

⚠CAUTION!

Risk of being cut

When adjusting the exhaust system, sharp edges of sheet parts can cause cut injuries.

► Have the exhaust system adjusted only by certified, qualified personnel.
► Wear protective gloves.

► Set the required site exhaust volume in accordance with the values in the installation plan.
► Please inform customer service of any modifications.

7 Operation

7.1 Personnel qualification

The machine must be operated by instructed personnel (see section *2.2.2*).

7.2 Special safety instructions

⚠WARNING!

Crushing or entanglement hazard

Loose items of clothing can be caught in the transport system belt and cause serious crushing injuries as the machine is being operated.

► Ensure that the operators wear tight-fitting clothing.

⚠WARNING!

Crushing or entanglement hazard

The operator can be caught in the drive when reaching into or between the conveyor belt at the loading section or exit end. This can cause serious crushing of the fingers or hands.

► Do not reach into the conveyor belt during operation.

⚠CAUTION!

Chemical burns, sensitisation of the skin, poisoning

If the door is opened during operation, wash water can spurt out and cause injury.

- ► Press the CONVEYOR OFF button before opening the door.
- ► Do not open the door during operation.

⚠WARNING!

Danger of slipping

Moisture can build up on the machine floor and cause slipping.

- ► Provide a floor covering that is guaranteed to be non-slip in case of moisture.

7.3 Notes for optimum washing result

The rinse result is significantly affected by the water quality. If the mineral content is high, the minerals dissolved become visible on the glasses in the form of spots and streaks during the drying process.

Authorised HOBART service personnel can determine the content of minerals by measuring the electrical conductivity. Values of less than 80 µS/cm are non-critical for rinsing glasses and cutlery. If the values are higher, we recommend the use of a HOBART HYDROLINE desalination cartridge or a reverse osmosis system.

If you have any questions, please contact your authorised HOBART service partner.

7.4 Preparations for washing

7.4.1 Preparing the machine

- ► Hanging the curtains.

- ► Inserting the tank cover strainers.

► Inserting the strainer baskets.

► Inserting the intake strainer at the tank bottom (rinsing).

► Inserting the strainer in the rinsing area.

► Inserting the loading section strainer.

► Inserting the drying pan.

► Inserting wash arms:

Upper: Insert wash arm in side guides, move over retaining lug and click into place.

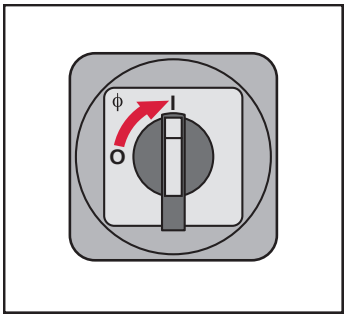
Lower: Move wash arm in side guides to end position and click into place.

- ► Close cleaning opening of the wash arms.
- ► Inserting rinse arms:
  Upper: Insert rinse arm into back opening, move from below into front guide and click into place.

Lower: Move rinse arm back in guides and click into place.

7.4.2 Turn on machine

- ► Open site shut-off valves.
- ► Check fill level of detergent and rinse aid containers.
- ► Close inspection doors.
- ► Pull the EMERGENCY STOP button.
- ► Turn on main switch.

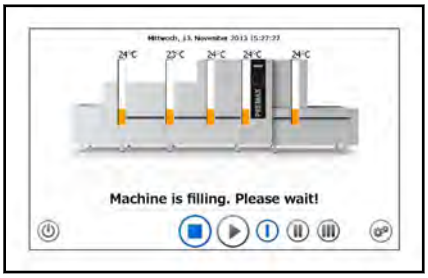


↳ Start screen is displayed.

- ► Switch on site vapour extractor.

► Press the MACHINE ON button.

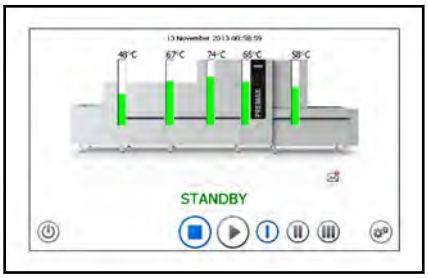
↳ The display changes to the main screen.



↳ The machine fills automatically and heats up to the operating temperature.

► Wait until the temperature display turns GREEN.

↳ The machine is ready for operation.



7.4.3 Load conveyor

NOTE: Remove coarse food soiling before washing. .

► Use the loading platform to stack plates.

► Let the plates slide individually into the conveyor.

► Load trays crosswise.

► TWIN-Line split machine: Load trays crosswise.

► Do not mix trays and plates or saucers (shadow zones).

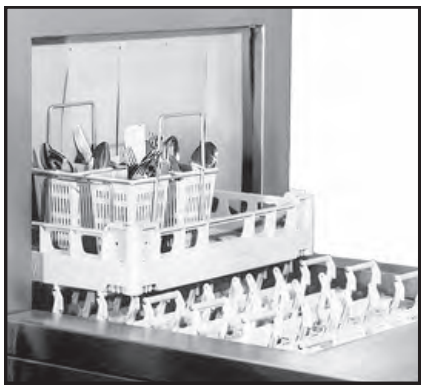
► Put soup cups with inclination to the machine on 2 pegs of conveyor.

► Do not place soup cups vertically on conveyor.

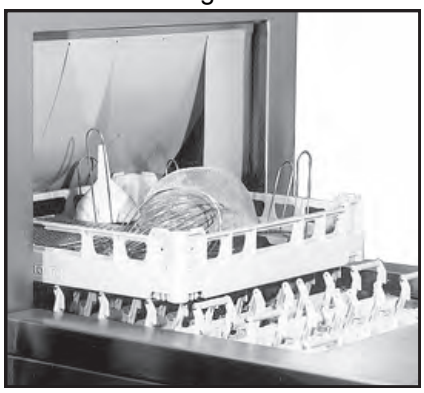
► Place glasses and cups with the opening downward into the rack. Glasses should not touch each other (break fracture).

Use a suitable rack!

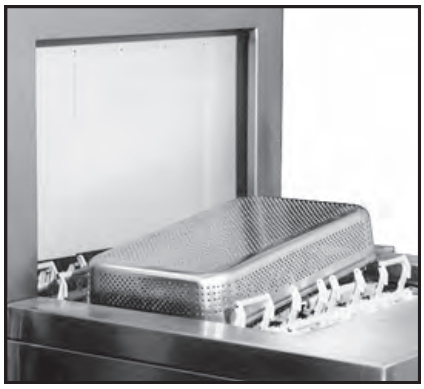
► Place cutlery vertically with handle downwards into cutlery racks.
Load cutlery unsorted.
Set the cutlery rack on a utensil rack.
Place the utensil rack onto conveyor.



► Wash items and utensils in utensil rack.
Do not allow grips, handles etc. to protrude through the crockery conveyor or over the rack edge.
Place the rack on the conveyor.

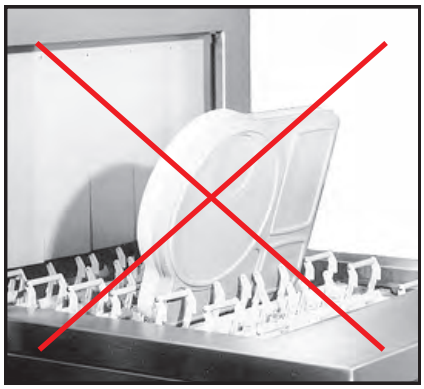


► Place gastronorm pans and other bowls with opening downwards.
Washware may not exceed maximum loading height and width.



► Pass through insulated trays with the openings downward and crosswise.

► Do not place insulated trays with openings upwards. Rinse water cannot then drain correctly.



► Allow the washware to be transported close to the end of the conveyor to give enough time to dry.

