

# Rack Type dishwasher

ESR20EL5-ESR20ER5-ESR20EL6-  
ESR20ER6-ESR20EL3-ESR20ER3-  
ESR20EL5TL-ESR20ER5TL

Single-Rinse



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## Foreword



The installation, use and maintenance manual (hereinafter Manual) provides the user with information necessary for correct and safe use of the machine (or “appliance”).

The following must not be considered a long and exacting list of warnings, but rather a set of instructions suitable for improving machine performance in every respect and, above all, preventing injury to persons and animals and damage to property due to improper operating procedures.

All persons involved in machine transport, installation, commissioning, use and maintenance, repair and disassembly must consult and carefully read this manual before carrying out the various operations, in order to avoid wrong and improper actions that could compromise the machine's integrity or endanger people. Make sure to periodically inform the user regarding the safety regulations. It is also important to instruct and update personnel authorised to operate on the machine, regarding its use and maintenance.

The manual must be available to operators and carefully kept in the place where the machine is used, so that it is always at hand for consultation in case of doubts or whenever required.

If, after reading this manual, there are still doubts regarding machine use, do not hesitate to contact the Manufacturer or the authorised Service Centre to receive prompt and precise assistance for better operation and maximum efficiency of the machine. During all stages of machine use, always respect the current regulations on safety, work hygiene and environmental protection. It is the user's responsibility to make sure the machine is started and operated only in optimum conditions of safety for people, animals and property.



### **IMPORTANT**

- The manufacturer declines any liability for operations carried out on the appliance without respecting the instructions given in this manual.
- The manufacturer reserves the right to modify the appliances presented in this publication without notice.
- No part of this manual may be reproduced.
- This manual is available in digital format by:
  - contacting the dealer or reference customer care;
  - downloading the latest and up to date manual on the web site;
- The manual must always be kept in an easily accessed place near the machine. Machine operators and maintenance personnel must be able to easily find and consult it at any time.

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## A SAFETY INFORMATION

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### A.1 General information

To ensure safe use of the machine and a proper understanding of the manual it is necessary to be familiar with the terms and typographical conventions used in the documentation. The following symbols are used in the manual to indicate and identify the various types of hazards:



#### **WARNING**

Danger for the health and safety of operators.



#### **WARNING**

Danger of electrocution - dangerous voltage.



#### **CAUTION**

Risk of damage to the machine or the product.



#### **IMPORTANT**

Important instructions or information on the product



Equipotentiality



Read the instructions before using the appliance



Clarifications and explanations






### A.2 General safety

- The appliance must not be used by people (including children) with limited physical, sensory or mental abilities or without experience and knowledge of it, unless instructed in its use and supervised by those responsible for their safety.
  - Do not let children play with the appliance.
  - Keep all packaging and detergents away from children.
  - Cleaning and user maintenance shall not be made by children without supervision.
- For suitable personal protection equipment, refer to chapter “A.3 *Personal protection equipment*”.
- Several illustrations in the manual show the machine, or parts of it, without guards or with guards removed. This is purely for explanatory purposes. Do not install the machine without the guards or with the protection devices deactivated.
- Do not remove, tamper with or make illegible the safety, danger and instruction signs and labels on the machine.
- Do not remove, tamper with or make the labels on the machine illegible.
- Do not remove or tamper with the machine’s safety devices.
- Unauthorized personnel must not enter the work area.
- Remove any flammable products or items from the work area.



### A.3 Personal protection equipment

Summary table of the Personal Protection Equipment (PPE) to be used during the various stages of the machine's service life.

Stage	Protective garments 	Safety footwear 	Gloves 	Glasses 	Safety helmet 
Transport	—	●	○	—	○
Handling	● —	●	○ ●	—	—
Unpacking	○ —	●	○ ●	—	—
Installation	○ —	●	● <sup>1</sup>	— ●	—
Normal use	● — ○	● — ○	● <sup>2</sup> 3 4 — ○	— ○	—
Adjustments	○ —	● ○	— ○	— ○	—
Routine cleaning	○ —	● —	● <sup>1-5</sup>	○ —	—
Extraordinary cleaning	○ ●	●	● <sup>1-5</sup>	○ ●	—
Maintenance	○ ●	●	○ ●	— ○ ●	—
Dismantling	○ ●	●	○ ●	○ ● —	—
Scrapping	○ ●	●	○ ●	○ ● —	—
<b>Key:</b>					
●	<b>PPE REQUIRED</b>				
○	<b>PPE AVAILABLE OR TO BE USED IF NECESSARY</b>				
—	<b>PPE NOT REQUIRED</b>				

1. During these operations, gloves must be cut-resistant. Failure to use the personal protection equipment by operators, specialized personnel or users can involve exposure to damage to health (depending on the model).

**Summary table of the Personal Protection Equipment (PPE) to be used during the various stages of the machine's service life. (cont'd.)**

2. During these operations, gloves must protect hands from the cold tray when being removed from the appliance. Failure to use the personal protection equipment by operators, specialised personnel or users can involve exposure to chemical risk and cause possible damage to health (depending on the model).
3. During these operations, gloves must be heatproof to protect hands from contact with hot food or hot parts of the appliance and/or when removing hot items from it. Failure to use the personal protection equipment by operators, specialised personnel or users can involve exposure to chemical risk and cause possible damage to health (depending on the model).
4. During these operations, gloves must be heatproof and suitable for contact with water and the substances used (refer to the safety data sheet of the substances used for the information regarding the required PPE). Failure to use the personal protection equipment by operators, specialised personnel or users can involve exposure to chemical risk and cause possible damage to health (depending on the model).
5. During these operations, gloves must be suitable for contact with chemical substances used (refer to the safety data sheet of the substances used for information regarding the required PPE). Failure to use the personal protection equipment by operators, specialized personnel or users can involve exposure to chemical risk and cause possible damage to health (depending on the model).

#### **A.4 Water connection**

- The operating water pressure (minimum and maximum) must be between:
  - 100 kPa [1 bar] and 600 kPa [6 bar];
- Make sure that there are no visible water leaks during and after the first use of the machine.

#### **A.5 Electrical connection**

- Work on the electrical systems must only be carried out by a specialised personnel.
- If the power cable is damaged it must be replaced by the Customer Care Service or in any case by specialised personnel, in order to prevent any risk.

#### **A.6 Machine cleaning and maintenance**

- Refer to “A.3 *Personal protection equipment*” for suitable personal protection equipment.
- Put the machine in safe conditions before starting any maintenance operation. Disconnect the machine from the power supply and carefully unplug the power supply cable, if present.
- Depending on the model and type of electric connection, during maintenance operations, the cable and plug must be kept in a visible position by the operator carrying out the work.
- Do not touch the machine with wet hands or feet or when barefoot.
- Do not remove the safety guards.
- Use a ladder with suitable protection for work on machines with high accessibility.
- Respect the requirements for the various routine and extraordinary maintenance operations. Non compliance with the instructions can create risks for personnel.
- Extraordinary maintenance, checking and overhaul operations must only be carried out by a specialised personnel or the Customer Care Service, provided with suitable personal protection equipment (safety shoes and gloves), tools and ancillary means.

#### **Ordinary maintenance**

- Do not clean the machine with jets of water.
- Contact with chemical substances (e.g. detergent, rinse aid, scale remover, etc.) without taking appropriate safety precautions (e.g. personal protection equipment) can involve exposure to chemical risk and possible damage to health. Therefore always refer to the safety cards and labels on the products used.

## Repair and extraordinary maintenance

- Repair and extraordinary maintenance have to be carried out by specialised authorised personnel. The manufacturer declines any liability for any failure or damage caused by the intervention of an unauthorized technician by the Manufacturer and the original manufacturer warranty will be invalidated.

### A.7 Machine disposal

- Work on the electrical equipment must only be carried out by a specialised personnel, with the power supply disconnected.
- Dismantling operations must be carried out by specialised personnel.
- Make the appliance unusable by removing the power cable and any compartment closing devices, to prevent the possibility of someone becoming trapped inside.
- Refer to “A.3 Personal protection equipment” for suitable personal protection equipment.
- When scrapping the machine, the “CE” marking, this manual and other documents concerning the appliance must be destroyed.



### IMPORTANT

Save these instructions carefully for further consultation by the various operators.

## B GENERAL SAFETY RULES

### B.1 Introduction

The machines are provided with electric and/or mechanical safety devices for protecting workers and the machine itself.

Therefore the user must not remove or tamper with such devices. The Manufacturer declines any liability for damage due to tampering or their non-use.

### B.2 Mechanical safety characteristics, hazards

The machine does not have sharp edges or protruding parts. The guards for the moving and live parts are fixed to the cabinet with screws, to prevent accidental access.

### B.3 Guards

The guards on the machine are:

- fixed guards (e.g. casings, covers, side panels, etc.), fixed to the machine and/or frame with screws or quick-release connectors that can only be removed or opened with tools;
- interlocked movable guards (door) for access inside the machine;
- machine electrical equipment access top panel, made from a panel openable with tools. The panel must not be opened when the machine is connected to the power supply.



### IMPORTANT

Several illustrations in the manual show the machine, or parts of it, without guards or with guards removed. This is purely for explanatory purposes. Do not use the machine without the guards or with the protection devices deactivated.

### B.4 Emergency switch

The emergency switches installed do not exempt operators from diligent and careful use of the machine.

The function of these devices guarantees prompt intervention in case of emergency.

- Operators must know the position of the emergency switches installed on the machine.
- The paths to reach and operate them must be kept free of obstacles.
- Anyone detecting a danger for persons must immediately operate one of the emergency stops. The same applies in

case of operation anomalies and/or damage to parts of the machine requiring it to be stopped immediately.

### B.4.1 Emergency switch reinstatement

When an emergency switch is operated, restart the machine only after making sure that:




- the cause requiring operation of the emergency switch has been eliminated;
- restarting machine operation does not involve any hazard.




If the EMERGENCY SWITCH is operated during the use of the machine, the entire machine is deactivated.

To reinstate machine operation, proceed as follows:

- release the previously operated red emergency button, turning or pulling it in order to disconnect its interlock;
- restart the machine according to what is described in paragraph “H.3 Starting”.

### B.5 Safety signs to be placed on the machine or near its area

Prohibition	Meaning
	do not oil, lubricate, repair and adjust moving parts
	do not remove the safety devices
	do not use water to extinguish fires (placed on electrical parts)

Danger	Meaning
	danger of crushing hands
	caution, hot surface
	danger of electrocution (shown on electrical parts with indication of voltage)

### B.6 Instructions for use and maintenance

Risks mainly of a mechanical, thermal and electrical nature exist in the machine. Where possible the risks have been neutralised:

- directly, by means of adequate design solutions.
- indirectly by using guards, protection and safety devices.

Any anomalous situations are signalled on the control panel display.

During maintenance several risks remain, as these could not be eliminated, and must be neutralised by adopting specific measures and precautions.

Do not carry out any checking, cleaning, repair or maintenance operations on moving parts. Workers must be informed of this prohibition by means of clearly visible signs.

To guarantee machine efficiency and correct operation, periodical maintenance must be carried out according to the instructions given in this manual.

Make sure to periodically check correct operation of all the safety devices and the insulation of electrical cables, which must be replaced if damaged.

### B.7 Reasonably foreseeable improper use

Improper use is any use different from that specified in this manual. During machine operation, other types of work or activities deemed improper and that in general can involve risks for the safety of operators and damage to the appliance are not allowed. Reasonably foreseeable improper use includes:

- lack of machine maintenance, cleaning and periodical checks;
- structural changes or modifications to the operating logic;
- tampering with the guards or safety devices;
- failure to use personal protection equipment by operators, specialised personnel and maintenance personnel;
- failure to use suitable accessories (e.g. use of unsuitable equipment or ladders);
- keeping combustible or flammable materials, or in any case materials not compatible with or pertinent to the work, near the machine;
- wrong machine installation;
- placing in the machine any objects or things not compatible with its use, or that can damage the machine, cause injury or pollute the environment;
- climbing on the machine;
- non-compliance with the requirements for correct machine use;
- other actions that give rise to risks not eliminable by the Manufacturer.



## WARNING

The previously described actions are prohibited!

### B.8 End of use

When the appliance is no longer to be used, make it unusable by removing the mains power supply wiring.

### B.9 Residual risks

The machine has several risks that were not completely eliminated from a design standpoint or with the installation of adequate protection devices. Nevertheless, through this manual the Manufacturer has taken steps to inform operators of such risks, carefully indicating the personal protection equipment to be used by them. In order to reduce the risks, provide for sufficient spaces while installing the unit. To preserve these conditions, the areas around the machine must always be:

- kept free of obstacles (e.g. ladders, tools, containers, boxes, etc.);
- clean and dry;
- well lit.

For the Customer's complete information, the residual risks remaining on the machine are indicated below: such situations are deemed improper and therefore strictly forbidden.

