Flight Type dishwasher

EFTD052E-EFTD064E-EFTD082E-EFTD108E-EFTD052S-EFTD064S-EFTD082S-EFTD108S



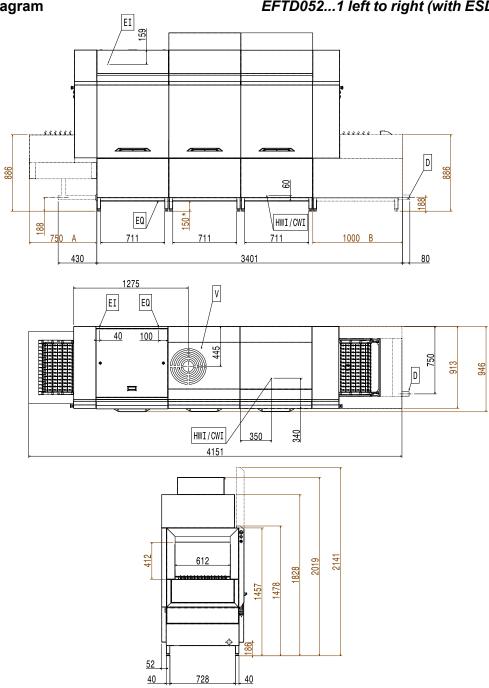
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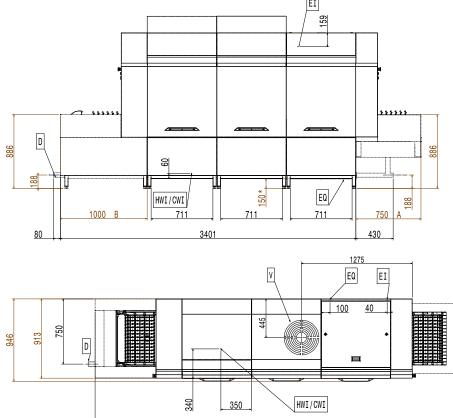
EN Installation manual *

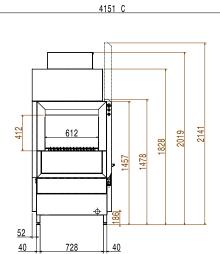


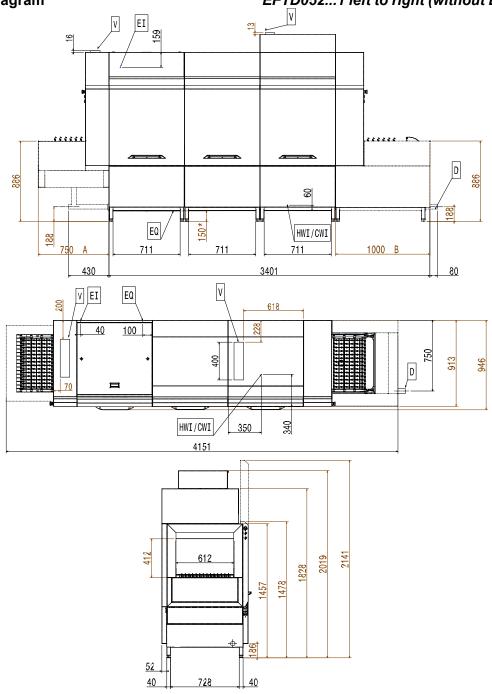
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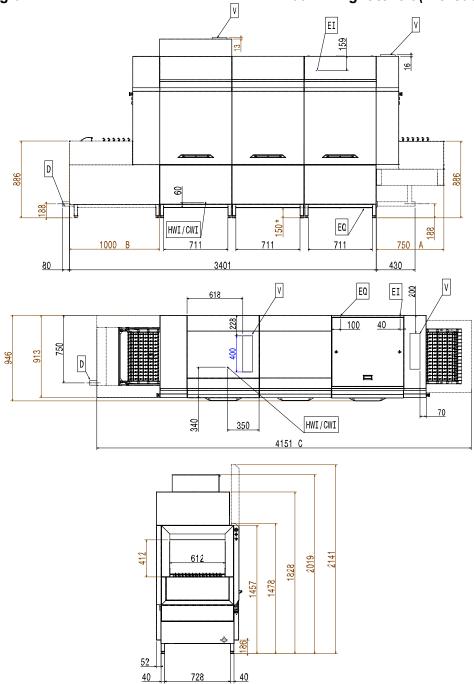
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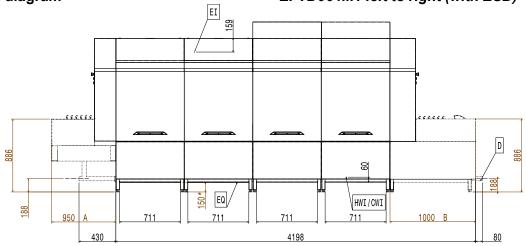