7.5 Functions and operating modes

7.5.1 Overview of functions

Name	Description	Features
Emergency stop	The machine can be switched off completely in case of emergency.	Series See section *7.6*
Conveyor speed	There are three speeds to choose from: slow, medium, fast.	Series See section *7.8*
Autotimer	Reduces energy, water and chemical consumption. The rinse process runs only when washware is in the machine.	Optional See section *8.7*
AutoStart and time settings	Enter settings for automatic commissioning, current date, summer and winter times.	Series See section *8.4* and section*8.5*
Changing prewash tank water	If heavy soiling occurs during operation, the prewash tank and the rinse aid tank pump can be drained and then refilled automatically.	Series See section *7.7.3*

Name	Description	Features
Emergency mode	The machine can be operated even if the required temperatures are not reached.	Series See section *7.12*
High-pressure washing	For washing heavily soiled washware, for example gastronorm pans.	Optional See section *7.9*
Conveyor return	To remove conveyor blockages, the conveyor can be operated backwards.	Series See section *7.10*
Locking the speed	The conveyor can be locked at the current speed.	Series See section *7.11*
Operating log	Displays consumption data, hygiene-relevant data and operating messages.	Series See section *8.3*
Messages	Messages can be stored on the machine display.	Series See section *7.18*
Machine documentation	Machine documentation and video can be shown via the machine display.	Series See section *7.19*

7.5.2 Operating modes

Rinsing without autotimer (activation via customer menu, see chapter *8.7*)

The machine rinses as soon as the conveyor is switched on. Prewashing, washing, rinsing and drying (if fitted) are activated immediately. Even if no washware follows, these functions run continuously until the conveyor is switched off.

Rinse with autotimer

The machine is ready to rinse as the conveyor is switched on. The rinse process starts only when washware is running in the machine. Prewashing, washing, rinsing and drying (if fitted) are activated automatically. If no washware follows, these functions switch off automatically.

Exhaust fan, drying blower and drive run on for a set time. The run-on times can be changed by authorised service personnel.

Standby mode

If no washware is delivered for a pre-defined time, the autotimer switches off the conveyor.

If further washing is required, the CONVEYOR ON button must be pressed again.

Emergency operation

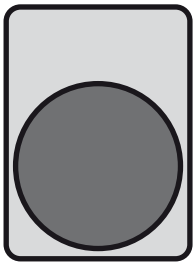
The machine can be operated even if the required temperatures are not reached. When emergency mode is activated, the machine no longer conforms to DIN 10534, DIN 10510, and DIN 10522. Emergency mode activation, see Chapter *7.12*.

7.6 Pressing the EMERGENCY STOP button

The machine can be **switched off** completely in case of emergency.

The EMERGENCY STOP button must be unlocked during operation.

► Press the EMERGENCY STOP button.



↳ The machine will be switched off.
↳ However, the machine is not voltage free.

7.7 Washing

7.7.1 Operation without autotimer

Operation without autotimer (activation via customer menu, see chapter *8.7*)

► Briefly press the CONVEYOR ON button.

↳ The button illuminates blue.
↳ The information display shows the text: **Conveyor running**
↳ The conveyor switches on.
↳ The button for the selected speed illuminates blue.
↳ Prewashing, washing, rinsing and drying are activated immediately.

► Allow the washware enough time to dry.

7.7.2 Operating with autotimer (option)

Operation with autotimer

► Briefly press the CONVEYOR ON button.

↳ The button illuminates blue.
↳ The information display shows the text: **Conveyor running**
↳ The conveyor switches on.
↳ The button for the selected speed illuminates blue.
↳ Prewashing, washing, rinsing and drying are activated only if washware is running in the machine.

► Allow the washware enough time to dry.

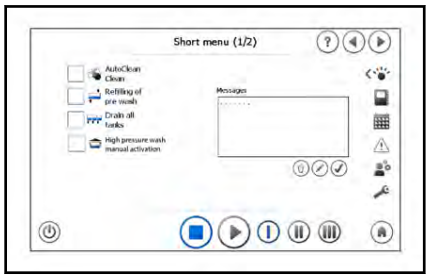
NOTE: If no further washware is delivered over a pre-defined time, the machine switches to standby mode. If further rinsing is required, the CONVEYOR ON button must be pressed again.

7.7.3 Operation with heavy soiling

If heavy soiling occurs during operation, the prewash tank and the rinse pump tank can be drained and then refilled automatically.

► Briefly press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.



► Select **Change prewash tank water** input field.

↳ The prewash tank is drained and refilled.

► Briefly press the HOME button.

↳ The display returns to the main screen.

As soon as the temperature display illuminates green, the machine is operational again.

7.8 Selecting the conveyor speed

The machine can be operated at three conveyor speeds.

The conveyor speed is shown in the display.

Slow:

Medium:

Fast:

Selecting the conveyor speed:

Machine is operational and switched on.

► Press the SPEED 1, 2 or 3 button to select the required conveyor speed.

↳ The active speed illuminates **blue**.

↳ The conveyor switches immediately to the selected speed.

7.9 Manually activating and deactivating high-pressure washing

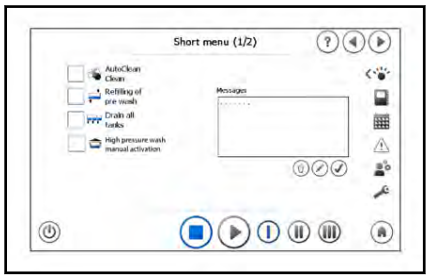
If ordered, the manual high-pressure washing can be activated or deactivated via the operator menu.

In the **Quick menu (1**/2) menu option, manual high-pressure washing can be activated.

Activating or deactivating manual high-pressure washing:

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.



► Select the **Manually activate high-pressure washing** input field.

► To deactivate high-pressure washing, press the **Manually activate high-pressure washing** input field again.

► To exit the menu, press the HOME button.

7.10 Activating conveyor return

In the **Customer menu (1/1**) menu option, the conveyor return can be activated.

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.

► Press the USER button.

↳ The display changes to **Customer menu (1/1)**.

↳ The login window appears.

► Enter user name **user3** and password **u333**3 and confirm.

► Keep the CONVEYOR RETURN button pressed for a maximum of 2.5 seconds.

WARNING! Risk of being crushed and cut!
The operator can be caught in the drive when reaching into or between the conveyor belt at the loading section or exit end. This can cause serious crushing of the fingers or hands.
Do not reach into the machine or conveyor belt.

► Release the CONVEYOR RETURN button and press the CONVEYOR ON button again at least once.

↳ The CONVEYOR RETURN button can be pressed again.

► To exit the menu, press the HOME button.

7.11 Locking the conveyor speed

In the **Customer menu (1/1**) menu option, the conveyor speed can be locked.

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.

► Press the USER button.

↳ The display changes to **Customer menu (1/1)**.
↳ The login window appears.

► Enter user name **user3** and password **u333**3 and confirm.
► Activate the required setting by selecting **Speed**.

↳ The currently set speed can no longer be changed.

► To exit the menu, press the HOME button.

7.12 Activating emergency mode

In the **Customer menu (1/1**) menu option, emergency mode can be activated.

NOTE: When emergency mode is activated the machine no longer conforms to DIN SPEC 10534, DIN 10510, and DIN 10522.

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.

► Press the USER button.

↳ The display changes to **Customer menu (1/1)**.
↳ The login window appears.

► Enter user name **user3** and password **u333**3 and confirm.
► Activate the required setting by selecting **Emergency mode**.

► To exit the menu, press the HOME button.

7.13 Displaying faults

In the **Faults and information (1/2**) menu option, fault messages are listed.

Faults and information (1/2)

For potential fault messages see *9.2*.

Functions:

– Display minor and major fault messages.
– Display information on the fault messages.
– Acknowledge fault messages.

Display and process fault messages:

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.

► Press the FAULT button.

↳ The display changes to **Faults and information (1/2).**

↳ All fault messages are displayed.

► ***Show only major or minor faults:***

► From the selection field **All faults** select the required message category.