Residual risk	Description of hazardous situation
Slipping or falling	The operator can slip due to water or dirt on the floor
Slipping or falling	The operator can slip due to water, beer or dirt on the floor.
Catching, dragging or crushing	Catching or dragging of the operator or other persons in the drive, during the machine work phase, due to improper actions, such as: <ul style="list-style-type: none"> <li>• placing an arm inside the machine to remove a stuck rack without stopping the machine by operating an emergency switch;</li> <li>• accessing the rack handling system without stopping the machine by operating an emergency switch.</li> </ul> Use of improper clothing with loose parts (e.g. necklaces, scarves, shawls, ties, etc.) or long hair not gathered, which could get caught up in moving parts.
Burns/abrasions (e.g. heating elements, cold pan, cooling circuit plates and pipes)	The operator deliberately or unintentionally touches some components inside the machine without using protective gloves.
Stab wounds	The operator deliberately or unintentionally touches some components with sharp edges during the machine cleaning without using protective gloves.
Burns	The operator deliberately or unintentionally touches some components inside the machine or dishes at the outfeed without using gloves or without allowing them to cool.
Shearing of upper limbs	The operator violently closes the front panels.
Electrocution	Contact with live parts during maintenance operations carried out with the electrical panel powered

Residual risk	Description of hazardous situation
Breakage or bursting of cap/cylinder	Accidental knocking of the cap on the cylinder and/or dropping of the cap when changing the keg (possible cracking of the material) Lack of required maintenance as provided for in the relevant sections. Parts subject to wear not checked and/or replaced.
Falling from above	The operator intervenes on the machine using unsuitable systems to access the upper part (e.g. rung ladders, or climbs on it)
Crushing or injury	The specialised personnel may not correctly fix the control panel when accessing the technical compartment. The panel could close suddenly.
Crushing or injury	During lifting of the cylinder, the operator's hand could get squashed between the cylinder and the top of the cabinet. Therefore do not place a hand on the cylinder during this stage.
Crushing or shearing	Possible risk of injury to upper limbs during the hood closing operation.

Residual risk	Description of hazardous situation
Crushing or shearing	Possible risk of injury to upper limbs during the closing operation of the lid on the rear of the appliance.
Tipping of loads	When handling the machine or the packing containing it, using unsuitable lifting systems or accessories or with the unbalanced load
Chemical (refrigerant gas)	Inhalation of refrigerant gas. Therefore always refer to the appliance labels
Chemical	Contact with chemical substances (e.g. detergent, rinse aid, scale remover, etc.) without taking adequate safety precautions. Therefore always refer to the safety cards and labels on the products used.



### IMPORTANT

In case of a significant anomaly (e.g. short circuits, wires coming out of the terminal block, motor breakdowns, worn electrical cable sheathing, etc.) the operator must immediately deactivate the machine.

## C GENERAL INFORMATION

### C.1 Introduction

Given below is some information regarding the intended use of this appliance, its testing, and a description of the symbols used (that identifies the type of warning), the definitions of terms used in the manual and useful information for the appliance user.

### C.2 Definitions

Listed below are the definitions of the main terms used in the manual. It is advisable to read them carefully before use.

Operator	machine installation, adjustment, use, maintenance, cleaning, repair and transport personnel.
Manufacturer	Electrolux Professional China or any other service centre authorised by Electrolux Professional China.
Operator for normal machine use	an operator who has been informed and trained regarding the tasks and hazards involved in normal machine use.
Customer Care service or specialised technician	an operator instructed/trained by the Manufacturer and who, based on his professional and specific training, experience and knowledge of the accident-prevention regulations, is able to appraise the operations to be carried out on the machine and recognise and prevent any risks. His professionalism covers the mechanical, electrotechnical and electronics fields.
Danger	source of possible injury or harm to health.
Hazardous situation	any situation where an operator is exposed to one or more hazards.
Risk	a combination of probabilities and risks of injury or harm to health in a hazardous situation.
Protection devices	safety measures consisting of the use of specific technical means (guards and safety devices) for protecting operators against risks.

Guard	an element of a machine used in a specific way to provide protection by means of a physical barrier.
Safety device	a device (other than a guard) that eliminates or reduces the risk; it can be used alone or in combination with a guard.
Customer	the person who purchased the machine and/or who manages and uses it (e.g. company, entrepreneur, firm).
Emergency stop device	a group of components intended for the emergency stop function; the device is activated with a single action and prevents or reduces damage to persons/machines/property/animals.
Electrocution	an accidental discharge of electric current on a human body.

### C.3 Machine and Manufacturer's identification data

An example of the marking or dataplate on the machine is given below:

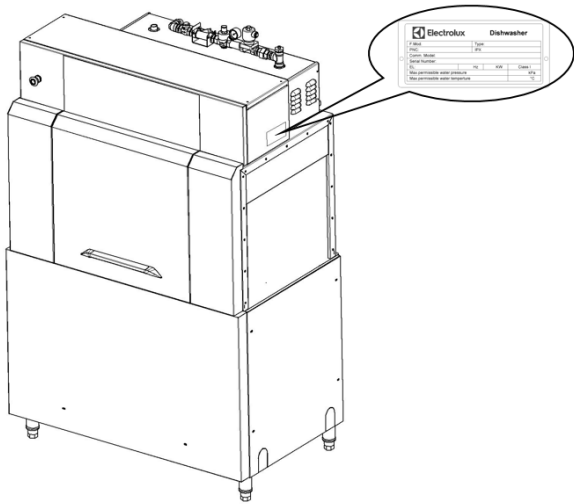
Electrolux PROFESSIONAL		商用洗碗机 Commercial Dishwasher	
工厂型号 F. Model	序列号 Serial No.	执行标准 Executive standard	
商业型号 Comm. Model	认证型号 Type	产品代码 PNC	
额定电压 Rated voltage	额定输入功率 Rated input power	kW	防护等级 IP Code
额定频率 Rated frequency	额定电流 Rated current	A	绝缘等级 Insulation class
伊莱克斯 (上海) 商用机器有限责任公司 Electrolux (Shanghai) Professional Appliance Co., Ltd. 上海市奉贤区南桥镇环城西路2688号 No.2688 West Huancheng Road, Fengxian District, Shanghai, China		中国制造 MADE IN CHINA	CE

The dataplate gives the product identification and technical data; listed below is the meaning of the various information given on it.

F.Mod.	factory description of product
Comm.Model	commercial description
PNC	production number code
Ser.No.	serial number
380-400 3N	power supply voltage

—	electric convertibility
50 or 60	power supply frequency
44.5 kW	max. power
60 C	max water temperature
600 kPa [6 bar]	max water pressure
IPX4	dust and water protection rating
Electrolux (Shanghai) Professional Appliance Co., Ltd.	manufacturer

The dataplate is located in front panel of the equipment.



## WARNING

Do not remove, tamper with or make the machine marking illegible.



## IMPORTANT

When scrapping the machine, the marking must be destroyed.



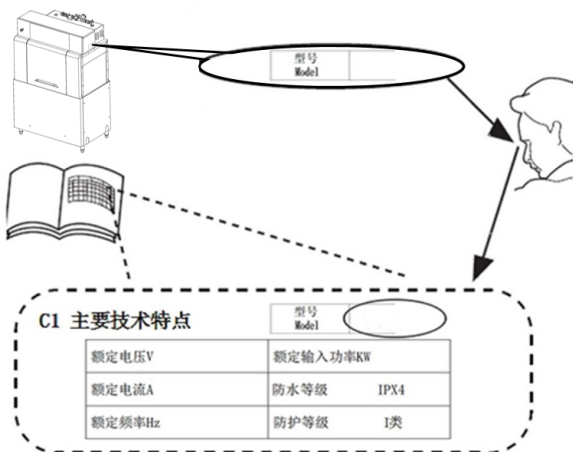
## NOTE!

Refer to the data given on the machine marking for relations with the Manufacturer (e.g. when ordering spare parts, etc.).

## C.4 Appliance identification

### C.4.1 How to identify the technical data

- Read the factory description of the product (F. Mod.) on the dataplate;
- Identify the main machine data;
- Consult F.1 *Main technical characteristics* paragraph.



### C.4.2 How to interpret the factory description

The factory description on the dataplate has the following meaning (some examples are given below):

(1)	(2)	(3)	(4)	(5)	(6)	(7)
E	SR	20	E	L	5	/
E	SR	20	E	R	5	/
E	SR	20	E	L	3	/
E	SR	20	E	R	6	/
E	SR	20	E	L	5	TL
E	SR	20	E	R	5	TL

### Variable description

(1) Brand	E = Electrolux Professional
(2) Machine type	RT = Rack Type Dishwasher
(3)Rack/hour	20 = 200 rackss/hour
(4) Supply	E = electric S = steam
(5) Direction	L = left R = right
(6) Frequency	5 = 50Hz 3 = 220V60Hz 6 = 60Hz
(7) Additional configuration	TL = 71 Thermal Label

## C.5 Responsibility

**The Manufacturer declines any liability for damage and malfunctioning caused by:**

- non-compliance with the instructions contained in this manual;
- repairs not carried out in a workmanlike fashion, and replacements with parts different from those specified in the spare parts catalogue (the fitting and use of non-original spare parts and accessories can negatively affect machine operation and invalidates the original manufacturer warranty);
- operations carried out by non-specialised personnel;
- unauthorized modifications or operations;
- missing, lack or inadequate maintenance;
- improper machine use;
- unforeseeable extraordinary events;
- use of the machine by uninformed and / or untrained personnel;
- non-application of the current provisions in the country of use, concerning safety, hygiene and health in the workplace.

The Manufacturer declines any liability for damage caused by arbitrary modifications and conversions carried out by the user or the Customer.

The employer, workplace manager or service technician are responsible for identifying and choosing adequate and suitable personal protection equipment to be worn by operators, in compliance with regulations in force in the country of use.

The Manufacturer declines any liability for inaccuracies contained in the manual, if due to printing or translation errors.

Any supplements to the installation, use and maintenance manual the Customer receives from the Manufacturer will form an integral part of the manual and therefore must be kept together with it.

## C.6 Copyright

This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of Electrolux (Shanghai) Professional Appliance Co., Ltd..

## C.7 Keeping the manual

The manual must be carefully kept for the entire life of the machine, until scrapping. The manual must stay with the machine in case of transfer, sale, hire, granting of use or leasing.



## C.8 Recipients of the manual

This manual is intended for:

- the employer of machine users and the workplace manager

- operators for normal machine use
- specialised technicians - Customer Care service (see service manual).

## C.9 Warranty terms and exclusions

- Electrolux Professional provides warranty services in line with local regulations and is conditional on the equipment being installed and used for the purposes as designed, and as described within the appropriate equipment documentation.
- Warranty will be applicable where the customer has used only genuine spare parts and has performed maintenance in accordance with Electrolux Professional user and maintenance requirements.
- Electrolux Professional strongly recommends to use Electrolux Professional approved cleaning agents, rinse and descaling agents to obtain better results and maintain product efficiency over time.

The Electrolux Professional warranty does not cover damages and inefficiencies deriving from external causes beyond the manufacturer's responsibilities, such as:

- Insufficient and abnormal capacity of the electrical, hydraulic and gas systems, irregular supply voltage, impurities contained in the gas or water supply that does not comply with the technical requirements for each machine, insufficient extraction systems, customer's negligence and misuse;
- Deterioration caused by action of unsuitable detergents, additives or cleaning means;
- Non-compliance with the use and care instructions detailed in this manual;
- Tampering, modifications and repairs carried out by third parties not entrusted in writing by Electrolux Professional;
- Use of non-original components (e.g.: consumables, wear and tear, or spare parts);
- Modification of safety systems;
- Poor maintenance and misuse;
- Warranty does not include scheduled planned maintenance activities, or the supply of cleaning agents unless specifically covered within any local agreement, subject to local terms and conditions.

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## D NORMAL USE

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### D.1 Correct use

Our machines are designed and optimized in order to obtain high performance and efficiency.

This equipment must only be used for its expressly designed purpose, i. e. washing dishes with water and specific detergents. Any other use is to be deemed improper.

### D.2 Characteristics of personnel enabled to operate on the machine

The Customer is responsible for ensuring that persons assigned to the various duties:

- read and understand the manual;
- receive adequate training and instruction for their duties in order to perform them safely;
- receive specific training for correct machine use.

### D.3 Characteristics of personnel trained for normal machine use

The Customer must make sure the personnel for normal machine use are adequately trained and skilled in their duties, as well as ensuring their own safety and that of other persons.

The Customer must make sure his personnel have understood the instructions received and in particular those regarding work hygiene and safety in use of the machine.

### D.4 Operator qualified for normal machine use

Must have at least:

- knowledge of the technology and specific experience in operating the machine;
- adequate general basic education and technical knowledge for reading and understanding the contents of the manual, including correct interpretation of the drawings, signs and pictograms;
- sufficient technical knowledge for safely performing his duties as specified in the manual;
- knowledge of the regulations on work hygiene and safety.

In case of a significant anomaly (e. g. short circuits, wires coming out of the terminal block, motor breakdowns, worn electrical cable sheathing, etc.) the operator for normal machine use must:

- immediately deactivate the machine.
- immediately deactivate the machine and disconnect all the supplies (electricity, gas, water).
- immediately deactivate the machine by turning the switch disconnecter to "O" or operating the main emergency switch on the equipment;
- close the machine water supply by shutting off the water.