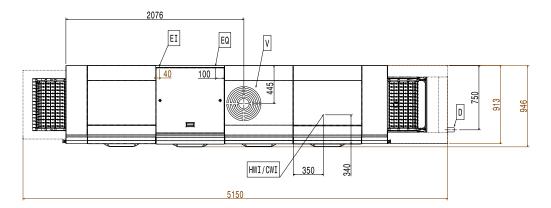


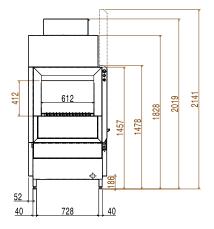


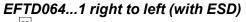


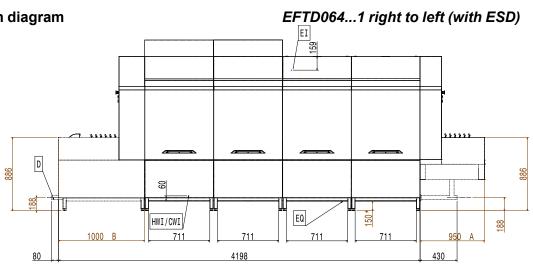


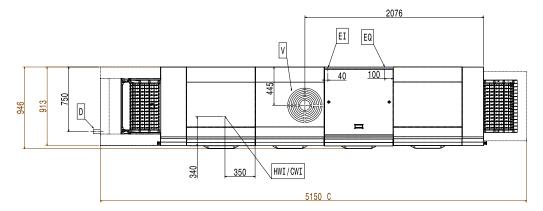


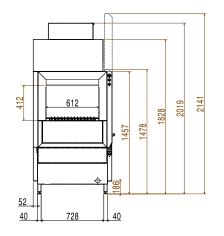


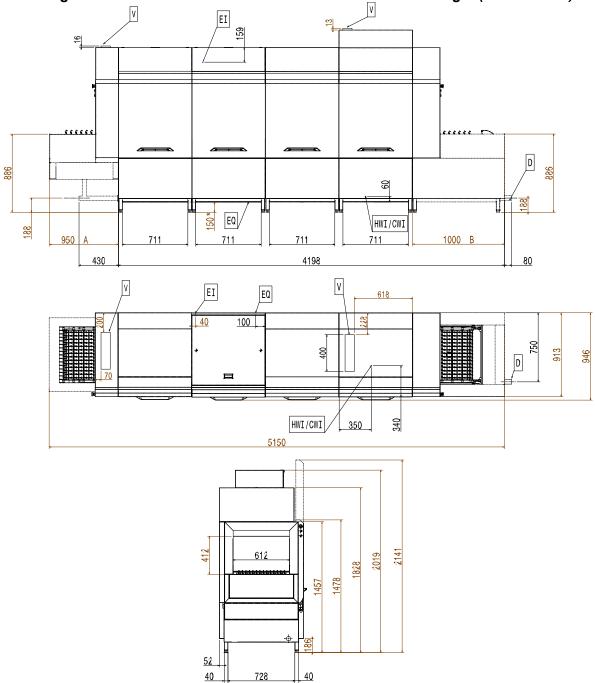