↳ Major faults: Display field frames and symbols are **red**.

↳ Minor faults: Display field frames and symbols are **yellow**.

► ***Rectifying faults:***

► Tap to select the required fault message.

► Press the INFORMATION button.

↳ A help message for rectifying the fault appears.

► Rectifying faults using the help text.

► Close help text.

► ***Acknowledging faults:***

► Tap to select the required fault message.

► Select **ACKNOWLEDGE selected fault** input field.

► To exit the menu, press the HOME button.

7.14 Switch off conveyor

If required, the conveyor can be switched off manually.

Switching off the conveyor:

► Briefly press the CONVEYOR OFF button.

↳ The conveyor and washing switch off.

↳ The tanks are not drained.

↳ The heaters are not switched off.

↳ Exhaust fan and drying blower continue to run.

Restarting the conveyor:

► Briefly press the CONVEYOR ON button.

↳ Conveyor starts immediately.

7.15 Executing daily cleaning

⚠WARNING!

Risk of electric shock, fire hazard

If the machine is cleaned from the outside with a jet of water, water can penetrate the machine and flow over live components. This can cause injuries through electric shock or fire.

► Do not spray the outside of the machine with a water hose or high-pressure cleaner.

⚠CAUTION!

Risk of being cut

When cleaning the machine, sharp edges of sheet parts can cause cut injuries.

► Wear protective gloves.

⚠CAUTION!

Burning

When cleaning the machine after the tanks have been emptied, the tank heaters can still be hot and cause burning.

► Wear protective gloves.

NOTICE!

Property damage

The use of unsuitable agents can cause corrosion or damage to the surfaces.

► Do not use any chlorine-containing, acidic or metal-containing additives to clean the machine.

► Do not use metal sponges.

► Turn off main switch or remove the plug.

► Open the door.

7.15.1 Carrying out daily cleaning without AUTOCLEAN

Please observe your in-house hygiene guidelines.

► Briefly press the CONVEYOR OFF button.

► Briefly press the OPERATOR MENU button.

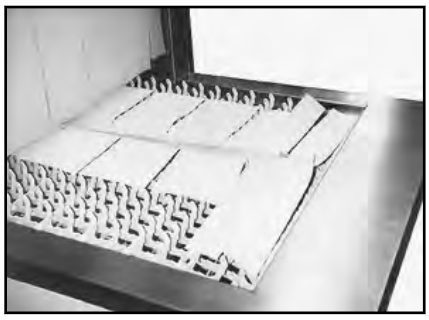
↳ The display changes to the operator menu screen.

► Select **Drain water from all tanks** input field.

► Open inspection doors.

► Removing and cleaning curtains:
– Unhook curtains and pull forwards.

– Open curtains, lay longitudinally on the conveyor belt and clean.



► Remove the strainer baskets.

► Remove the flat strainers.

► Hose down and brush the strainer.
CAUTION! Damage to property!
Do not strike strainer! Strainer could be bent and will no longer fit.

► Remove the rinse strainer.

► Remove insert strainers on the tank bottom (rinsing).

► Remove the intake strainer.

► Remove the drying pan.

► Removing wash arms and cleaning:
CAUTION! Risk of crushing!
When removing the wash arm, the upper wash arm can fall and cause crushing. Carefully remove the wash arm.

– Upper: Lift up the wash arm via the retaining lug and pull out forwards.

– Lower: Lift up the wash arm and pull forwards.

– To clean, slide open the closure and spray down the wash pipes.
– Check jet openings and clean as required.

► Removing and cleaning rinse arms:

– Upper: Pull the spring forward and remove the rinse arm.

– Lower: Raise rinse arm and pull forwards.

– Check jet openings and clean as required.

► Raise the cover at the loading section.

Hose down the inside.

► Remove the side cover at the exit end.

Clean the exit end.

► Hose down the machine interior and clean.

► Check the interior for residual soiling and washware parts and remove as required.

7.15.2 Carrying out daily cleaning with AUTOCLEAN

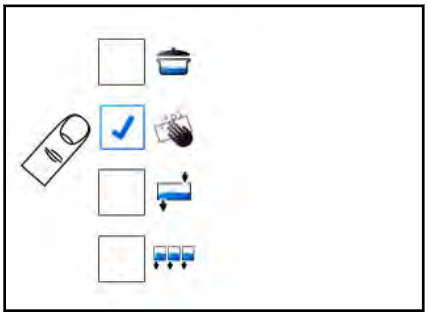
Please observe your in-house hygiene guidelines.

► Briefly press the CONVEYOR OFF button.

► Briefly press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.

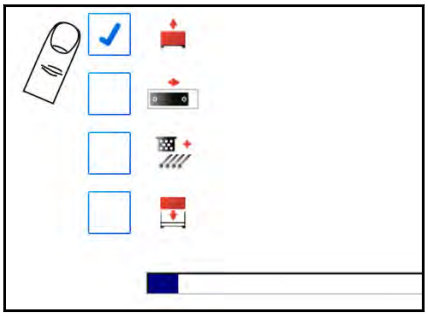
► Select **AUTOCLEAN** input field.



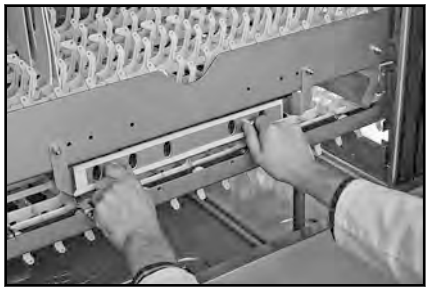
↳ The display changes to the AUTOCLEAN menu.

► Open inspection doors.

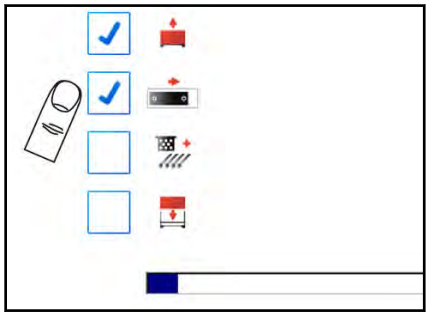
► To confirm: Select **OPEN doors** input field.



► Fully open the wash arm strainer.



► To confirm: Select **OPEN wash systems** input field.



► Remove the strainer baskets.

► Remove the flat strainers.

► Hose down and brush the strainer.
CAUTION! Damage to property!
Do not strike strainer! Strainer could be bent and will no longer fit.

► Remove the rinse strainer.

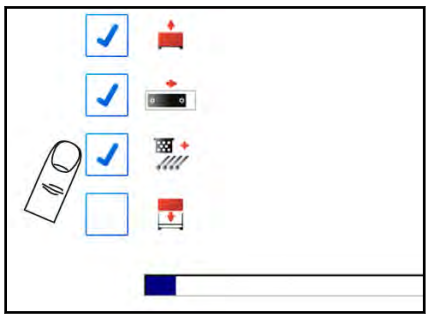
► Remove insert strainers on the tank bottom (rinsing).

► Removing and cleaning rinse arms:
– Upper: Pull the spring forward and remove the rinse arm.

– Lower: Raise rinse arm and pull forwards.

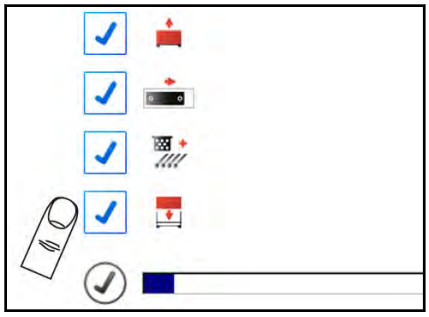
– Check jet openings and clean as required.

► To confirm: Select input field **REMOVE strainers and rinse arms**.