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## E PRODUCT OVERVIEW

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### E.1 General description

The rack-type dishwasher is suitable for washing dishes, glasses, cups, cutlery, trays, containers and receptacles in plastic and/or steel used for preparing, cooking and serving; as well as various cooking utensils in ceramic and/ or metal. This machine is designed for the above-mentioned applications.

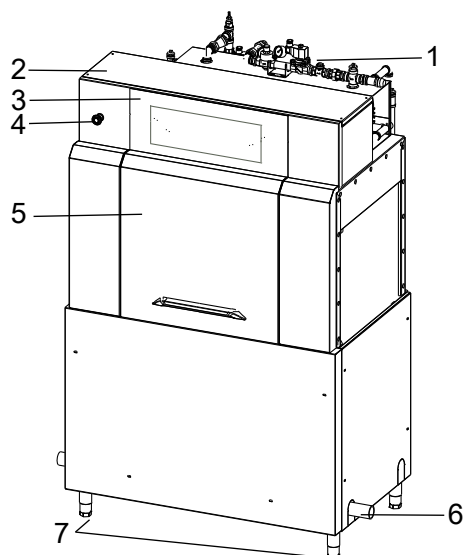
Under no circumstances may the machine be used for other applications or ways not provided for in this manual. This machine has been produced to meet the needs for a better work environment and economical efficiency. The rack-type dishwasher is used in restaurants, cafeterias, cooking centres and large institutions. The special dish racks, that can be equipped with various inserts, offer practical and easy use for

obtaining excellent washing results. Rack handling inside the machine occurs automatically.

The electronic system enables complete supervision of the washing process.

In this type of machine the rack is taken from the loading point to the unloading point, through the various washing functions. Systems for scraping and wetting the dishes (e. g. manual prewash spray) and areas for sorting and arranging them in the racks must be arranged ahead of the dishwasher.

## E.2 Machine overview



1	Water inlet
2	Electric box
3	Control panel
4	Emergency switch
5	Door
6	Drain
7	Feet

## E.3 Description of machine features

### Control Box

The control box is located at the top of the machine. There are three control switches inside: power switch, wash switch and manual switch. The emergency stop is on the side. The transformer in the box is used to control power with voltage 110V. There is a mechanical thermometer in the power box, which shows wash and rinse temperature. Normally, temperature of water in wash tank is 60-65°C, rinse temperature 82-90°C.

### Wash Pump and Conveyor Motor

Manual reset overheated protections are equipped for the conveyor motor and the stainless steel centrifugal type wash pump.

### Tank Heater Protection

A ball float pressure switch is located in the wash tank. The power supply will be automatically off under low water level. Once the water returns to a safe level, the heater will be activated when needed. An overheated protector is also provided for electric heater. If overheat should occur, the power supply will be turned off automatically. Turn the POWER switch OFF when overheating happened and contact the local authorized service office.

### Booster Heater Protection

The booster water temperature is regulated by the thermostat to keep the rinse water temperature on 82-90°C. The thermostat is preset at the factory and no adjustment should be required. When rinse temperature is not sufficient, please turn off the power and contact the local authorized service office.

### Booster main power circuit protection

To ensure normal operation of booster heater, a circuit breaker is set in the control box. When overheating or short circuit happens in main circuit, the circuit breaker will automatically trip off the power.

### Door Interlocks

Door interlock switches will prevent machine operation while an inspection door is open. If a door is open while the machine is operating, the pumps and conveyor will automatically stop working. After the door is closed, the machine must be restarted by pushing the WASH switch to ON.

### Auto Fill

Close door (s) and push the POWER switch to ON. The machine fills automatically after 5 seconds. Water is heated in booster, and then flows into wash tank. After the tank is filled, the solenoid valve is closed automatically.

### Auto Timer

The Auto Timer is designed to save energy. The machine will shut off wash pump, conveyor motors and other auxiliary control system after the last rack exits the dishwasher. To restart, slide a rack into the machine or push WASH switch to ON to change time setting, please contact the local authorized service office.

### Wash Actuator and Rinse Actuator

Wash actuator, which is located at the entrance of the machine, works only when the timer is on AUTO. When the rack enters into the machine, wash begins. The rinse actuator is located at the exit of the machine. When the rack enters rinse section from the wash tank, the rinse actuator activates, the final rinse begins.

### Wash and Rinse Arms

Wash and rinse arms are removable, convenient for cleaning and obstructions clearing.

## F TECHNICAL DATA

### F.1 Main technical characteristics

#### Electrical models

Model		ESR20xxx	ESR20xxx3	NMDSREx (Optional Accessory )
Three phases voltage	V	380-400 3N~	220 3~	380-400 3N~
Convertible to	V	—	—	—
Frequency	Hz	50 or 60 <sup>1</sup>	60	50 or 60 <sup>1</sup>
Maximum absorbed power	KW	45.8	27.8*/50.3	4.3
Boiler heating power	KW	36	18*/36	/
Water tank heating power	KW	7.5	7.5*/12	/
Dryer heating power	KW	/	/	4.3
Inlet water pressure	Kpa [bar]	100 kPa [1 bar] 600 kPa [6 bar]	100 kPa [1 bar] 600 kPa [6 bar]	/



## Electrical models (cont'd.)

Model		ESR20xxx	ESR20xxxTL	NMDSREx (Optional Accessory )
Inlet water hardness	°fH [°dH]	14 [8]	14 [8]	/
Concentration of chlorides in water	ppm	<20	<20	<20
Inlet water conductivity	mS/cm	<400	<400	<400
Water supply temperature	°C	10-60 <sup>3</sup>	50-60*/10-60 <sup>3</sup>	/
Cold water supply temperature	°C	10-60 <sup>2</sup>	50-60*/10-60 <sup>3</sup>	10-60 <sup>2</sup>
Hot water supply temperature	°C	10-60 <sup>3</sup>	50-60*/10-60 <sup>3</sup>	10-60 <sup>3</sup>
Rinse water consumption	l/h	300	300	/
Boiler capacity	l	23	23	23
Tank capacity	l	90	90	/
Noise level	dB(A)	<70	<70	<70
Protection level		IPX4	IPX4	IPX4

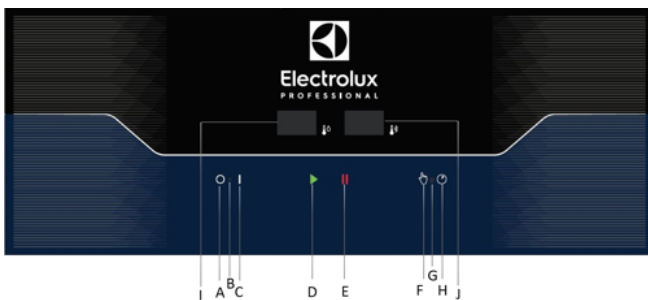
1. Appliances with 50 Hz or 60 Hz power frequency can be selected.
2. Recommended cold water supply temperature 10°C
3. Recommended hot water supply temperature 50°C.  
\* Means low power model

Main ON/OFF switch (residual current circuit breaker)					
Max power [KW]		45.8	50.3	50.1	54.6
C	380V	90	100	100	108

Power supply cable					
Max power [KW]		45.8	50.3	50.1	54.6
S	YJV3*35+2*16 YJV3*35+2*10	YJV3*35+2*16 YJV3*35+2*10	YJV3*35+2*16 YJV3*35+2*10	YJV3*35+2*16 YJV3*35+2*10	YJV3*35+2*16 YJV3*35+2*10

## G CONTROL PANEL DESCRIPTION

### G.1 Control panel description









<b>A</b>	OFF button
<b>B</b>	POWER light
<b>C</b>	ON button
<b>D</b>	START button
<b>E</b>	PAUSE button
<b>F</b>	MANUAL button
<b>G</b>	AUTOMATIC light
<b>H</b>	AUTOMATIC button
<b>I</b>	Wash temperature display of tank
<b>J</b>	Wash temperature display of boiler

### G.2 Basic Controls

Some functions are common to all models of the range, whereas others are available only on some versions.

	ON button and POWER indicator light	Select On Key to switch Dishwasher on When the machine is on, the led is green lighted
	OFF button	Press the OFF button to switch the appliance off.

	START button	Press this button to start the washing cycle.
	PAUSE button	Press this button to stop the washing cycle.
	MANUAL button	Select manual to send the basket with hand(the speed depends on the operator )
	AUTOMATIC button	Select automatic to send the basket with the same speed
	Wash tank temperature display	Display the working temperature of the wash tank
	Boiler temperature display	Display the working temperature of the boiler

## H NORMAL MACHINE USE

### H.1 Fitting of filters and overflows

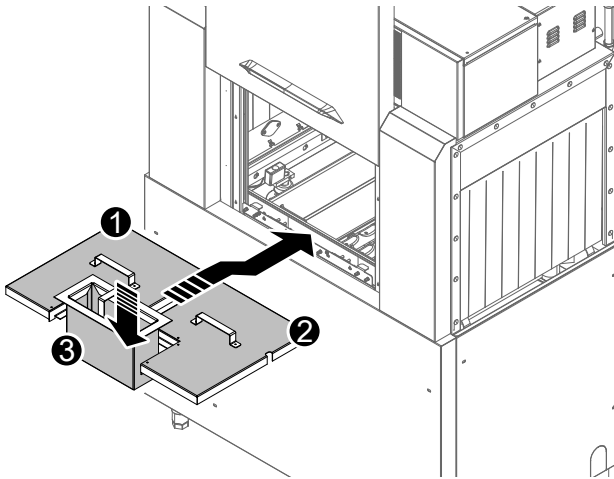


#### CAUTION

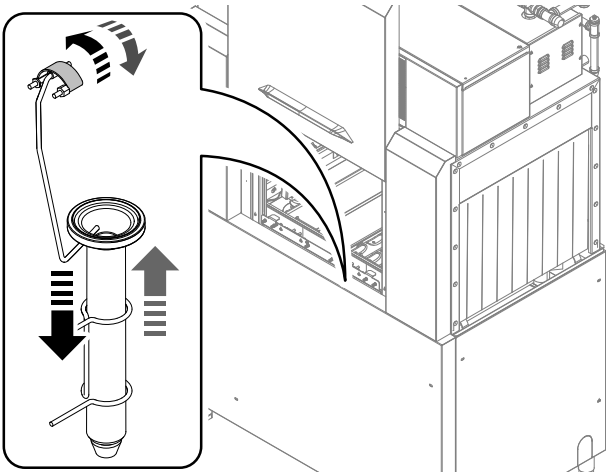
The below operations must be performed when the machine is cold and switched off.

Make sure that:

1. the filter is correctly installed;



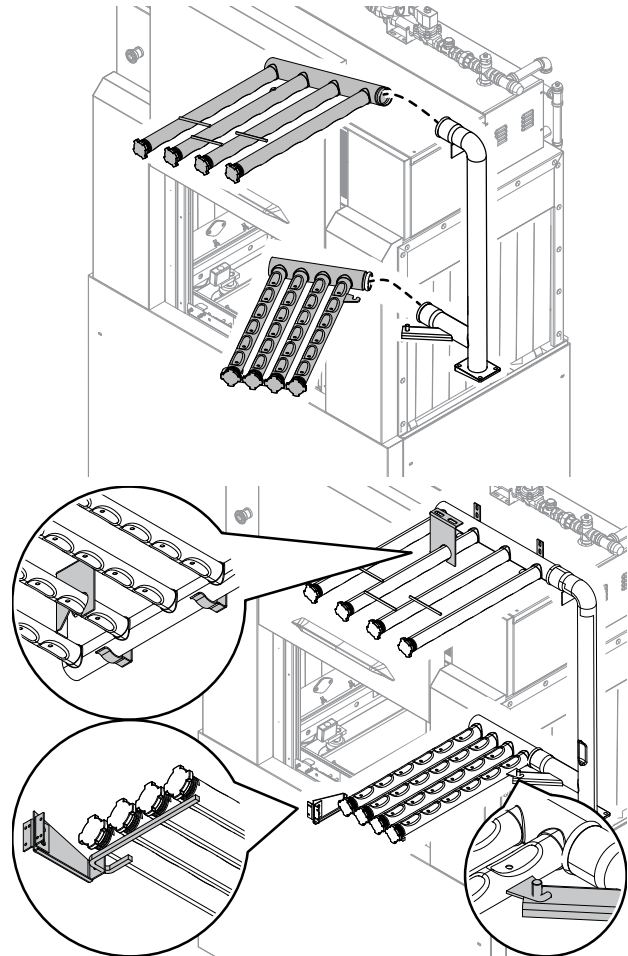
2. the overflows are correctly installed;



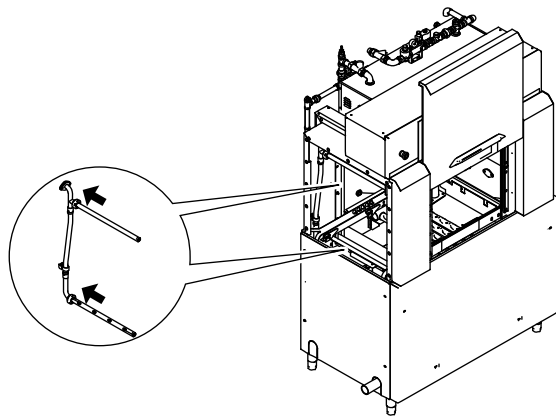
### H.2 Fitting of wash and rinse arms

Make sure that:

1. the upper and lower washing arm are correctly installed;

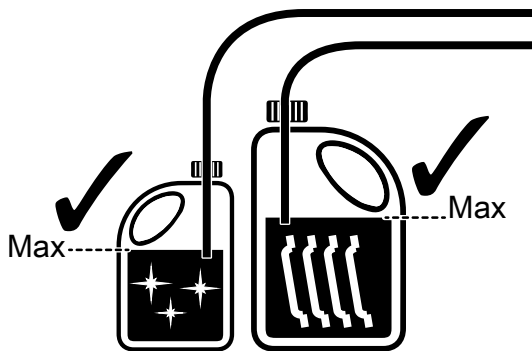


2. the rinsing arm is correctly installed.