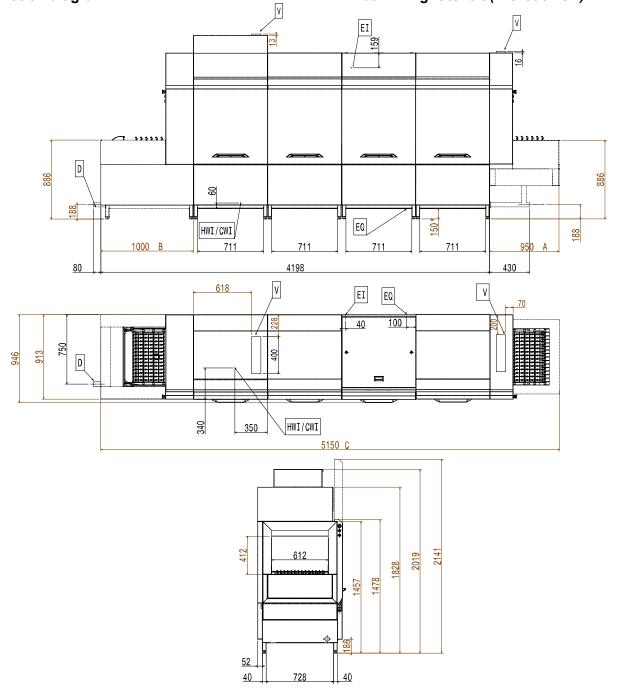


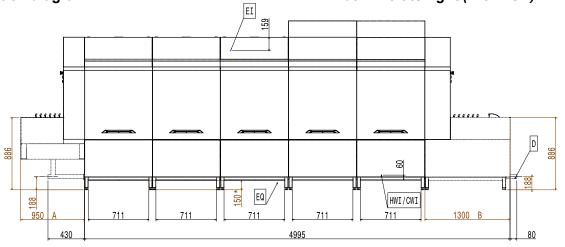


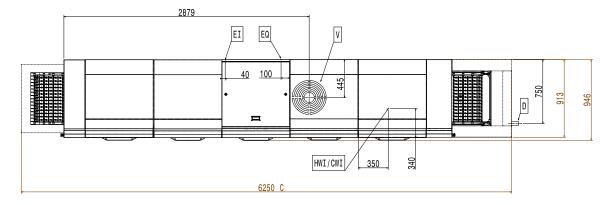


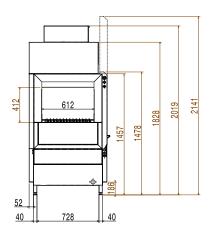


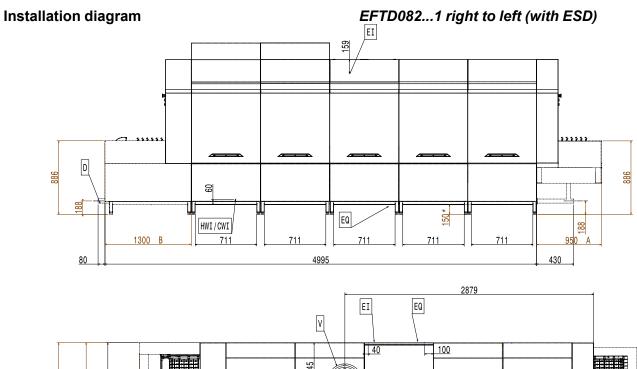


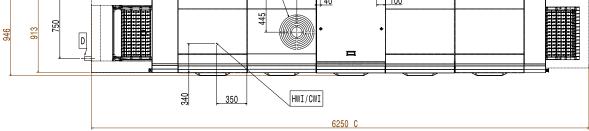