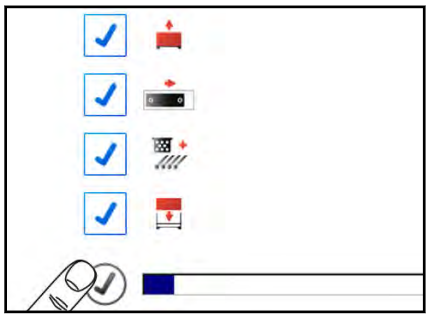


► Close inspection doors.

► To confirm: Select input field **CLOSE doors**.



► To start AUTOCLEAN: Select tick box symbol.



↳ The AUTOCLEAN sequence runs.

↳ When the AUTOCLEAN process ends, additional procedures to be carried out are displayed in the right-hand side of the operator menu.

► Carry out and confirm all completed procedures.

► Remove the intake strainer.

► Remove the drying pan.

► Raise the cover at the loading section.

Hose down the inside.

► Remove the side cover at the exit end.

Clean the exit end.

► Check the interior for residual soiling and washware parts and remove as required.

► Select **Drain water from all tanks** input field.

↳ The machine can be switched off as soon as the tanks are empty.

► Press the MACHINE OFF button for five seconds.

↳ The machine switches off.

↳ Exhaust air blower and dryer blower may run on.

7.16 Switch off machine

NOTE: The machine is not voltage-free after being switched off!

Before switching of the machine, drain the tanks and clean the interior.

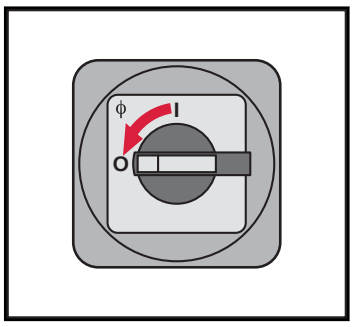
Switching off the machine:

► Press the MACHINE OFF button.

↳ The machine switches off

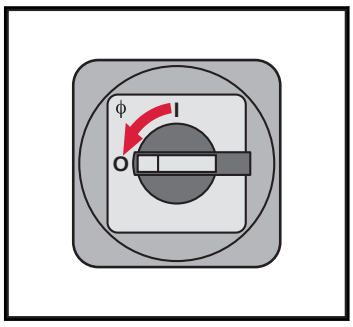
↳ Exhaust air blower and dryer blower may run on

► Turn off main switch.



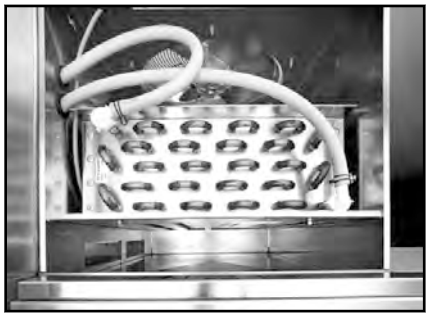
7.17 Performing monthly cleaning

► Turn off main switch.

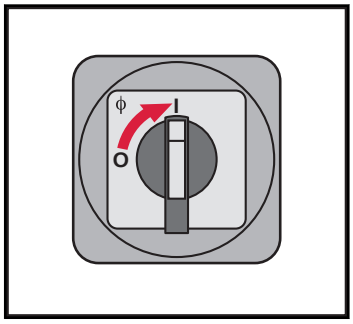


► Remove covers at the condenser cover.

► Clean condensers (hose down).



► Turn on main switch.



↳ The start screen appears.

► Press the OPERATOR MENU button.

↳ The display changes to the Quick menu screen.

► Select input field **Drain water from all tanks.**

↳ The tank drains will re-open.

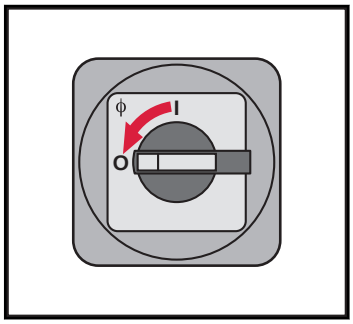
► Wait until all tanks are completely drained.

► Press the MACHINE OFF button for five seconds.

↳ The machine switches off.

↳ Exhaust air blower and dryer blower may run on.

► Turn off main switch.



► Close local shut-off valves.

► Leave inspection doors open for ventilation.

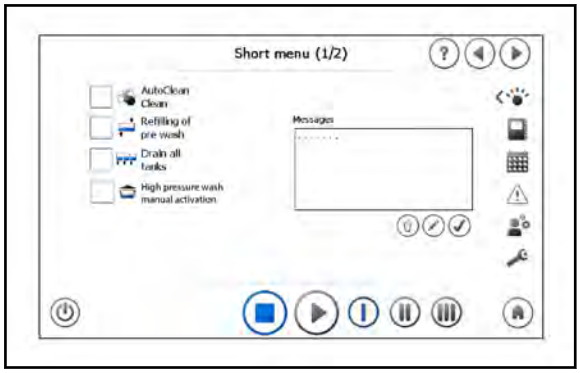
7.18 Entering messages

In the **Quick menu (1/2)** menu option, messages can be entered, confirmed and deleted.

Entering messages:

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.



► Press the PEN button.

↳ The text field turns yellow.

► Tap the text field

↳ The keyboard opens.

► Enter message.

↳ Message is saved.

↳ The message symbol is displayed in the main screen.

► To exit the menu, press the HOME button.

In the **Quick menu (1/2)** menu option, messages can be entered, confirmed and deleted.

To confirm message:

► **Quick menu (1/2)** menu option opens.

► Press the PEN button.

↳ The text field turns yellow.

► Press the CONFIRM button.

↳ The message symbol is deleted in the main screen.

↳ The message remains in the message input field and can be re-used.

► To exit the menu, press the HOME button.

In the **Quick menu (1/2)** menu option, messages can be entered, confirmed and deleted.

Deleting messages:

► **Quick menu (1/2)** menu option opens.

► Press the PEN button.

↳ The text field turns yellow.

► Press the DELETE button.

↳ The message symbol is deleted in the main screen.
↳ The message is deleted in the message input field.

► To exit the menu, press the HOME button.

7.19 Displaying machine documentation

In the **Quick menu (2/2)** menu option, videos and machine documentation can be displayed.

Showing videos:

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.

► Press the FORWARDS button.

↳ The display changes to **Quick menu (2/2)**.

► Select **Cleaning instructions VIDEO.**

↳ The media player opens and the video can be started.

► To exit the menu, press the HOME button.

Displaying the PDF files for the machine:

► Open **Quick menu (2/2)** menu option.
► Select **PDF operating instructions.**

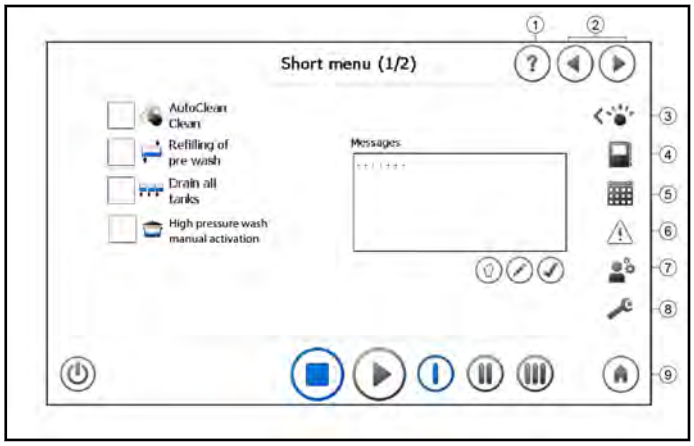
↳ The Windows PDF Reader opens and the documentation is shown.

► To exit the documentation, close PDF Reader.
↳ The display changes to the start screen.

8 Setting options, operating and hygiene data

8.1 Overview of operator menu

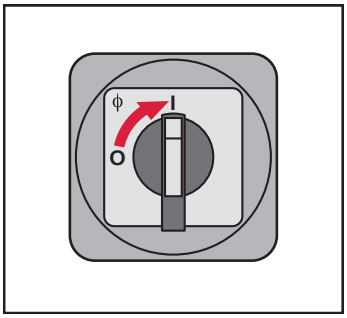
In the operator menu, machine functions are selected and operating data, faults and information messages are displayed.