### H.3 Starting

- Make sure all the types of curtains, provided for the machine model, are correctly fitted.
- Close the doors of the various machine modules.
- Check the detergent or rinse aid containers. Refill or replace them with new ones in order to always obtain the good washing results.



**NOTE!**  
To obtain excellence washing performance, use detergent, rinse aid and descaling agent suggested by Electrolux Professional. In the Electrolux Professional web site, open the "Accessories and Consumables" web page and navigate into the dishwashing equipment tab to order most suitable detergents and accessories.

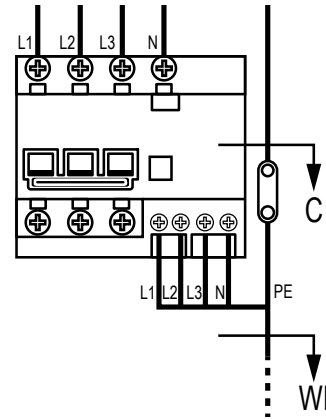


**CAUTION**  
The use of "foaming/nonspecific" detergents or in any case detergents used in different ways from that prescribed by the manufacturer, can cause damage to the dishwasher and compromise the washing results.

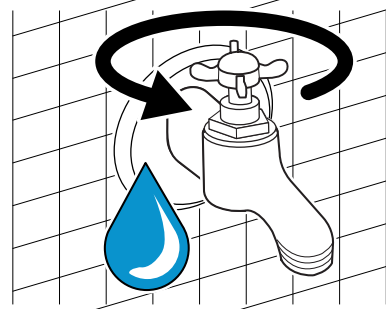


**WARNING**  
When using chemicals, comply with the safety notes and dosage recommendations printed on the packaging. Refer to the chapter *A.3 Personal protection equipment* for handling chemical products.

- Activate the main ON/OFF switch.




- Open the water supply tap.




- Make sure the filters, arms and the overflows are correctly fitted in their position.
- Press the ON button to switch the dishwasher on.



- The red indicator light of the pause button  blinks alternately every second during the filling and heating phases.

When the dishwasher is ready to work the green indicator

light of the start button  flashes 2 times and for 2 second is off and the displays of the wash tank and boiler show the working temperature.



Tank temperature



Boiler temperature

- To shut down the dishwasher, press the OFF button.



### H.4 Operation

Before start the dishwasher, must connect the power supply. And switch on the inlet valve.

The dishwasher is ready when you have checked all the above actions.

#### H.4.1 Loading dishes on rack

This dishwasher can be used to clean cups, dishes, knives and forks in the basket. The tableware needs to be pre-washed before loading into the machine. And should be neatly arranged in the basket.



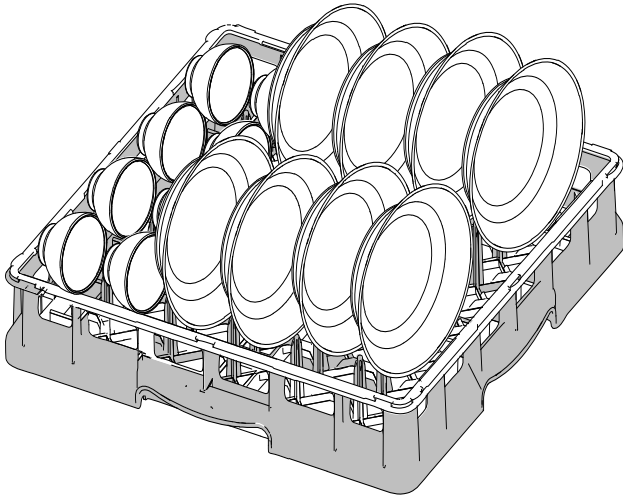
#### IMPORTANT

Every basket should not exceed 12kg, otherwise the use of transmission assembly will be affected

**CAUTION**

Failure to receive the basket in time will cause the transmission mechanism to stop, press ON after the solution, and restart

- the dishes and bowls are arranged in basket



- The interval between baskets should not be too short. The washing arms of the machine with several angled water jets are not able to perfectly clean the dishes.
- Make sure that large dishes can be transported through smoothly before washing them. If it can not easily pass through the machine, please don't try again.
- Remove the basket from the table and put it into shelf in time.
- One operator puts the basket neatly in machine, and presses the START button.

The machine starts washing, and the basket exits in the end after a washing cycle.

- Second operator remove the cleaned tableware in basket. If the tableware activates the end limit switch the dishwasher stops immediately. Press ON after the solution, and restart.

**WARNING**

Danger of crushing. Keep hands and arms away from the entry zone.

**H.4.2 Change the running mode**

1. Press MANUAL button to use manual mode. Manual mode is more efficient and fast to clean the tableware.



2. Press AUTOMATIC button to use automatic mode. Automatic mode is more green, it can save energy.

**H.4.3 Start/stop washing cycle**

Make sure that all doors of the dishwasher are closed.

Press the ON button on the control panel. Then press the START button. The machine start working.

Press the PAUSE button on the control panel. Then press the OFF button on the control panel.

If any emergency happened, press the EMERGENCY STOP button, the dishwasher will be stopped immediately.

**I DAILY CLEANING AND MAINTENANCE****WARNING**

Refer to "Safety Information".

**I.1 Machine cleaning**

Cleaning must be carried out after every day of use. Use hot water, a neutral detergent/cleaner if necessary, and a soft brush or sponge. If another type of detergent is used, carefully follow the producer's instructions and observe the safety rules given in the information sheets provided with the product or substance.

In order to reduce the environmental impact of pollutants it is advisable to clean the machine (externally and, where necessary, internally) with products that are more than 90% biodegradable.

**CAUTION**

Do not use steel wool or similar material to clean stainless steel surfaces. Do not use detergents containing chlorine.

**WARNING**

When using chemicals, comply with the safety notes and dosage recommendations printed on the packaging. Refer to the chapter *A.3 Personal protection equipment* for handling chemical products.

**I.2 Daily internal cleaning****IMPORTANT**

It is recommended to clean the dishwasher after each operation or at least daily.

**CAUTION**

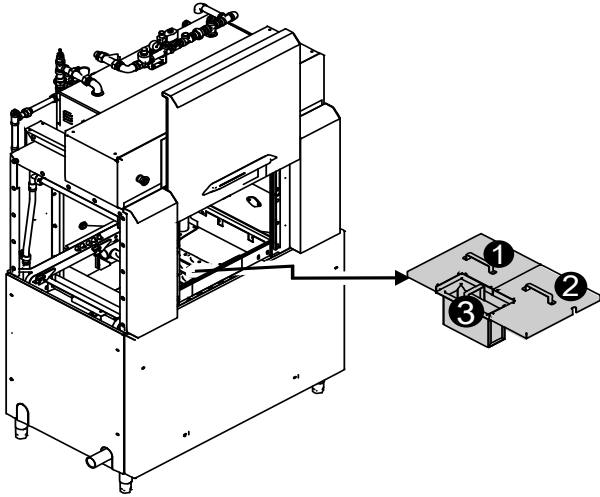
Do not use steel wool or similar material to clean stainless steel surfaces. Do not use detergents containing chlorine

**NOTE!**

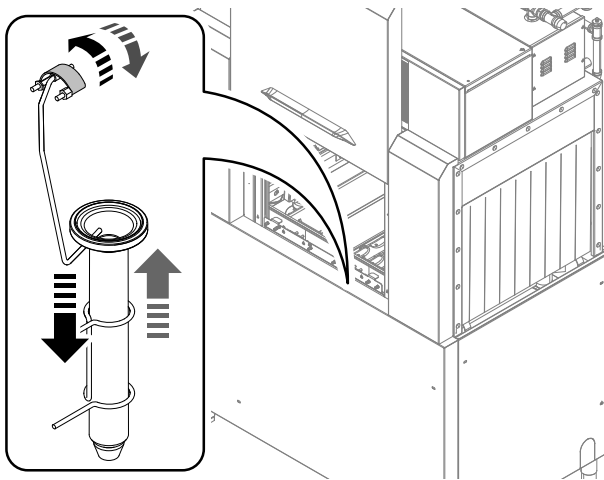
For better result use a brush with a plastic bristles and a sponge.

1. Switch the dishwasher off and deactivate the main circuit breaker. Open all doors of the dishwasher.

- Remove the strainer baskets, flat filters of the tank and clean them with water.  
Do not use hard objects to clean them.

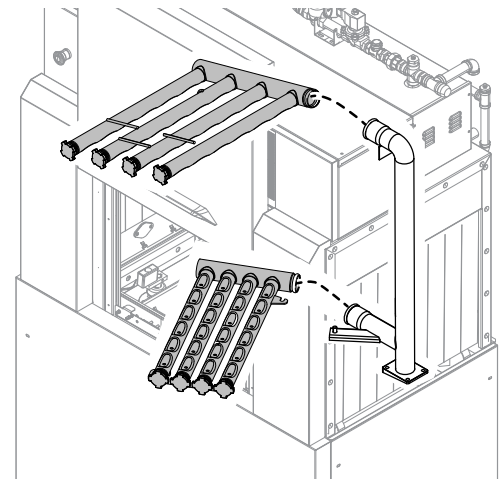
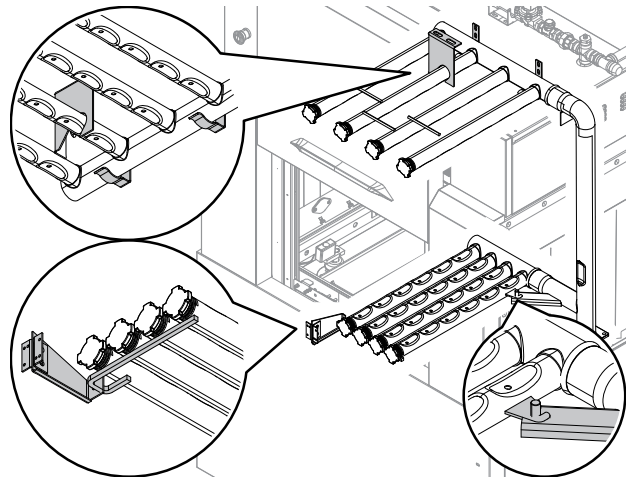


- Pull up the overflows of wash tank to drain the water.

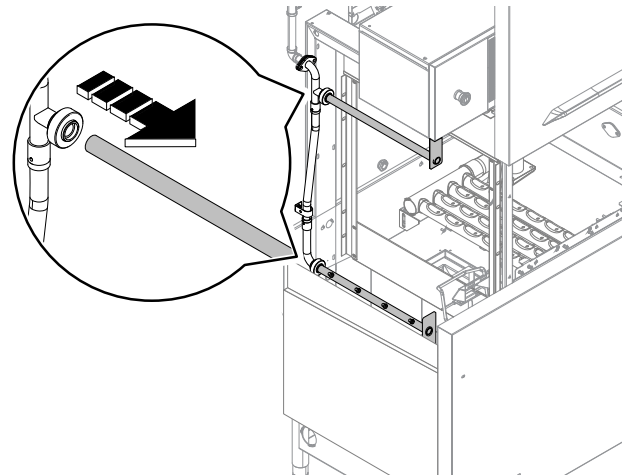


- Remove the curtains and clean them.
- Spray water to wash out debris on inlet and outlet tables into the machine, thoroughly clean the interior of the appliance;
- When the tank is empty, remove and clean the pump filter.

- Clean the washing arms:
  - remove the upper and lower washing arms;
  - remove the caps and clean the arms with fresh water.



- Clean the rinse arms:
  - remove the rinse arms;
  - unscrew the end cap;
  - clean nozzles and rinse the arms.



- Thoroughly clean the internal wall and bottom of the tanks with water of high pressure, wash away all debris and dishwasher surroundings.
- Refit the pump filter, the overflows, the flat filters and strainer baskets.
- Refit the wash and rinse arms.
- Refit all the curtains;
- Clean the exterior with wet cloth and neutral soap.
- Leave the door ajar so that air can circulate inside, preventing the formation of unpleasant odours.

**NOTE!**

Open the access door after the power switch turned off for 30 seconds, in case that hot water splash out on operators.

**CAUTION**

When the machine is running, the operators **MUST** not stretch out hands into the machine or reach containers scattered inside.