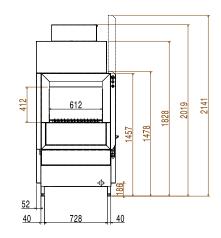


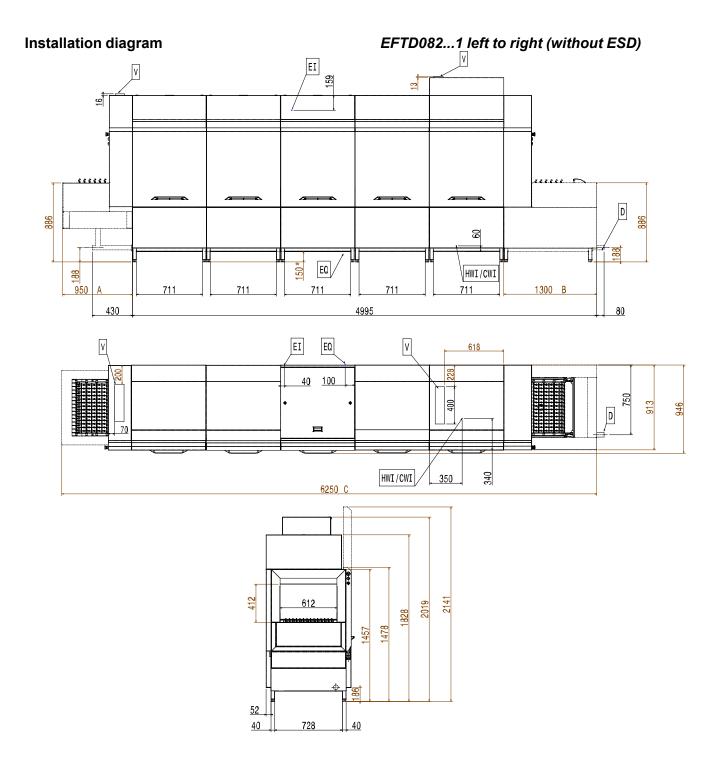


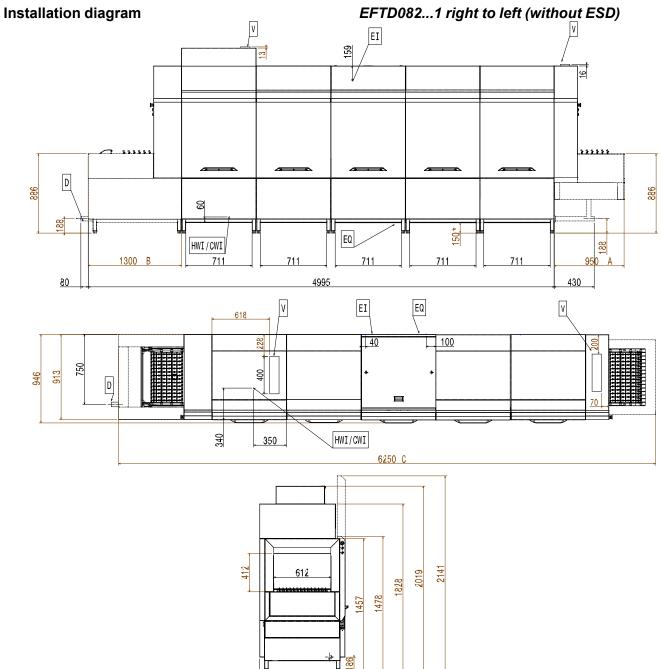










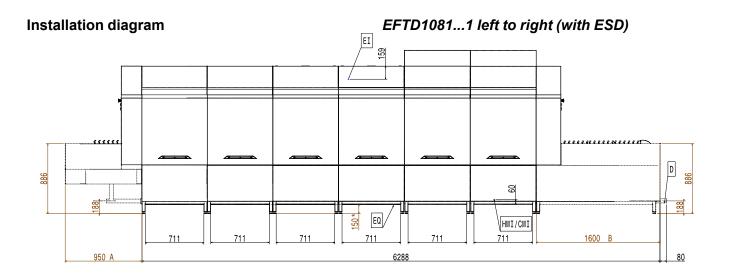


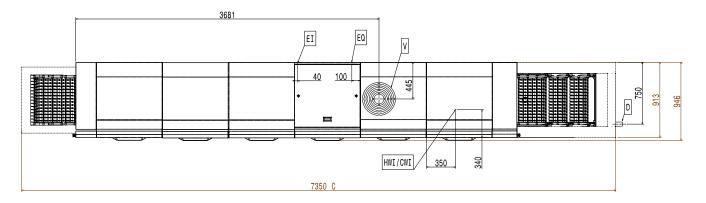
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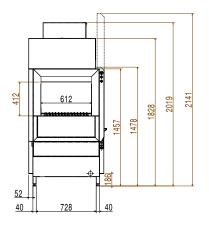