	Title	Function
①	Help	Displays help on the menu
②	Forwards/backwards	Scroll in the menu
③	Quick menu	Select machine functions
④	Operating data	Enter and display operating data
⑤	AutoStart	Enter AutoStart and time settings
⑥	Fault	Display fault and information messages
⑦	User menu	Open the user menu, login required
⑧	Service	Only for authorised service personnel, login required
⑨	Home	Back to the main screen

8.2 Opening the operator menu

► Turn on main switch.

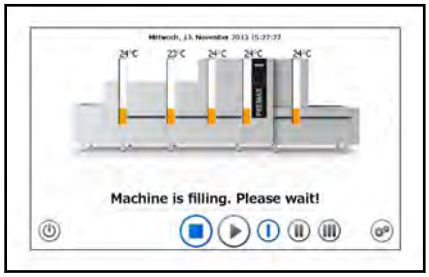


↳ Start screen is displayed.

► Switch on site vapour extractor.

► Press the MACHINE ON button.

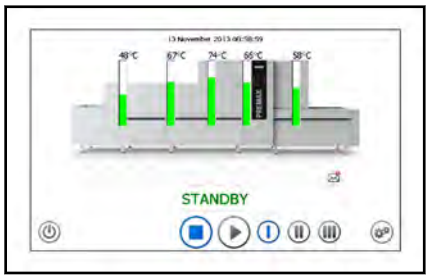
↳ The display changes to the main screen.



↳ The machine fills automatically and heats up to the operating temperature.

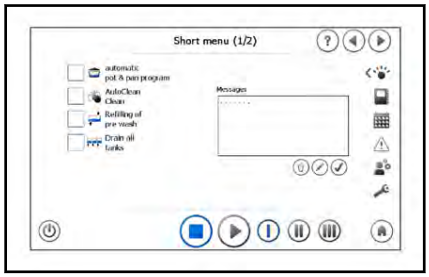
► Wait until the temperature display turns GREEN.

↳ The machine is ready for operation.



► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.



8.3 Displaying the operating/hygiene data

In the **Operating log** menu option, consumption data, hygiene-relevant data and operating messages are listed.

Operating log (1/4)

Functions:

– Indicates operating hours for machines, conveyor and washing.
– Indicates consumption values for energy, fill water and rinse water (sometimes optional).

Operating log (2/4)

Functions:

– Enter container replacement for detergent or rinse aid.
– Enter detergent concentration check.
– Enter carrying out of basic cleaning or decalcifying.
– Enter carrying out repairs or maintenance.

Operating log (3/4)

Function:

– Display all available operating log entries.

Operating log (4/4)

Function:

– Display all operating log entries filtered according to day, month and year.

Displaying or entering operating and hygiene data:

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.

► Press the OPERATING DATA button.

↳ The display changes to the **Operating log**.

► Select required entries.

► Press the CONFIRM button.

↳ Confirmation message is displayed.

► To navigate press the FORWARDS and BACKWARDS button.

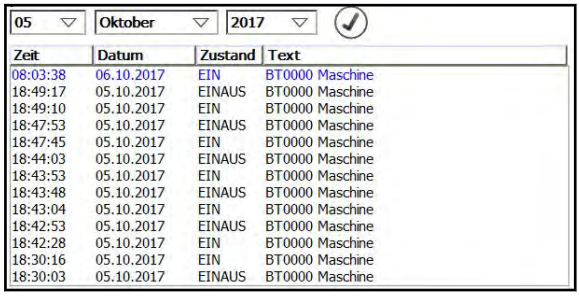
► To exit the menu, press the HOME button.

8.3.1 Retrieve the operating/hygiene data via USB

To copy the operating log entries to a USB stick:

► Insert USB stick

► In the "Operating log (4/4)" menu, set the required date.



Zeit	Datum	Zustand	Text
08:03:38	06.10.2017	EIN	BT0000 Maschine
18:49:17	05.10.2017	EINAUS	BT0000 Maschine
18:49:10	05.10.2017	EIN	BT0000 Maschine
18:47:53	05.10.2017	EINAUS	BT0000 Maschine
18:47:45	05.10.2017	EIN	BT0000 Maschine
18:44:03	05.10.2017	EINAUS	BT0000 Maschine
18:43:53	05.10.2017	EIN	BT0000 Maschine
18:43:48	05.10.2017	EINAUS	BT0000 Maschine
18:43:04	05.10.2017	EIN	BT0000 Maschine
18:42:53	05.10.2017	EINAUS	BT0000 Maschine
18:42:28	05.10.2017	EIN	BT0000 Maschine
18:30:16	05.10.2017	EIN	BT0000 Maschine
18:30:03	05.10.2017	EINAUS	BT0000 Maschine

► Press the CONFIRM button.

↳ The data will be saved to the USB stick.

► Do not remove the USB stick during the save operation!

► As soon as the save operation is complete, remove the USB stick

► Close off the USB port again

8.4 Setting the automatic commissioning

In the **AutoStart and time settings (1/2)** menu option, enter the settings for automatic start-up.

AutoStart and time settings (1/2)

Functions:
– Select and activate week day.
– Enter start times.

Setting the automatic start-up:

► Press the OPERATOR MENU button.

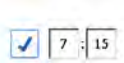
↳ The display changes to the operator menu screen.

► Press the AUTOSTART button.

↳ The display changes to **AutoStart and time settings (1/2).**
↳ The login window appears.

► Enter user name **user3** and password **u333**3 and confirm.
► Select the required week day to activate.

► ***Enter start time:***
  ► Tap the Start time input field.
    ↳ Input screen appears.
  ► Enter start time.



  ► Close input screen.
► If there are no further settings to be made, press the LOGOUT button.
► To exit the menu, press the HOME button.

8.5 Entering the time settings

In the **AutoStart and time settings (2/2)** menu option, the time settings are entered.

AutoStart and time settings (2/2)
Functions:
– Enter the current date.
– Enter the start of summer and winter time.

Entering the time settings:

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.

► Press the AUTOSTART button.

↳ The display changes to **AutoStart and time settings (1/2).**
↳ The login window appears.

► Enter user name **user3** and password **u333**3 and confirm.
► Press the FORWARDS button.

↳ The display changes to **AutoStart and time settings (2/2).**

► ***Entering the current date: :***

► Press the PEN button.

► Tap the individual input fields.
↳ Input screen appears.
► Enter the Day, Month, Year and Time.
► Press the CONFIRM button.

► ***Enter the start of summer and winter time:***
► Tap the individual input fields.
↳ Input screen appears.
► Enter the Day, Month and Time.
↳ Summer or winter time is now activated.
► To deactivate the summer or winter time, enter **0** in the month input field.
► If there are no further settings to be made, press the LOGOUT button.
► To exit the menu, press the HOME button.

8.6 Displaying information

In the **Faults and information (2/2**) menu option, information messages are listed.

Faults and information (2/2)

For potential information messages see *9.2*.

Functions:

– Display information messages.

Displaying information messages:

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.
► Press the FAULT button.

↳ The display changes to **Faults and information (1/2).**
↳ All fault messages are displayed.
► Press the FORWARDS button.

↳ The display changes to **Faults and information (2/2)**
↳ All information is displayed.
► To exit the menu, press the HOME button.

8.7 Setting customer options

In the **Customer menu (1/1)** menu option, the settings for customer options are entered.

Customer menu (1/1)

Functions:

– Set hygiene control.
– Set emergency mode.
– Activate or deactivate autotimer.
– Use conveyor return.
– Control the speed.

Setting the hygiene control:

► Press the OPERATOR MENU button.

↳ The display changes to the operator menu screen.

► Press the USER button.

↳ The display changes to **Customer menu (1/1)**.
↳ The login window appears.