**I.3 Maintenance**

The inspection and maintenance intervals depend on the actual machine operating conditions (total wash hours) and ambient conditions (presence of dust, damp, etc), therefore precise time intervals cannot be given. In any case, careful and periodical machine maintenance is advisable in order to minimise service interruptions.

It is advisable to:

- Descale the boiler, inner surfaces of the tank and the machine's pipes once or twice a year (call the Customer Care Service).
- Every month descale the wash and rinse jets with scale remover (call the Customer Care Service).
- The internal tube of the peristaltic rinse aid and detergent dispenser must undergo periodical maintenance (call the Customer Care Service).

**NOTE!**

It is also advisable to sign a preventive and scheduled maintenance contract with the Customer Care Service

**I.3.1 Repair and extraordinary maintenance**

Repair and extraordinary Maintenance have to be carried out by specialised authorised personnel. The manufacturer declines any liability for any failure or damage caused by the

intervention of an unauthorized technician by the Manufacturer and the original manufacturer warranty will be invalidated.

**I.3.2 Parts and accessories**

Use only original accessories and/or spare parts. Failure to use original accessories and/or spare parts will invalidate the original manufacturer warranty and may render the machine not compliant with the safety standard.

**I.3.3 Prolonged period of inactivity**

If the dishwasher is not to be used for a long time, proceed as follows:


- Close the water supply tap.
- Completely drain the tank.
- Remove and carefully clean the filters.
- Completely drain the dispenser hoses (call Customer Care Service).
- Completely drain the boiler (call Customer Care Service).
- Spread a thin film of Vaseline oil over all the stain-less steel surfaces.

**I.4 Machine disposal**

At the end of the product's life cycle, make sure the equipment is not dispersed in the environment. The equipment must be disposed of in compliance with current regulations in the country of use.

All metal parts are in stainless steel (AISI 304) and removable. Plastic parts are marked with the letters of the material.




The symbol  on the product indicates that this product should not be treated as domestic waste, but must be correctly disposed of in order to prevent possible negative consequences for the environment and the human health.

Regarding the recycling of this product, please contact the sales agent or dealer of your product, your Customer Care service or the appropriate waste disposal service.

**J TROUBLESHOOTING****J.1 Common faults**

<b>Dishwasher does not switch on</b>	<ol style="list-style-type: none"> <li>1. Check if the power supply plug is powered.</li> <li>2. Check if the power supply cable is properly inserted into the plug.</li> <li>3. Check the fuse and replace it if necessary.</li> <li>4. Check if the external residual current circuit-breaker is activated.</li> </ol>
<b>Dishwasher does not wash well</b>	<ol style="list-style-type: none"> <li>1. Check if the suction filter is dirty and clean it thoroughly.</li> <li>2. Check if the wash jets are clogged by solid food remains.</li> <li>3. Check that the initial amount of detergent or subsequent additions are correct.</li> <li>4. Check that the tank temperature is at least 60 °C.</li> </ol>
<b>Condensation on glasses</b>	<ol style="list-style-type: none"> <li>1. Check that there is rinse-aid in the container and, if necessary, top up.</li> <li>2. Check the set amount of rinse aid.</li> </ol>
<b>Stains on the glasses</b>	<ol style="list-style-type: none"> <li>1. Only use "non-foaming" products for professional dishwashers.</li> </ol>
<b>Excessive foam in the tank</b>	<ol style="list-style-type: none"> <li>1. Check if the wash water temperature is not less than 60°C.</li> <li>2. Check if there is excessive detergent.</li> <li>3. Ensure that the tank has not been cleaned with unsuitable cleaners. Drain the tank and rinse thoroughly before new wash cycles.</li> <li>4. If a foaming detergent has been used, drain and refill the tank with water until the foam disappears.</li> </ol>
<b>Smears or spots on the glasses</b>	<ol style="list-style-type: none"> <li>1. Reduce the amount of rinse-aid.</li> </ol>
<b>Rinsing water flow is too low</b>	<ol style="list-style-type: none"> <li>1. Check on the pressure gauge if the water pressure is at least 2 bar.</li> </ol>

<b>Continuous rinse operation</b>	<ol style="list-style-type: none"><li>1. Check if any object is in front of the photoelectric safety device in the inlet module switch. If the fault persists call Customer Care Service.</li></ol>
<b>No or slow fill</b>	<ol style="list-style-type: none"><li>1. Check if the filter of the water inlet hose is dirty. Close the water supply tap, unscrew the water inlet hose, clean the filter and refit it.</li></ol> <p> <b>CAUTION</b> Always use a new set of joints if you remove and refit the water inlet hose.</p>

## 序 言



安装、使用和维护手册（下文简称“手册”）为用户提供了正确和安全地使用机器（或称“设备”）所必需的信息。以下不能被视为长期和严格的警告列表，而是一组在各个方面提高机器性能的适当说明，尤其是防止由于操作程序不当而造成人身和动物伤害或财物损坏。参与机器运输、安装、调校、使用、维护、维修和拆卸的人员在开始各种操作前，应仔细阅读本手册，以防止错误和不当的行动破坏机器整体性或出现人身伤害。务必定期将安全规定告知用户。务必就机器的使用和维护向经授权操作机器的人员提供说明和更新信息。本手册必须始终可让操作人员随时查阅使用，并妥善保存在机器所在之处，这样在有疑问或需要时始终可供查阅。如果阅读本手册后，对机器的使用仍有疑虑，请立即联系制造商或授权的服务中心，以获得迅速和准确的援助，以便更好和最高效地操作本机。在机器使用的各个阶段，始终遵守现行安全、工作卫生和环保法规。使用者负责确保机器只在对人、动物及财物安全的最佳条件下启动和操作机器。



### 重 要

- 制造商对由于不遵循本手册中的指示而在设备上进行的操作所造成的损失概不负责。
- 制造商保留对本手册中叙述的设备进行修改而恕不另行通知的权利。
- 禁止部分或完整转载本手册。
- 本手册有数字版本，获取方式为
  - 联系经销商或售后服务部；
  - 在网站上下载最新的手册；
- 手册必须始终放置在机器附近易于拿取的位置。机器操作人员和维护人员必须能够随时方便地查阅手册。



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## A 安全信息

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### A.1 一般信息

要确保机器的安全使用以及正确理解手册，必须熟悉文档中使用的条款和印刷约定。为了标记和识别各种危险情形，本手册使用了以下的符号：



**警告**

操作员的健康和生命危险。



**警告**

触电危险-危险电压。



**警示**

机器或产品受损风险。



**重要**

有关产品的重要说明或信息



使用设备前请仔细阅读说明







说明和解释

### A.2 一般安全

- 本设备不得由残疾、聋盲或智障人士或缺乏相关经验和知识的人员（包括儿童在内）使用，除非这些人员在负责其安全的人员的指导下使用本设备。
  - 请勿让儿童操作本设备。
  - 将所有包装和洗涤剂放置在儿童接触不到的地方。
  - 儿童必须在成人监督下进行清洁和用户维护保养。
- 有关合适的个人防护用品，请参阅“A.3 个人防护用品”。
- 本手册的有几个插图示出了没有防护罩或防护罩已拆除的机器的全部或部分。这只是为了解释。不要在防护罩或保护装置停用的情况下安装机器。
- 请勿拆卸、篡改机器上的安全、危险和说明符号以及标签，或使其不符合要求。
- 不要删除、篡改机器的标签或使之难以辨认。
- 不要删除或篡改机器的安全装置。
- 未经授权的人员不得进入工作区域。
- 从工作区移除任何易燃产品或物品。

### A.3 个人防护用品

在机器使用寿命的各个阶段将要使用的个人防护用品(PPE)的汇总表。

阶段	防护服 	安全鞋 	手套 	眼镜 	安全头盔 
运输	—	●	○	—	○
搬运	●	●	○	—	—
拆包	○	●	○	—	—
安装	○	●	○	—	—
正常使用	●	● <sup>1</sup>	●	○	—
调整	○	● <sup>1</sup>	—	—	—
例行清洁	○	● <sup>1</sup>	●	○	—
特别清洁	○	●	●	○	—
维护	○	●	○	—	—
拆卸	○	●	○	○	—
废弃	○	●	○	○	—
<b>图例:</b>					
●	要求使用个人防护用品				
○	可用或必要时使用个人防护用品				
—	不要求使用个人防护用品				

1. 使用适合与水 and 所用物质接触的耐热手套（见用于检查其它可能 PPE 的所用物质的安全数据表）。如果操作员、专业人员或用户不使用个人防护用品，可能会有暴露于化学品的风险，并可能损害健康（具体取决于型号）。

### A.4 水连接

- 操作水压范围（最低和最高）必须介于：
  - 100kPa 和 600kPa 之间
- 确保在首次使用机器过程中和之后看不到明显的渗水迹象。

### A.5 电气连接

- 电气系统上的操作只能由专业人员进行。
- 如果电源线损坏，必须由客户服务中心更换，或在任何情况下由专业人员更换，以防止任何危险。

### A.6 机器清洁和维护

- 有关适当的个人防护用品，请参阅“A.3 个人防护用品”。
- 将机器置于安全状态下，然后再开始维护操作。断开机器与电源的连接，然后小心拔下电源线插头（如果有）。
- 在维护期间，线缆和插头必须保持在执行工作的操作员可见的位置。
- 当手脚潮湿或赤脚时，禁止触摸机器。

- 请勿拆除安全护门。
- 在需要攀高的机器上工作时，请使用具有适当保护的梯子。
- 遵照各个例程以及特别的维护操作的要求。不遵照说明可能给人员造成风险。
- 特别维护、检查和大修操作只能由专业人员或客户服务中心执行，并且必须配备合适的个人防护设备（安全鞋和手套）、工具和辅助装置。

**日常保养**

- 严禁用水喷洗机器。
- 不采取适当的安全措施（如个人防护用品）而与化学物质(如洗涤剂，光亮剂，除垢剂等)接触，可能有暴露于化学物质的风险并可能有损健康。请参阅使用的产品上的标签 注释和安全信息。

**维修和特别维护**

- 维修和特别维护必须由专业授权人员进行。制造商拒绝对由制造商的未授权技术人员干预而造成的任何故障或损坏承担任何责任，并且原始制造商保修将失效。

**A.7 机器废弃**

- 电气设备上的操作只能由专业人员在断开电源的情况下进行。
- 拆除操作必须由合格人员进行。
- 剪断电源电缆和任何内格关闭装置，令废旧设备不可再使用，以避免人员受困在里面。
- 有关适当的个人防护用品，请参阅“*A.3 个人防护用品*”。
- 在拆解机器时，必须销毁“CE”标记、本手册以及其他有关设备的文档。

**! 重要**

请妥善保存以上说明，以便所有相关操作人员进一步咨询。

**B 一般安全规则**

**B.1 介绍**

机器配备保护工人和机器本身的电气和/或机械安全装置。因此，用户不得拆除或改装这些装置。制造商对自行改装或不使用它们所造成的任何损失概不负责。

**B.2 机械安全性能、危害**

该机器没有锋利的边缘或凸出部分。运动和带电部件的防护罩 均用螺钉固定到箱体，以防意外接触。

**B.3 防护罩**

机器上的防护罩是：

- 固定防护罩（如外壳、盖、侧面板等），用螺丝或快速连接器固定到机器和/或框架，只能用工具拆除或打开；
- 活动防护罩（门），拆卸后可以触及机器内部；
- 机器电气设备顶部检修面板，由可通过工具打开的面板制成。机器与电源连接时，不得打开该面板。

**! 重要**

本手册的有几个插图示出了没有防护罩或防护罩已拆除的机器的全部或部分。这只是为了解释。请勿在防护罩或保护装置停用的情况下使用机器。

**B.4 紧急开关**

机器上安装有紧急开关，但仍然要求操作员在使用机器时要细心谨慎。

紧急开关紧用于在紧急情况下停止设备运行。

- 操作员必须知道安装在机器上的紧急开关位置。
  - 通往和操作紧急开关的路径必须保持无障碍物。
- 如果任何人发现存在人员安全危险，则必须立即执行紧急停机措施之一。这同样适用于机器的零件存在任何操作异常和/或损坏，要求立即停机的情况。

**B.4.1 紧急开关恢复**

当紧急开关按下后，只有确保以下情况后才能重新启动机器：


- 需要紧急开关操作的原因已被消除；
- 重新启动机器操作，不涉及任何危险。






如果紧急开关在使用机器的过程中被按下，则整个机器将被停用。

要恢复机器操作，步骤如下：

- 松开先前按下的红色紧急按钮，旋转或拉它以切断其联锁；
- 根据“H.3 开机”一节所述重新启动机器。

**B.5 在机器上或其附近区域布置的安全标志**

禁止	含义
	不要上油、润滑、维修和调整活动部件

	不要拆除安全装置	<p>本手册将向操作人员提供这些危险信息，并详尽解释了工作人员需要采取的个人防护措施。为了降低风险，请在安装设备时提供足够的空间。为了维持这些条件，机器周围的区域必须：</p> <ul style="list-style-type: none"> <li>● 不存在任何障碍物（如梯子、工具、容器和盒等）；</li> <li>● 干净和干燥；</li> <li>● 光线条件良好。</li> </ul> <p>为给客户id提供完整的信息，下面指出了机器的其余风险：这些情况都被认为不当，因此要严格禁止。</p>
	不要用水灭火（置于电气部件上）	
<b>危险</b>	<b>含义</b>	
	轧手危险	
	小心发烫表面	
	触电危险（在电器部件上标示，并标出电压）	