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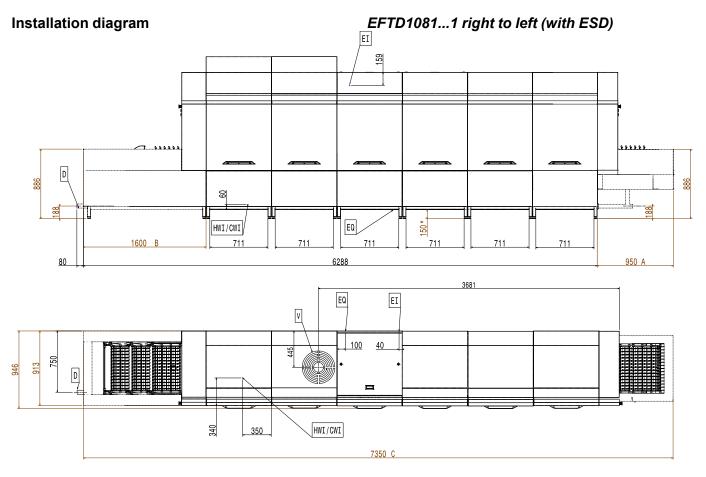
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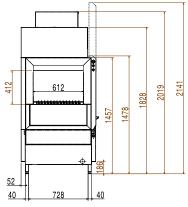
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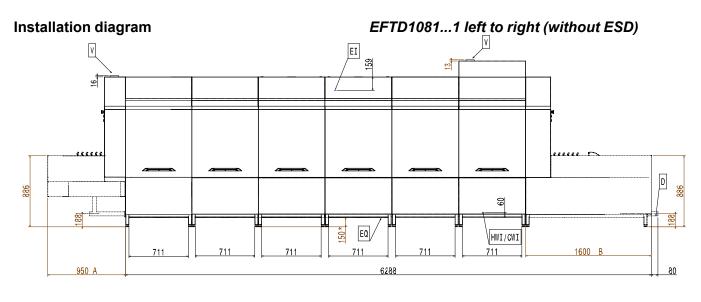