► Enter user name **user3** and password **u333**3 and confirm.
► Activate the required setting by selecting **Hygiene control**.

► To exit the menu, press the HOME button.

NOTE: When emergency mode is activated the machine no longer conforms to DIN SPEC 10534, DIN 10510, and DIN 10522.

Activating emergency mode:

► Open **Customer menu (1/1).**
► Enter user name **user3** and password **u333**3 and confirm.
► Activate the required setting by selecting **Emergency mode**.

► To exit the menu, press the HOME button.

Activating autotimer:

► Open **Customer menu (1/1).**
► Enter user name **user3** and password **u333**3 and confirm.
► Activate the required setting by selecting **autotimer**.

► To exit the menu, press the HOME button.

Activating conveyor return:

► Open **Customer menu (1/1).**
► Enter user name **user3** and password **u333**3 and confirm.
► Keep the CONVEYOR RETURN button pressed for a maximum of 2.5 seconds.

WARNING! Risk of being crushed and cut!

The operator can be caught in the drive when reaching into or between the conveyor belt at the loading section or exit end. This can cause serious crushing of the fingers or hands.
Do not reach into the machine or conveyor belt.

► Release the CONVEYOR RETURN button and press the CONVEYOR ON button again at least once.

↳ The CONVEYOR RETURN button can be pressed again.

► To exit the menu, press the HOME button.

Locking the speed:

► Open **Customer menu (1/1).**

► Enter user name **user3** and password **u3333** and confirm.

► Activate the required setting by selecting **Speed**.

↳ The currently set speed can no longer be changed.

► To exit the menu, press the HOME button.

9 Fault indications and problems

9.1 Special safety instructions

⚠WARNING!

Risk of electric shock

When replacing worn or faulty parts, contact with current-carrying parts can cause serious injuries through electric shock.

► Have these activities carried out only by certified, qualified personnel.

9.2 Fault indications

Faults and information (1/2)
Fault messages

Displayed fault messages are shown in the order of priority. They **must** be acknowledged in the **Faults and information (1/2)** menu.

Acknowledged fault messages for which the error is still pending are first hidden to enable further messages to be displayed.

If all fault messages have been acknowledged but errors are still pending, these messages will then be shown again.

Fault: Major error

– Display field frames and symbols are **red**.
– The warning symbol appears in the symbol display: Exclamation mark is **red**.
– The text: **Fault!** appears in the information display
– For potential faults, see table.

Fault indications and problems

Fault: Minor error

– Display field frames and symbols are **yellow**.
– The warning symbol appears in the symbol display: Exclamation mark is **yellow**.
– The text: **Fault!** appears in the information display
– For potential faults, see table.

Overview of fault messages

Error code	Message text
H0000	Temperature error Prewash
H0001	Temperature error Washing 1
H0002	Temperature error Washing 2
H0003	Temperature error Washing 3
H0004	Temperature error Pumped rinse
H0005	Temperature error Freshwater rinse
H0006	Temperature error Drying
H0007	Temperature error demiboiler
H0008	Temperature Fill boiler
H0009	Temperature error THD
H0010	Temperature error nc
H0011	Temperature error nc
H0100	Temperature control: Check Prewash
H0101	Temperature control: Check Washing 1
H0102	Temperature control: Check Washing 2
H0103	Temperature control: Check Washing 3
H0104	Temperature control: Check pumped rinse
H0105	Temperature control: Check freshwater rinse
H0106	Temperature control: Check dryer
H0107	Temperature control: Check demiboiler
H0108	Temperature control: Check fill boiler
H0109	Temperature control: Check THD
H0110	Temperature control: Check xxx
H0111	Temperature control: Check xxx
S0000	Motor protection switch Prewash
S0001	Motor protection switch washing(s)
S0002	Motor protection switch Suction/external
S0003	Motor protection switch blower
S0004	Motor protection switch Pumped rinse
S0005	Motor protection switch Freshwater rinse
S0006	Motor protection switch conveyor
S0007	Motor protection Compressor rinse circuit
S0008	Motor protection Compressor tank circuit
S0009	Motor protection Booster pump
S0010	Motor protection Tank circulation
S0011	Motor protection Fan tank circuit/external
S0012	Motor protection Fan rinse circuit
S0013	Motor protection switch Line-balancing/demagnetiser
S0014	Motor protection switch Lift magnet
S0015	Motor protection switch Infeed
S0016	Motor protection switch E-Prewash
S0017	Motor protection switch Washing 2
S0018	Motor protection switch Washing 3
S0021	Monitoring FU split machine
S0024	Monitoring ASR pump

Error code	Message text
S0201 S0202 S0203 S0204	Monitoring flow rate filling Monitoring flow rate rinsing Monitoring flow rate demin water Monitoring flow rate dip pipe
S0240 S0241 S0242 S0243 S0244 S0245 S0246 S0247	Stacker/queueing track full Stacker not present Fault infeed Destacker not in operation or not OK Double destacker : Stacker not present Double destacker: Swivel arm not in position Double destacker: Safety chain (FU) Double stacker: Deflector occupied
S0250	Conveyor blocked
S0260	EMERGENCY OFF
S0270 S0271 S0272	Fill time exceeded Tank Fill time exceeded Boiler Fill time exceeded duo tank
S0280 S0281	AUTOCLEAN filling AUTOCLEAN dosing
S0290	Doors/covering opened
S0300 S0301 S0302 S0303	Low-pressure coolant tank circuit High-pressure coolant tank circuit Low-pressure coolant rinse circuit High-pressure coolant rinse circuit
S0400 S0401 S0402 S0403 S0404 S0405 S0406 S0410 S0411 S0412 S0413 S0414 S0415 S0416	Wash system Prewash faulty Wash system Washing 1 faulty Wash system Washing 1 DA faulty Wash system Washing 2 faulty Wash system Washing 3 faulty Wash system Pumped rinse faulty Fresh water rinse system faulty Wash system Prewash not ready Wash system Washing 1 not ready Wash system Washing 1 DA not ready Wash system Washing 2 not ready Wash system Washing 3 not ready Wash system Pumped rinse not ready Fresh water rinse system not ready
S0421 S0422 S0423 S0424 S0425 S0426 S0427 S0428 S0429	Heating Prewash faulty Heating Washing 1 faulty Heating Washing 2 faulty Heating Washing 3 faulty Heating Pumped rinse faulty Heating Freshwater rinse faulty Heating Dryer faulty Heating demin water boiler faulty Heating Fill boiler faulty

Error code	Message text
S0440 S0441 S0442 S0443 S0444 S0445 S0446 S0447 S0448 S0449	Leak on Prewash drain Drain Prewash does not open Leak on Washing 1 drain Washing 1 drain does not open Leak on Washing 2 drain Washing 2 drain does not open Leak on Washing 3 drain Washing 3 drain does not open Leak on Pumped rinse drain Pumped rinse drain does not open
S0450 S0451 S0452 S0453 S0454 S0455	Strainer fault Prewash Strainer fault Wash tank 1 Strainer fault Wash tank 2 Strainer fault Wash tank 3 Strainer fault Rinsing pump Strainer fault E-Prewash
S0460 S0462 S0463 S0464 S0465 S0466	Pump fault Prewash tank Pump fault Washing 1 Pump fault Washing 2 Pump fault Washing 3 Pump fault Pumped rinse Pump fault Freshwater rinse
S9992 S9994 S9995 S9996 S9997 S9998	PAC31xx : Connection faulty Data memory loss Dokutronic : Connection faulty CPU 2: Connection faulty SD data export SD data import

Faults and information (2/2)
Information

In the **Faults and information (2/2**) menu option, information messages are listed.

Information

– Information messages are displayed only in the operator menu.
– Warning symbol: Exclamation mark is **blue**.
– For potential messages, see table.