**B.6 使用和维护说明**

机器中主要是机械、热和电气性质的风险。可消除风险的途径：

- 通过适当的设计方案直接消除。
- 或通过防护罩、保护和安全设备间接消除。

任何异常情况都在控制面板显示屏上有信号表示。

在维护过程中的，几个风险依然存在，因为这些不能被消除，必须通过采用特定方法和预防措施来解决。

对活动部件不进行任何检查、清洗、维修或保养操作。必须通过清晰可见的标志将禁忌告知工人。

为了保证机器的效率和正确的操作，必须根据本手册中的指示进行定期维护。

确保定期检查所有安全装置是否正确操作和电源电缆是否绝缘，如有损坏，必须更换。

**B.7 可合理预见的不良使用**

不良使用，是指与本手册中规定不符的使用。在机器运转期间，其它类型的不良工作或活动，通常指那些可能会对操作人员引起安全风险和对设备造成损坏的工作或活动。可合理预见的不良使用包括：

- 缺乏机器维护、清洗和定期检查；
- 改变机器结构或对操作流程进行修改；
- 自行改装防护罩或安全装置；
- 操作员、专业人员和维护人员未使用个人防护用品；
- 未使用合适的附件（例如使用不合适的设备或梯子）；
- 在机器附近存放可燃或易燃材料，或无论如何都与工作不兼容或相关的材料；
- 机器安装错误；
- 在机器中放置任何与其用途不符、可能会损坏机器并造成人员伤害或污染环境的物体或东西；
- 在机器上攀爬；
- 不符合正确使用机器的要求；
- 其它会产生无法通过设备制造商消除的风险的行动。



**警告**

禁止之前所述的行动！

**B.8 结束使用**

如果不再使用设备，则通过拆下电源供电线使其不可用。

**B.9 其他危险**

机器存有从设计角度或装设适当防护设施后无法完全排除的危险。

其它危险	危险情形描述
滑倒或跌倒	操作人员有可能会由于地面上有积水而滑倒
钩住、拖曳或轧伤	在机器工作期间，由于以下不当的行为，钩住或拖曳操作员或其他正在走动的人员： <ul style="list-style-type: none"> <li>● 在机器内放置喷臂以取出卡住的碟筐，但未预先按下紧急开关停机；</li> <li>● 未预先按下紧急开关停机就进入碟筐处理系统。</li> </ul> 穿用松散服饰（如项链、围巾、披肩、领带等）或没有束好的长发，可能会绞入运动部件。
灼伤/擦伤（例如加热元件、冷冻盘、制冷回路盘和管道）	操作人员故意或无意触碰机器内的一些组件而没有使用防护手套。
刺伤	在机器清洁期间，操作人员故意或无意触碰具有尖锐边缘的一些组件而没有使用防护手套。
烫伤	如操作人员在没有佩戴手套或没有等待部件冷却下来时，有意无意间触碰机器内部的某些部件。
割伤上肢	操作员用力关闭面板。
触电	在配电柜带电的情况下进行维护作业时，触碰机器的带电部分
从高处跌落	操作人员维修时使用不当的工具到达机器上部（如：梯子）
挤压或受伤	在检修技术内格时，专业人员可能没有正确安装控制面板。面板可能意外关闭
压伤和割伤	在关闭篷盖期间有可能会有上肢损伤的危险。
载荷物翻到	利用不适当的提升系统或附件来移动机器或含有机器的包装，装载的货物不平衡
化学产品	不采取足够的安全措施接触化学物质（如清洁剂、光亮剂、除垢剂等）。请参阅使用的产品上的标签注释和安全信息。



**重要**

如果有显著故障（如短路，接线端子板的导线，电机故障，磨损电器电缆护套等），操作员必须立即停用机器。

**C 一般信息**

**C.1 介绍**

下面是有关此设备的预期用途和测试的一些信息，以及所用符号的描述（确定警告类型）、手册中使用的术语的定义以及对设备用户有用的信息。

### C.2 定义

下面列出的是本手册中所用的主要术语的定义。建议在使用之前仔细阅读

操作员	机器安装、调节、使用、维护、清洁、维修和运输人员。
制造商	Electrolux Professional China 或由 Electrolux Professional China 授权的任何其他服务中心。
正常使用机器的操作人员	受过制造商指导/培训的操作人员，基于他的专业技能培训，他的经验以及在故障预防方面的知识，能够评价在机器上进行的操作并识别和防止可能出现的任何风险。其他的专业涵盖了机械、电工和电子领域。
客户服务中心或专业技术人员	可能造成损伤或危害健康的来源。
危险	操作员暴露于一个或多个危险的任何情况
危险情况	在危险的情况下伤害或危害健康的可能性和风险的组合。
风险	使用特定技术工具（防护罩和安全装置）保护操作员免受风险的安全措施。
保护设备	机器中以特定使用方式提供隔离保护的一种部件。
安全装置	消除或减少风险装置（除了护栏以外）；它可以单独使用，或与护栏结合使用。
客户	购买机器和/或管理和使用机器的人（如公司、企业家、工厂）。
紧急制动装置	一组用于紧急停机功能的部件；该装置通过简单动作激活，可防止或减少对人/机器/财物/动物的损害。
触电	意外事故造成对人体放电。

### C.3 机器和制造商的标识数据

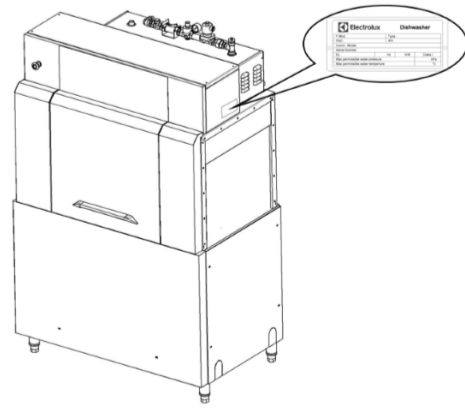
机器上的标识或铭牌的示例如下：



铭牌提供产品标识和技术数据；下面列出了在其上提供的各种信息的含义。

F.Mod.	产品生产厂家的说明
Comm.Model	商业型号
PNC	生产编号代码
Ser.No.	系列号
380-415V3N~	电源电压
—	电可转换性
50 或 60	电源频率
60°C	最高水温
600kPa	最大水压
IPX4	防水、防尘等级
伊莱克斯（上海）商用机器有限责任公司	制造商

铭牌位于设备的前面板上。



**警告**

不要删除、篡改机器标志或使之难以辨认



**重要**

当废弃机器时，标志必须销毁。



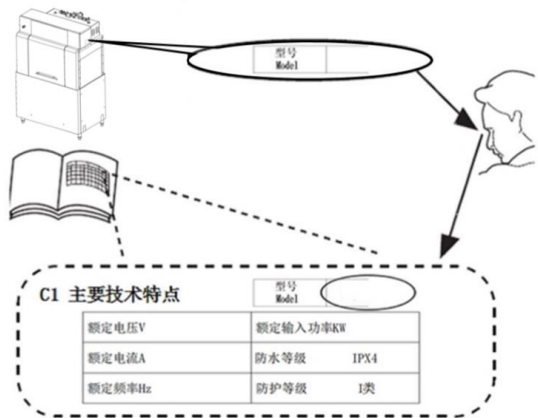
**请注意！**

请参照机器标志之上的数据，来查阅与制造商相关的数据（例如订购备件等）。

### C.4 设备标识

#### C.4.1 如何识别技术数据

- 请阅读铭牌上的产品(F.Mod.)出厂说明；
- 确定主要机器数据；
- 请查看段落 F.1 主要技术特点



#### C.4.2 如何理解厂家说明

铭牌上的厂家说明具有以下含义（下面给出了一些例子）：

(1)	(2)	(3)	(4)	(5)	(6)	(7)
E	SR	20	E	L	5	/
E	SR	20	E	R	5	/
E	SR	20	E	L	3	/
E	SR	20	E	R	6	/
E	SR	20	E	L	5	TL
E	SR	20	E	R	5	TL



**变量描述**

(1)品牌	E=Electrolux Professional
(2)机器类型	RT=通道式洗碗机
(3)碗碟/小时	20=200 筐/小时
(4)电源	E=电加热 S=蒸汽加热
(5)方向	L=左进 R=右进
(6)频率	5=50Hz 6=60Hz 3=220V60Hz
(7)额外配置	TL=71 度试纸

**C.5 责任**

制造商对以下所造成的任何损坏和故障概不负责

- 与本手册中的说明不符;
- 由非授权人员进行维修, 使用非认定的备件进行更换 (安装和使用非原装的备件和配件, 会对机器操作产生负面影响并让初始制造商保修失效);
- 由非专业人员执行操作;
- 未经授权的改装或操作;
- 没有进行维护或维护不足;
- 机器使用不当;
- 不可预见的非常事件;
- 不熟悉和未受过培训的人员使用机器;
- 机器的使用不符合所在国家关于工作场所的安全、卫生和健康的现行规定。

制造商对由用户或客户进行的任意修改或改型操作而造成的损坏概不负责。

雇主、工作场所的经理或维修技术人员负责按照所在国家的现行法规确定和选择适当的个人防护用品, 让操作员穿戴。

制造商对由于印刷或翻译错误而在手册中包含的可能不准确的描述概不负责。

客户从制造商收到的对于安装、使用和维护手册的任何补充将构成手册密不可分的一部分, 因此必须和手册一起保存。

**C.6 版权**

本手册仅供操作人员查阅, 要提供给第三方, 必须得到伊莱克斯 (上海) 商用机器有限责任公司的授权。

**C.7 保存手册**

本手册必须在机器的整个使用寿命期间妥善保存, 直到报废。本手册在机器转让、出售、出租、批准使用或租赁等情况下必须随机保存。

**C.8 本手册的受众**

本手册用于:

- 机器使用者的雇主和工作场所的管理者
- 正常使用机器的操作人员
- 专业技术人员-客户服务中心 (请参阅“服务手册”)。

**C.9 保修条款和排除**

- Electrolux Professional 根据当地法规提供保修服务, 但前提是设备按照设计目的安装并用于适当的设备文档中所述。
- 如果客户仅使用原厂备件并进行了维护, 则保修适用。符合 Electrolux Professional 的用户和维护要求。
- Electrolux Professional 强烈建议使用 Electrolux Professional 认可的清洁剂, 进行冲洗和除垢代理以获得更好的结果并随着时间的推移保持产品效率。伊莱克斯专业保修不涵盖因外部原因导致的损坏和效率低下。制造商的责任, 例如:
- 电气, 液压和燃气系统的容量不足和异常, 电源电压不规则, 其中包含杂质供气或供水不符合每台机器的技术要求, 抽气系统不足, 客户的疏忽和滥用;
- 由于不适当的清洁剂, 添加剂或清洁剂的作用而导致的劣化;
- 不遵守本手册中详细使用说明的使用和保养说明;
- 未经伊莱克斯专业人员书面委托的第三方进行的篡改, 修改和维修;
- 使用非原装组件 (例如: 易损件, 磨损或备件);
- 修改安全系统;
- 不良的维护和滥用;
- 保修不包括计划内的计划维护活动或清洁剂的供应, 除非特别说明受当地条款和条件约束, 在任何本地协议中均包含在内。

**D 正常使用****D.1 正确使用**

本机器经特别设计和完善, 旨在获得卓越的性能和效率。此设备必须只用于设计的使用目的, 即用水和专用洗涤剂洗涤碗碟。任何其他用途均被认为不当。

**D.2 能够上机操作人员的要求**

客户负责确保被分配从事各项职责的人员:

- 阅读和理解本手册;
- 获得适当的培训及他们的职责说明, 以安全地执行职责;
- 获得正确机器使用的专门培训。

**D.3 针对机器正常使用进行培训人员的要求**

客户必须确保由受过适当培训并通晓自己职责的人员操作机器, 并能确保自己和他人的安全。

客户必须确保其人员理解所收到的说明, 特别是那些关于工作卫生和机器使用安全方面的说明。

**D.4 机器正常使用的合格操作人员**

必须至少具备:

- 操作机器的技术和具体经验的知识;
- 受过基础教育, 阅读和理解本手册内容相关的技术知识, 包括正确地解释绘图、符号和象形图;
- 安全执行手册中规定的职责的足够技术知识;
- 劳动卫生和安全条例的知识。

如果有显著故障 (如短路, 接线端子板的导线, 电机故障, 磨损电器电缆护套等), 正常使用机器的操作员必须:

- 将开关切断器转动到“O”或按下设备上的主要紧急开关, 立即停机;
- 关闭水龙头, 关闭机器的供水。

**E 产品概述**

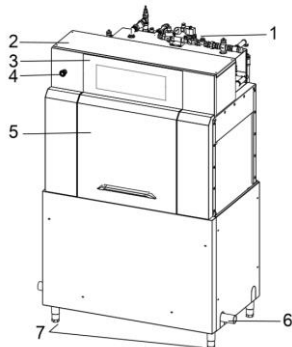
### E.1 产品描述

通道式洗碗机适用于用塑料和/或钢制的碗碟，杯子，杯子，餐具，托盘，容器和容器来洗涤，烹饪和使用;以及陶瓷和/或金属的各种炊具。为上述应用而设计。

在任何情况下都不能将机器用于本手册未提供的其他应用程序或方式。该机器的生产是为了满足更好的工作环境和经济效益的需要。机架式洗碗机用于餐厅，自助餐厅，烹饪中心和大型机构。特殊的篮筐可以配备各种插入物，提供实用且便于操作，可以实现出色的洗涤效果。内置的篮筐操作机构可以自动运输。

电子系统可以对洗涤过程进行完全监控。在这种类型的机器中，通过各种清洗功能将机架从装载点移至卸载点。用于刮擦和润湿餐具的系统（例如手动预洗喷雾）以及用于分拣和布置餐具的系统，必须将搁板布置在洗碗机之前。

### E.2 机器概述



1	进水口
2	电箱
3	操作面板
4	急停按钮
5	门
6	排水管
7	支撑脚

### E.3 机器功能描述

#### 控制盒

控制盒位于洗碗槽的上部,控制面板共有三个操作控制开关:即电源开关(OFF-ON)、停止/启动开关(OFF-ON)、手动/自动切换开关(手动-自动)。控制电路变压器的功能在于将不同的电源电压降至 110V 供控制回路使用。控制面板上有清洗温度表和喷淋温度表,清洗温度表用于显示清洗缸水温,正常温度为 55°C - 65°C;喷淋温度表用于显示加热包内温度即喷淋温度,温度范围为 82°C - 90°C。

#### 马达和泵部件

清洗泵为离心式铸造不锈钢泵,泵壳及叶轮均为不锈钢。清洗水箱超温器保护水箱里的一个浮球开关,会在水位太低时自动将加热源关闭。等到水位恢复安全状态后,加热电路会在机器需要加热时重新开启。电力加热装置设有超温保护装置。倘若发生过热现象,加热会自动停止。请将电源开关按至 OFF,并和您当地授权服务站联络。

#### 加热包过热保护装置

加热包内部设置水温控制器。温控器使喷淋水温保持在 82 - 90°C 范围内。温控温度出厂时已设定好,用户请勿随意调整温控器。如喷淋温度无法在正常范围内工作,请将电源开关按至 OFF 位置,并和您当地授权服务站联络。

#### 加热包过热保护装置

为确保加热包正常运行,在控制箱中设置了断路器。过热或短路时发生在主电路中时,断路器将自动断开电源。

#### 门连锁

门连锁开关会使机器在检视门没有关闭好的时候无法开始操作。如果检视门在机器操作过程中被打开,泵及输送带会自动停止。门关上之后,必须将停止/启动开关按至 ON,机器才会重新运转。

#### 清洗、冲洗臂

清洗及冲洗的上下洗臂都是可拆卸的。

#### 自动注水

关上门后将电源开关按到 ON 的位置,机器便开始自动注水。自来水先经加热包加热升温,然后进入清洗水箱,直至水箱加满水为止,电磁阀自动关闭。

#### 自动计时器

自动计时器位于控制盒前面板,其功能在于节省能源,可在最后一个碗筐送出洗碗机后,关闭水泵、驱动马达。若要再重新启动,请将洗碗筐推进机器内,或将停止/启动开关按至 ON 的位置。如果您想改变设定的时间,请和您当地授权服务站联络。

#### 清洗限位架和喷淋限位架

清洗限位架位于机器的入口,仅在计时器处于自动状态时才起作用。当机架进入机器时,将开始清洗。漂洗装置重新放置在机器出口处。当架子从清洗槽进入冲洗区时,其内部执行器启动,最终冲洗开始。

#### 清洗、冲洗臂

清洗及冲洗的上下洗臂都是可拆卸的。



## F 技术参数

### F.1 主要技术特点

#### 电气参数

型号		ESR20xxx	ESR20xxx3	NMDSREx (可选配件)
三相电压	V	380-400 3N	220 3	380-400 3N
可转换为	V	—	—	—
频率	Hz	50 或 60 <sup>1</sup>	60	50 或 60 <sup>1</sup>
额定功率	kW	45.8	27.8*/50.8	4.3
加热包加热管功率	Kw	36	18*/36	/
水箱加热管功率	kW	7.5	7.5*/12	/
烘干加热管功率	kW	/	/	4.3
进水压力	Kpa [bar]	100kPa[1bar] 600kPa[6bar]	100kPa[1bar] 600kPa[6bar]	100kPa[1bar] 600kPa[6bar]
进水硬度	°fH [°dH]	14 [8]	14 [8]	14 [8]
水中氯化物的浓度	ppm	<20	<20	<20
进水电导率	mS/cm	<400	<400	<400
进水温度	°C	10-60	50-60*/10-60	/
冷水进水温度	°C	10-60 <sup>2</sup>	50-60*/10-60	/
热水进水温度	°C	10-60 <sup>3</sup>	50-60*/10-60	/
喷淋水消耗量	l/h	300	300	/
加热包容量	l	23	23	/
水箱容量	l	90	90	/
噪音等级	dB(A)	<70	<70	<70
防护等级		IPX4	IPX4	IPX4

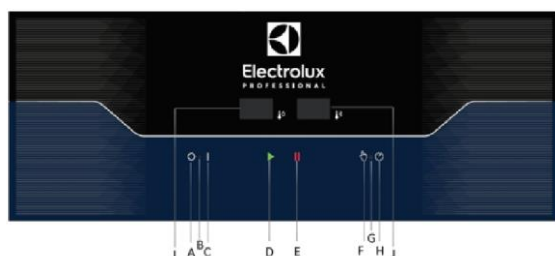
1. 可选择 50Hz 或者 60Hz 的机型 \*代表低功率机型
2. 推荐冷水进水温度 10°C
3. 推荐热水进水温度 50°C

主要 ON/OFF 开关 (漏电断路器)					
额定功率[kW]		45.8	50.3	50.1	54.6
C	380V	90	100	100	108

电源线				
额定功率	45.8	50.3	50.1	54.6
线径	YJV3*35+2*16 YJV3*35+2*10	YJV3*35+2*16 YJV3*35+2*10	YJV3*35+2*16 YJV3*35+2*10	YJV3*35+2*16 YJV3*35+2*10

## G 控制面板描述

### G.1 控制面板介绍



A	OFF 按钮
B	电源指示灯
C	ON 按钮
D	开始按钮
E	暂停按钮
F	手动按钮
G	自动指示灯
H	自动按钮
I	水箱温度显示
J	加热包温度显示

### G.2 基本控制

部分功能对范围内的所有型号都是通用的，而另一些功能只有某些型号才有。

	ON 按钮	按下 ON 按钮将洗碗机启动 当机器启动时，led 灯亮起
	OFF 按钮	按下 OFF 按钮关闭洗碗机
	开始按钮	按下开始按钮，机器开始运行
	暂停按钮	按下暂停按钮，清洗暂停
	手动按钮	按下手动按钮，机器将手动送筐
	自动按钮	按下自动按钮，机器将自动送筐
	水箱温度显示	显示水箱的工作温度
	加热包温度显示	显示加热包的工作温度

## H 机器日常使用

### H.1 过滤网和溢水管的安装

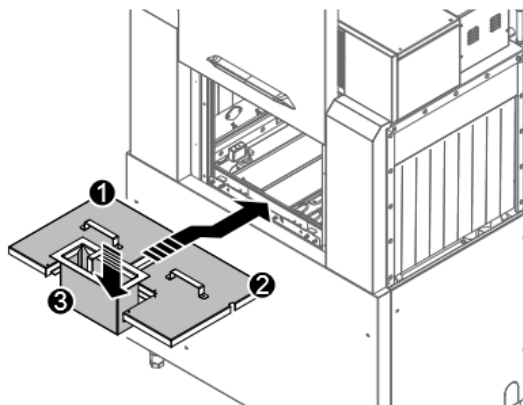


**警示**

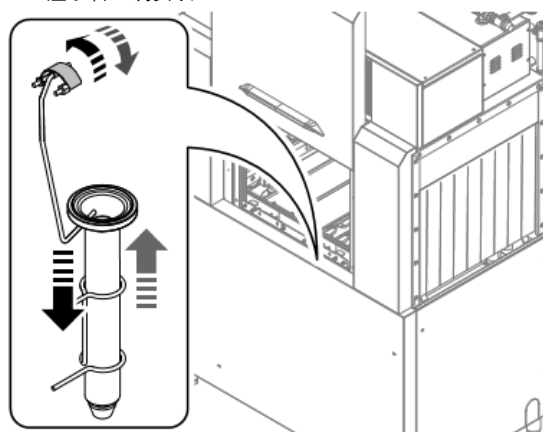
当机器冷却并且关闭时必须执行下面的操作。

确保：

1. 过滤网正确安装；



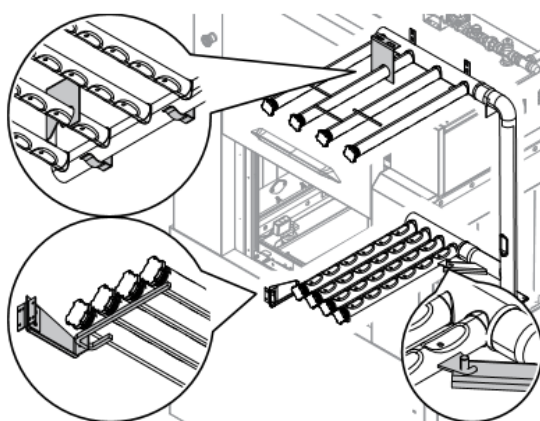
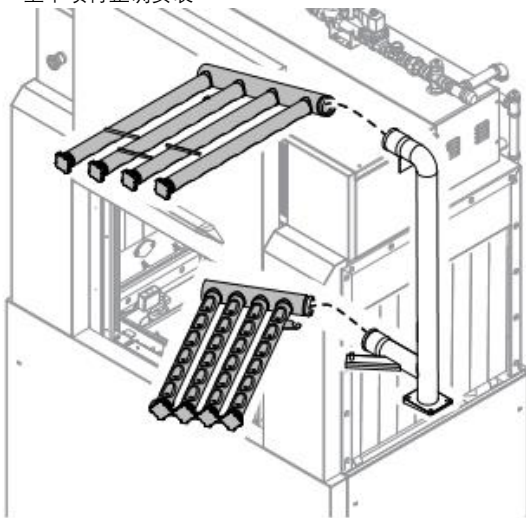
2. 溢水管正确安装



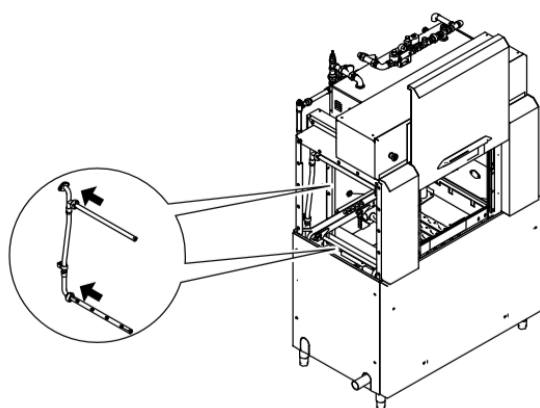
## H.2 主洗臂和喷淋管的安装

确保:

### 1. 上下喷臂正确安装

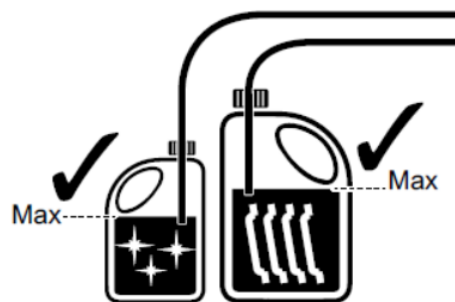


### 2. 喷淋管正确安装



## H.3 开机

- 确保正确安装随机器提供的所有型号的帘子。
- 关闭机器各模块的门。
- 检查洗涤剂或光亮剂容器。
- 重新灌注它们或用新的更换，以便始终得到良好的洗涤结果。



请注意!