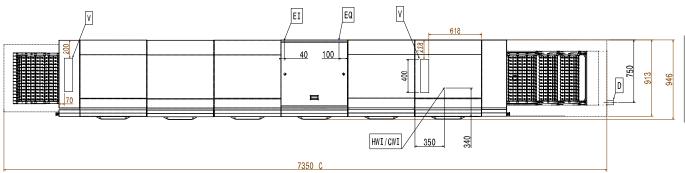


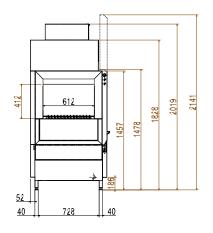


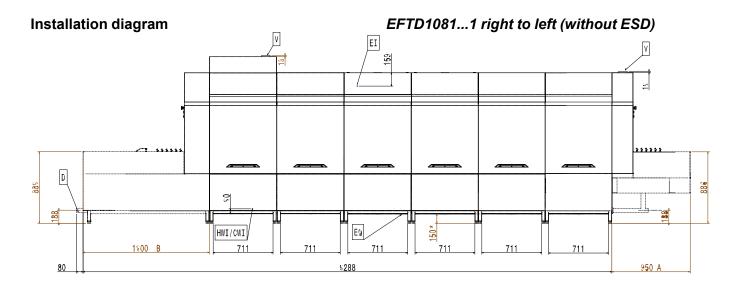


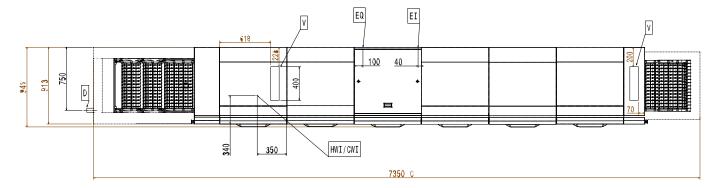


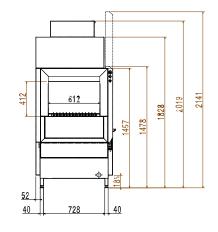












CWI = Cold water inlet pipe [3/4"]HWI = Hot water inlet pipe [3/4"]D = Drain pipe $[\emptyset = 2"]$ EI = Electrical inlet EQ = Equipotential screw V = Vents * = Adjustable feet [100~180 mm] The installation, use and maintenance manual (hereinafter Manual) provides the user with information necessary 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

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 machine 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 machine.
 - 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 or tamper with the machine's safety devices.
- Before carrying out any machine installation, always consult the installation manual, which gives the correct procedures and contains important information on safety.
- Unauthorized personnel must not enter the work area.
- Remove any flammable products or items from the work area.

 Machine positioning, installation and disassembly must be carried out by the specialised personnel in conformity with the current safety regulations, regarding the equipment used and the operating procedures.

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		
				00	\bigcirc		
Transport		•	0	—	0		
Handling	•	•	0	—	—		
Unpacking	0	•	0	—	—		
Installation	0	•	• ¹		—		
Normal use	•	•	●2	0	—		
Adjustments	0	•					
Routine cleaning	0	•	● 1-3	0	—		
Extraordi- nary cleaning	0	•	● ¹⁻³	0	_		
Maintenance	0	•	0		—		
Dismantling	0	•	0	0	—		
Scrapping	0	•	0	0	—		
Key:							
•	PPE REQUIRED						
0	PPE AVAILABLE OR TO BE USED IF NECESSARY						
—	PPE NOT REQUIRED						

- 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).
- 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).
- 3. 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 Transport, handling and storage

- Due to their size, the machines cannot be stacked on top of each other during transport, handling and storage; this eliminates any risks of loads tipping over due to stacking.
- Do not stand under suspended loads during loading or unloading operations. Unauthorized personnel must not enter the work area.
- The weight of the appliance alone is not sufficient to keep it steady.
- For machine lifting and anchoring, do not use movable or weak parts such as: casings, electrical raceways, pneumatic parts, etc.

- Do not push or pull the machine to move it, as it may tip over. Use proper tool to lift the machine.
- Machine transport, handling and storage personnel must be adequately instructed and trained regarding the use of lifting systems and personal protection equipment suitable for the type of operation carried out.

A.5 Installation and assembly

- Follow the installation instruction supplied with the machine.
- Do not install a damaged machine. Any missing or faulty parts must be replaced with original parts.
- Do not make any modifications to the parts supplied with the machine.
- Disconnect the machine from the power supply before carrying out any installation procedure. Connect the machine to the power supply only at the end of the installation.
- The machine is not suitable for installation outdoors and/or in places exposed to atmospheric agents (rain, direct sunlight, freeze, humid and dusty location, etc.).
- Do not install the machine over 2000 meters above sea level.
- Make sure that the floor where you install the machine is flat, stable, heat resistant and clean.
- Use a ladder with suitable protection for work on machines with high accessibility.