Information overview

Error code	Message text
I0009	Drain Prewash
I0010	Drain valve Washing(s) opened
I0011	Service interval reached
I0012	Limit switch rack actuated or belt limit switch actuated
I0014	Cleaning progr. 360°
I0016	Washing ON without OK
I0017	Service interval advance notice
I0018	Stacker 80%

Error code	Message text
I0400	Wash system Prewash faulty
I0401	Wash system Washing 1 faulty
I0402	Wash system Washing 1 DA faulty
I0403	Wash system Washing 2 faulty
I0404	Wash system Washing 3 faulty
I0405	Wash system Pumped rinse faulty
I0406	Fresh water rinse system faulty
I0410	Wash system Prewash not ready
I0411	Wash system Washing 1 not ready
I0412	Wash system Washing 1 DA not ready
I0413	Wash system Washing 2 not ready
I0415	Wash system Pumped rinse not ready
I0416	Fresh water rinse system not ready
I0421	Heating Prewash faulty
I0422	Heating Washing 1 faulty
I0423	Heating Washing 2 faulty
I0424	Heating Washing 3 faulty
I0425	Heating Pumped rinse faulty
I0426	Heating Freshwater rinse faulty
I0427	Heating Dryer faulty
I0428	Heating demin water boiler faulty
I0429	Heating Fill boiler faulty
I0440	Leak on Prewash drain
I0441	Drain Prewash does not open
I0442	Leak on Washing 1 drain
I0443	Washing 1 drain does not open
I0444	Leak on Washing 2 drain
I0445	Washing 2 drain does not open
I0446	Leak on Washing 3 drain
I0447	Washing 3 drain does not open
I0448	Leak on Pumped rinse drain
I0449	Pumped rinse drain does not open
I0450	Strainer fault Prewash
I0451	Strainer fault Wash tank 1
I0452	Strainer fault Wash tank 2
I0453	Strainer fault Wash tank 3
I0454	Strainer fault Rinsing pump
I0455	Strainer fault E-Prewash
I0460	Soiling sensor (SoilControl)
BT0001	Wash
BT0000	Mashine
BT0002	Fault
BT0003	Machine drain
BT0004	Belt ON Speed 1
BT0005	Belt ON Speed 2
BT0006	Belt ON Speed 3
BT0030	Container change Rinse aid
BT0031	Container change Detergent
BT0032	Detergent concentration OK
BT0032	Detergent concentration not OK
BT0033	Basic clean carried out
BT0040	AUTOCLEAN

Error code	Message text
BT0050 BT0070 BT0071 BT0072	Machine in emergency mode Repair carried out Maintenance carried out Service message
BT0100	Temp.: x x x x x x x temperature

9.3 Remedying the problem

9.3.1 Poor wash result

Nature of the problem	Possible cause	Remedy
Washware not clean.	Strainers wrongly positioned.	Check strainers.
	Curtains not or incorrectly hung.	Check curtains.
	Wash jets clogged.	Clean wash arms.
	Insufficient detergent.	Check detergent dosing, or have supplier reset as required.
	Excess foam.	Use non-foaming detergent.
	Not properly pre-scrapped.	Pay attention to better pre-scrapping.
	Temperatures too low.	Check heaters.
	Conveyor speed too high.	Select lower speed.
Washware does not dry properly.	Rinse aid dosing too low.	Increase concentration (see operating instructions).
	Washware still greasy.	Detergent concentration too low: increase (see operation instructions). Check if detergent is appropriate. If not, choose a stronger one. Drain contaminated water and refill machine. Ensure better pre-scrapping of the washware.
	Temperature or humidity of the drying air incorrect.	Check heating rods and dryer fan.
	Conveyor speed too high.	Select lower speed.
Streaks and spots on washware.	Strainers wrongly positioned.	Check strainers.
	Wash water splashes into rinse section.	Check curtains.
	Rinse jets clogged.	Clean jets.
	Incorrect rinse aid dosing.	Check dosing device and have it adjusted.
	Mineral content of rinse water too high.	Check mineral content of the water.

9.3.2 Other problems

Nature of the problem	Potential causes	Remedy
No initial fill of boiler possible.	Site water supply is closed off.	Re-open site water valve and re-start.
	Fault in the filling system.	Inform customer service.

Nature of the problem	Potential causes	Remedy
Tank filling takes too long.	Dirt trap clogged.	Clean dirt trap.
	Faulty solenoid valve.	Inform customer service.
	Site shut-off valve opened incorrectly.	Shut-off valve fully open.
Tank does not fill.	Fill time to short.	Inform customer service.
	Site shut-off valve opened incorrectly.	Shut-off valve fully open.
Steam escaping at loading section or exit end.	Vapour extraction too low.	Inform customer service.
	Curtains hung incorrectly.	Check curtains.
	Too much wash water splashes into the loading section.	Check wash arms, curtains and baffle plate. Position washware correctly.
	Dryer baffle plate mis-aligned.	Adjust the slide at the drying jet.
Temperatures too low.	Vapour extraction too high.	Inform customer service.
	Heaters faulty.	Check heaters, inform customer service as required.
Washware is overturned.	Water pressure from below too strong.	Inform customer service.
	Upper wash arms clogged.	Clean wash arms.
Machine not operating, no information in display.	Main switch turned off, machine is completely without power.	Turn on main switch, re-start machine.
	Emergency Stop button pressed, machine is completely without power.	Turn on Emergency Stop button, re-start machine.
	Power outage	Check site fuses.

10 Maintenance

In order to maintain the warranty, as well as a permanently safe, efficient, and trouble-free operation of the machine(s), the required maintenance must be carried out by authorized service technicians.

We therefore recommend the conclusion of an inspection and maintenance contract, which guarantees qualified support by specially trained service technicians according to a time schedule based on the operating conditions.

Genuine spare parts must be used for repairs and wearing part replacements. Wearing parts include dosing hoses, rinse arm bearings, etc.

In Germany, your HOBART machines and systems are governed by the Ordinance on Industrial Health and Safety and must be inspected by a qualified electrician in accordance with the intervals specified in DGUV V3 (BGV A3).

Additional nationally-applicable directives must be observed accordingly.

Dishwashers with CLIMATE-PRO

The CLIMATE-PRO installed in your dishwasher contains fluorinated greenhouse gases covered by the Kyoto Protocol and therefore falls within the scope of EC Regulation 517/2014.

– If refrigerant loss is suspected, a leakage test by certified personnel must be arranged as soon as possible, and if necessary, the repair.
– Any detected leakage must be rectified immediately by certified personnel.
– After a leak has been repaired, the equipment must be checked again for leakage within one month by certified personnel.
– When putting the equipment out of operation, the refrigerant contained in the equipment must be disposed of properly by certified personnel.
– The above-mentioned diagnoses and/or measures must be documented. These records must be kept for a minimum of 5 years and submitted to the competent authority on request.

For machines with fill quantities > 5t CO_2 equivalent (> 3.5 kg R134a), the following must also be observed:

– Equipment containing the refrigerant has to be checked for leakage by certified personnel at least once every 12 months.

All inspection, diagnoses and measures must be documented in the log book provided with the machine or in the following forms.

Records of leak tightness test results **Information on the manufacturer:** **HOBART GmbH, Robert-Bosch-Strasse 17, 77656 Offenburg, Germany**			
Heat pump make, type:	HOBART	HP-	FHP-
Year of build:	Serial no.:		
Refrigerant: R134a / R513A			
Fill quantity of tank heating circuit:		kg	
Fill quantity of the rinsing water circuit:		kg	
Leak tightness test carried out in the manufacturer's works:		Date:	Tester:

Information for the operator:	
Name:	
Address:	
Installation location:	Phone:

Leak tightness tests and results of all regular routine tests, if necessary prolonged downtimes, final shutdown/ scrapping:

Test date	Faults determined	Checked			Next test
		Company	Name	Signature	

NOTE: This document must be retained for at least five years after the last entry and submitted to the competent authority on request.
A follow-up test is required within one month for repairs according to EC Regulation 517/2014 Item 3 paragraph 3.