为了获得卓越的洗涤性能，请使用 Electrolux Professional 建议的洗涤剂、过水光亮剂和除垢剂。在 Electrolux Professional 网站上，打开“配件和消耗品”网页，然后导航到洗碗设备选项卡以订购最合适的洗涤剂和配件。



警告

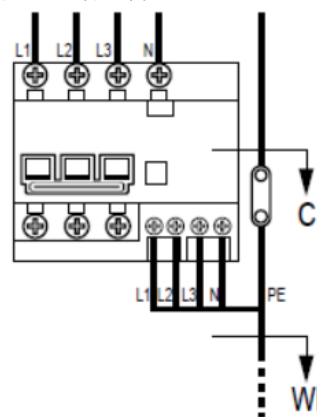
使用“泡沫型/非规定”的洗涤剂，或没有根据制造商规定的方式使用洗涤剂，将会导致洗碗机损害和影响洗涤效果。



警告

使用化学品时，请遵守包装上印刷的安全注意事项和剂量建议。有关化学产品的处理，请参阅A.3 个人防护用品一章。

- 激活主开启/关闭开关。





- 打开水龙头





- 确保过滤器、臂和溢流管正确装配在其位置上。
- 按下开启按钮将洗碗机开启。



在加水和加热阶段期间，暂停按钮的红色指示灯  每隔一秒交替闪烁。

当洗碗机准备好工作时，开始按钮的绿色指示灯  闪烁2次，持续2秒，然后熄灭，并且洗涤箱和锅炉的显示器示出工作温度。

	水箱温度
	加热包温度

- 要将洗碗机关闭，按下关闭按钮。



#### H.4 运行

在开始运行前必须连接电源，并且打开进水阀门。当你已经检查过上述步骤时，机器已经准备就绪。

##### H.4.1 将碗碟装在架子上

这台洗碗机可以用来清洗篮子里的杯子，盘子，刀子和叉子。餐具需要先清洗，然后再装入机器。并应整齐地排放在篮筐中。



**重要**

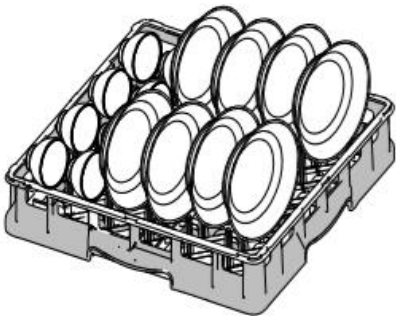
每一个篮筐的重量不能超过 12kg，否则用于传动的机构收到影响。



**警示**

未及时取走完成洗涤的篮筐将会使传动机构停止，解决问题后按ON按钮进行重启。

- 碗和碟子在篮筐中整齐排列。



- 篮筐之间的间隔不应太短。带有多个角度的清洗臂无法完美地清洗餐具。
- 在清洗大碗碟之前，请确保它们能顺利通过。如果无法轻易通过机器，请不要再试。
- 从操作台上取下篮子，并及时放入架子。
- 一名操作员将篮筐整齐地放入机器中，然后按START（开始）按钮。
- 机器开始洗涤，然后在最后出口经历一个洗涤周期后结束。
- 第二名操作员将初步清洁的餐具移入篮筐。如果餐具激活了限位开关，则洗碗机将立即停止。在解决之后按 ON，然后重新启动。





**警告**

挤压危险。

确保手掌和手臂远离入口区域。

#### H.4.2 改变运行模式

1. 按下手动按钮使用手动模式。 手动模式更高效并且更快速的清洗餐具
2. 按下自动按钮使用自动模式。 自动模式更绿色节能。

#### H.4.3 开始/停止清洗周期

确保所有的机器门已经关闭。

按下控制面板上的 ON 按钮，然后按下开始按钮，机器开始运行。

按下控制面板上的暂停按钮，然后按下 OFF 按钮，机器停机。

如果发生任何紧急事件，按下急停按钮，洗碗机将会即刻停止。

## I 日常清理和维护



**警告**

参考“安全信息”

### I.1 机器清洁

每天使用后必须进行清洗。用热水（如有必要使用中性洗涤剂/清洁剂）以及软刷或海绵清洗。如果使用其它类型的洗涤剂，应仔细遵循制造商的指示，并遵守随附产品或物质信息

表中规定的安全规则。

为了减少污染物对环境的影响，建议使用 90% 以上可生物降解的产品清洁机器（必要时清洁外部和内部）。



**警示**

清洁不锈钢表面时，请勿使用钢丝布或类似材料。不要使用含氯的洗涤剂。



**警告**

使用化学品时，请遵守包装上印刷的安全注意事项和剂量建议。有关化学产品的处理，请参阅 A.3 个人防护用品一章。



**1.2 每日内部清洁**



**重要**

建议每次工作之后或至少每日一次对洗碗机进行清洁。



**警示**

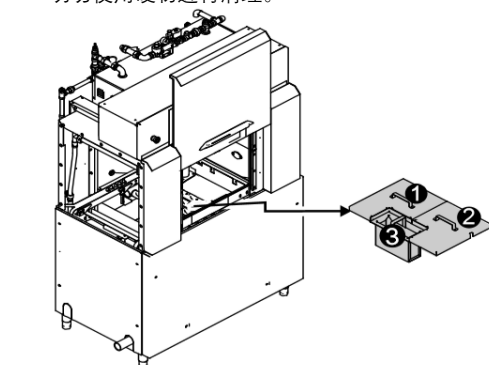
清洁不锈钢表面时，请勿使用钢丝布或类似材料。不要使用含氯的洗涤剂。



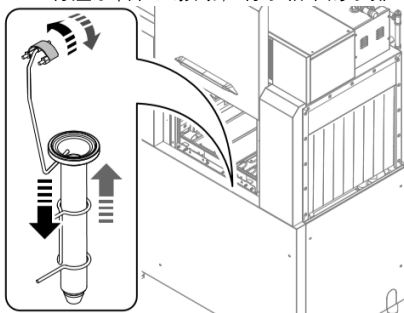
**请注意!**

为了更好的效果，可使用带塑料刷毛和海绵的刷子。

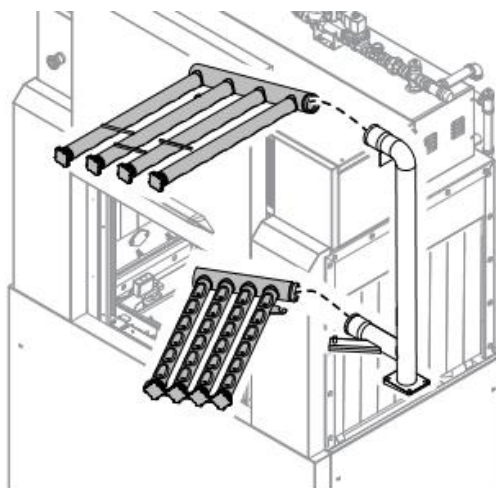
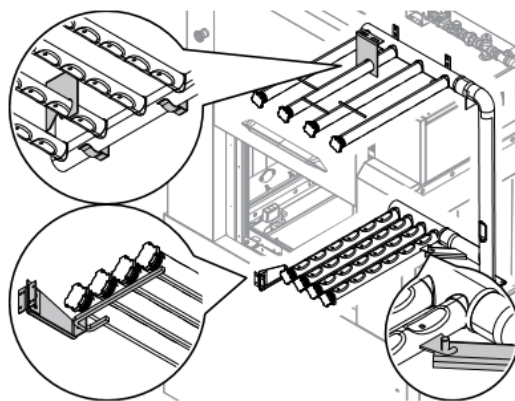
1. 关闭洗碗机，断开主断路器。打开洗碗机所有机门。
2. 取出主洗缸不锈钢过滤网，用清水进行清洗。切勿使用硬物进行清理。



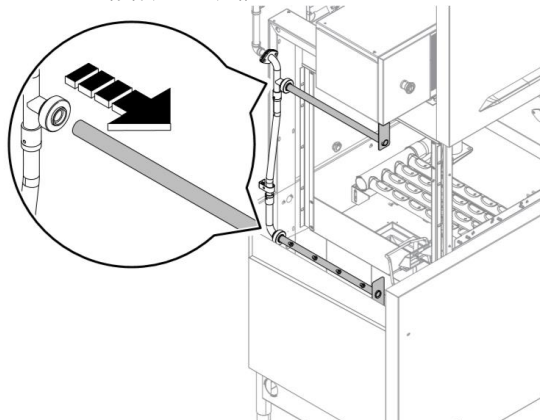
3. 将溢水管往上拨动，将水箱中的水排出。



4. 将挡水帘拆下并且清洗。
5. 喷水以洗去进水口和出水口桌上的杂物，彻底清洁设备内部；
6. 当水箱内水放空时，清洁泵过滤器。
7. 清洗主洗臂
  - 拆除上下主洗臂
  - 拆除闷盖，并用清水清洗闷盖和主洗臂。



8. 清洗喷淋臂
  - 拆下喷淋臂
  - 清洁喷嘴和喷淋臂



9. 用高压水彻底清洁储罐的内壁和底部，洗净所有杂物和洗碗机周围环境。
10. 对泵过滤器，溢流口，扁平过滤器和滤网进行安装。
11. 重新装上清洗臂和喷淋臂。
12. 重新装上所有窗帘；
13. 用湿布和中性肥皂清洁外部。
14. 打开门让空气可以在内部流通，防止形成难闻的气味。



**请注意!**

如果热水溅到操作员身上，在电源开关关闭 30 秒之后打开检修门。



**警示**

当机器在运行时，操作员不得将手伸到机器内或触碰分散在其中的容器。

### 1.3 保养

检查和维修间隔时间取决于实际机器操作条件（总洗涤小时）和环境条件（存在灰尘，潮湿等），因此不能给出精确的时间间隔。在任何情况下，建议进行认真和定期的机器维护保养，以最大限度地确保机器正常运行。

建议：

- 对锅炉、水槽表面内和机器管道内除垢，每年一次或两次（致电客户服务中心）。
- 每个月用除锈剂将洗涤和喷淋装置除锈（请致电客户服务中心）。
- 必须定期维护蠕动光亮剂和洗涤剂分配器的内部管道（请致电客户服务中心）。



**请注意!**

还建议与客户服务中心签订预防和计划维护合同

### 1.3.1 维修和特别维护

维修和特别维护必须由专业授权人员进行。制造商拒绝对由制造商的未授权技术人员干预而造成的任何故障或损坏承担任何责任，并且原始制造商保修将失效。

### 1.3.2 部件和配件

只能使用原装配件和/或备件。不使用原装配件和/或备件将会使原始制造商保修失效，并且可能会导致机器不符合安全标准。

### 1.3.3 长期不使用时

如果有一段长时间不使用洗碗机，请执行下列操作：

- 关闭供水龙头。
- 将水槽彻底排空。
- 取下并仔细清洗过滤器。
- 完全排放分配器软管（请致电客户服务中心）。
- 完全排放锅炉（请致电客户服务中心）。
- 在所有的不锈钢表面上涂上一层凡士林油薄膜。

### 1.4 机器废弃

本设备在使用寿命结束后，确保不将设备随处丢弃。废弃设备

必须符合机器使用国的现行法规。所有金属部件均采用不锈钢(AISI 304) 制造且可拆卸。塑料部件带有所用材料的符



号标记。产品上的符号 表明本设备不能当作家庭废物处理，而应正确弃置，以免对环境和人体健康产生负面后果。有关本产品的循环再用，请联系产品销售代理商或经销商、客户服务中心或提供废物弃置服务的机构。

## J 故障排除

### J.1 常见故障

洗碗机不启动	<ol style="list-style-type: none"> <li>1. 检查是否接入了电源。</li> <li>2. 检查电源线是否正确插入到插头中。</li> <li>3. 检查保险丝并根据需要更换。</li> <li>4. 检查是否激活了外部剩余电流断路器。</li> </ol>
洗碗机清洗效果不佳	<ol style="list-style-type: none"> <li>1. 检查抽吸过滤器是否肮脏并彻底清洁它。</li> <li>2. 检查洗涤喷嘴是否被固体食物残渣堵塞。</li> <li>3. 检查初始的洗涤剂量或随后添加剂量是否正确。</li> <li>4. 检查箱温度是否至少为 60 °C。</li> </ol>
玻璃杯和碗碟不干燥	<ol style="list-style-type: none"> <li>1. 检查容器中是否含有光亮剂，在必要时请添加。</li> <li>2. 检查设定的光亮剂量。</li> <li>3. 检查水温是否介于 80°C 和 90°C。</li> </ol>
玻璃杯上有冷凝	<ol style="list-style-type: none"> <li>1. 检查容器中是否含有过水增亮剂，在必要时请添加。</li> <li>2. 检查设定的光亮剂量。</li> </ol>
玻璃杯上有污迹	<ol style="list-style-type: none"> <li>1. 只能将“非泡沫型”产品用于专业洗碗机。</li> </ol>
水箱中泡沫过多	<ol style="list-style-type: none"> <li>1. 检查洗涤的水温是否并未低于 60°C。</li> <li>2. 检查是否洗涤剂过多。</li> <li>3. 确保箱并未使用不适当的清洁剂清洁。排空水箱并在进行新的洗涤循环前彻底喷淋。</li> <li>4. 如果曾使用泡沫型清洁剂，请排空箱然后重新注水，直到泡沫消失为止。</li> </ol>
玻璃杯上有污迹或污点	<ol style="list-style-type: none"> <li>1. 减少光亮剂的量。</li> </ol>
冲洗水流速过低	<ol style="list-style-type: none"> <li>1. 检查压力表，确定水压是否至少为 2 bar。</li> </ol>
持续喷淋操作	<ol style="list-style-type: none"> <li>1. 检查是否有任何物体在入口模块开关中的光电安全装置前方。如果故障一直存在，请致电客户服务中心。</li> </ol>
不灌注或灌注缓慢	<ol style="list-style-type: none"> <li>1. 检查水入口软管的过滤器是否脏污。关闭水龙头，取下水入口软管，清洁过滤器并将其重新装配。</li> </ol> <p> <b>警示</b> 如果拆除并重新安装水入口软管，请始终使用一组新接头。</p>



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