Determined faults and rectification				
Test date	Faults determined	Qualified person	Fault rectification, components modified or replaced as required	* Refrigerant R134a / R513A replenished, recovered, drained (kg)
* Detailed information on the replenished refrigerant, as required: Type of refrigerant (new, re-used, recycled). analysis of the re-used refrigerant as required; origin of the re-used refrigerant as required				

Specific coolant loss/leakage rate		
Year	Refrigerant (kg/year)	Specific coolant loss (%)

NOTE: This document must be retained for at least five years after the last entry and submitted to the competent authority on request.

11 Disposal

The machine operator is responsible for disposing of the machine and its operating materials correctly and in accordance with environmental regulations. Both national and local legal provisions and regulations must be observed!

With respect to fluorine-containing coolants in machines with heat pumps, the requirements of Regulation (EC) No. 517/2014 and supplementary national legislation must be observed in Europe.

We recommend assigning a specialist company for disposal. Alternatively, Hobart can take back the machine and its operating materials.

12 Product disclaimer

Product disclaimer

Installations and repairs carried out by non-authorized technicians or using non-genuine spare parts, and any technical alterations to the machine not approved by the manufacturer will invalidate the manufacturer's warranty and product liability.

HOBART reserves the right to make changes or improvements to its products without prior notice.

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13 Conformity

Original

EG-Konformitätserklärung

Declaration of Conformity / Déclaration de Conformité / Declaración de Conformidad / Dichiarazione di conformitá / Conformiteitsverklaring / Deklaracja zgodności / Декларация соответствия / Uygunluk beyanı / Deklarcija o sukladnosti / Izjava o skladnosti / Declaração de Conformidade / Prohlášení o shodě

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Maschine: Machine: Machine: Máquina: Macchina: Machine: Urządzenie: Машина: Makine: Stroj: Stroj: Máquina: Stroj:	**Band - Geschirrspülmaschine** *Conveyor - Dishwasher* *Machines à laver la vaisselle à convoyeur* *Lavavajillas de cinta* *Lavastoviglie a nastro* *Transportband vaatwasmachine* *Zmywarka taśmowa do naczyń* *Туннельная посудомоечная машина* *Rafl i ve transport sistemli bulaşık makineleri* *Tračna perilica posuđa* *Trak - stroj za pomivanje posode* *Máquina lava-loiça de tapete* *Část - Myčka na nádobí*
Marke: Trade mark / Marque / Marca comercial / Marchio / Merk / Marka / Марка / Marka / Zaštitni znak / Znamka / Marca / Značka	**HOBART**

Type: **FTNi-Serie** **FTPi-Serie** **Design State: FTN-14-02** **Serial No.: 86 77 XXXXX**

Hiermit bestätigen wir, dass die genannte Maschine entsprechend den nachfolgend aufgeführten Normen gefertigt und geprüft worden ist.
Herewith our confirmation that the named machine has been manufactured and tested in accordance with the following standards.
Par la présente, nous déclarons que la machine citée ci-dessus a été fabriquée et testée en conformité aux normes.
Por la siguiente confirmamos que la máquina mencionada ha sido fabricada conforme a las siguientes normas.
Con la presente confermiamo che la macchina indicata è stata costruita in conformità alle norme di seguito riportate.
Hierbij bevestigen wij dat de genoemde machine is gefabriceerd en getest volgens de hiervolgende voorwaarden.
Niniejszym deklarujemy, że wymieniony produkt spełnia wymogi następujących norm.
Настоящим мы подтверждаем, что указанная машина изготовлена в соответствии с приведенными ниже нормами.
İşbu belge ile belirtilen makinenin aşağıda listelenen normlar doğrultusunda hazırlandığını beyan ederiz.
Ovime potvrđujemo da je gore navedeni stroj proizveden i testiran sukladno sljedećim standardima.
S tem izjavljamo, da je naveden stroj izdelan in preizkušen v skladu s spodaj navedenimi standardi.
Com a presente declaramos que a máquina supracitada foi construída e inspecionada segundo as normas referidas a seguir.
Tímto potvrzujeme, že uvedený stroj byl vyroben a zkontrolován podle následujících norem.

DIN SPEC 10534:2019-02
EN 50416:2005 + A1:2015
EN 60204-1:2006
EN 61000-6-2:2005
EN 61000-6-4:2007 + A1:2011
EN ISO 12100:2010

Die Maschine stimmt mit den folgenden Richtlinien überein:
The product complies with the following directives:
La machine est conforme aux directives fixées:
La máquina armoniza con las siguientes Directivas:
La macchina è conforme alle direttive seguenti:
Het product voldoet aan de volgende richtlijnen:
Urządzenie spełnia wymogi następujących dyrektyw:
Машина соответствует требованиям следующих директив:
Makine, aşağıdaki yönetmelikler ile uyumludur:
Ovaj stroj je u skladu sa sljedećim direktivama:
Stroj ustreza zahtevam sledečih direktiv:
A máquina está em conformidade com as seguintes diretivas:
Stroj je v souladu s ustanoveními následujících směrnic:

2006/42/EC	(Maschinenrichtlinie, Machinery-Directive)
2014/30/EU	(EMV-Richtlinie, EMC-Directive)
2011/65/EU	(RoHS Richtlinie, RoHS Directive)

Die Schutzziele der Niederspannungsrichtlinie 2014/35/EU wurden gemäß Anhang I Nr. 1.5.1 der Maschinenrichtlinie 2006/42/EC eingehalten.
Protective Goals of the Low Voltage Directive 2014/35/EU are in compliance with Appendix I No 1.5.1 of the Machinery Directive 2006/42/EC.
Les objectifs de protection de la directive sur les basses tensions 2014/35/EU ont été respectés conforme à l'annexe I Nr. 1.5.1 der de la directive relative aux machines 2006/42/EC.
Directiva de protecciones de baja tension 2014/35/EU estan en acuerdo con el apendice I No 1.5.1. de la directiva de maquinaria 2006/42/EC.
Gli obiettivi di protezione della direttiva per basse tensioni 2014/35/EU è stata rispettata secondo allegato I n. 1.5.1 della Direttiva per macchine 2006/42/EC.
De veiligheidsdoelstellingen van de laagspanningsrichtlijn 2014/35/EU zijn nageleefd in overeenstemming met nr. 1.5.1 van bijlage I van de machine richtlijn 2006/42/EC.
Produkt spełnia wymogi bezpieczeństwa dyrektywy niskonapięciowej 2014/35/EU, zgodnie z załącznikiem I nr. 1.5.1 dyrektywy maszynowej 2006/42/EC.
Цели, охраняемые Директивой по высоковольтному оборудованию 2014/35/EU, соблюдены в соответствии с приложением № 1.5.1 Директивы по машинному оборудованию 2006/42/EC.
Alçak Gerilim Yönetmeliği 2014/35/EU'nin koruyucu hedeflerine, Makine Yönetmeliği 2006/42/EC, ek I no. 1.5.1'e göre uyulmuştur.
Sigurnosni ciljevi direktive o niskom naponu 2014/35/EU udovoljavaju dodatku i br. 1.5.1. Direktive o strojevima 2006/42/EC
Upoštevani so zaščitni cilji Direktive o nizki napetosti 2014/35/EU v skladu s prilogo I, št. 1.5.1 Direktive o strojih 2006/42/EC.
Os objetivos de proteção da Diretiva de Baixa Tensão 2014/35/EU foram cumpridos de acordo com o Apêndice I, n.º 1.5.1 da Diretiva de Máquinas 2006/42/EC.
Cíle ochrany dle nízkonapěťové směrnice 2014/95/ES byly splněny dle přílohy I č. 1.5.1 směrnice o strojních zařízeních 2006/42/ES.

Bestätigt durch:
Confirmed by:

Offenburg, 22.07.2019 ppa. Harald Disch

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Conformity

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