A.6 Water connection

- The plumbing connections must be carried out by a specialised personnel.
- The machine is to be connected to the water mains using the new supplied hose-sets. Do not use old hose sets.
- Always use a new set of joints if you remove and re-install the water inlet pipe to the machine.
- Before connection to new pipes, pipes not used for a long time, where repair work has been carried out or new devices fitted (water meters, etc.), let the water flow until it is clean and clear.
- 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.
- Install an approved dual check valve upstream according to the regulation of the installation country.

A.7 Electrical connection

- Work on the electrical systems must only be carried out by a specialised personnel.
- Make sure that the electrical information on the rating plate agrees with the power supply.
- Make sure to install the machine in accordance with the safety regulations and local laws of the country where used.
- 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.
- The machine must be correctly earthed. The manufacturer is not responsible for the consequences of an inadequate earthing system.
- If present, connected the machine to the equipotential protection circuit \heartsuit .
- To protect the power supply of the machine against short circuits and/or overloads, install a thermal fuse or a suitable automatic thermal magnetic circuit breaker, ADS (Automatic Disconnection of Supply).

- To protect the power supply of the machine against current leakages, install a highsensitivity manual reset RCD (Residual Current Device), suitable for overvoltage category III.
- For protection against indirect contacts (depending on the type of supply provided for and connection of earths to the equipotential protection circuit ♦) refer to point 6.3.3 of EN 60204-1 (IEC 60204-1) with the use of protection devices that ensure automatic cut-off of the supply in case of isolation fault in the TN or TT systems or, for IT systems, the use of isolation controllers or differential current protection devices to activate automatic power disconnection (an isolation controller must be provided for indicating a possible first earth fault of a live part, unless a protection device is supplied for switching off the power in case of a such a fault. This device must activate an acoustic and/or visual signal which must continue for the entire duration of the fault). For example: in a TT system, a residual current device with cut-in current (e.g. 30 mA) coordinated with the earthing system of the building where the machine is located must be installed ahead of the supply.
- Make sure to install an emergency switch at the infeed and outfeed of the rack-type dishwasher. For all additional modules installed later, move the emergency switch at the ends of the equipment.
- For all the additional modules installed later, make sure that the power cable supply is properly sized.

A.8 Service

• Only original spare parts can ensure the safety standards of the appliance.

A.9 Disposal of packing

• Dispose of each packaging items respecting the current regulation in the country of installation.

A.10 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 WARRANTY

B.1 Warranty terms and exclusions

If the purchase of this product includes warranty coverage, warranty is provided in line with local regulations and subject to the product 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 documentation made available in paper or electronic format. Electrolux Professional strongly recommends using Electrolux Professional approved cleaning, rinse and descaling agents to obtain optimal results and maintain product efficiency over time.

The Electrolux Professional warranty does not cover:

- · service trips cost to deliver and pick up the product;
- installation;
- training on how to use/operate;

- replacement (and/or supply) of wear and tear parts unless resulting from defects in materials or workmanship reported within one (1) week from the failure;
- · correction of external wiring;
- correction of unauthorized repairs as well as any damages, failures and inefficiencies caused by and/or resulting from;
 - insufficient and/or abnormal capacity of the electrical systems (current/voltage/frequency, including spikes and/or outages);
 - inadequate or interrupted water supply, steam, air, gas (including impurities and/or other that does not comply with the technical requirements for each machine);
 - plumbing parts, components or consumable cleaning products that are not approved by the manufacturer;
 - customer's negligence, misuse, abuse and/or non-compliance with the use and care instructions detailed within the appropriate equipment documentation;
 - improper or poor: installation, repair, maintenance (including tampering, modifications and repairs carried out by third parties not authorized third parties) and modification of safety systems;
 - Use of non-original components (e. g.: consumables, wear and tear, or spare parts);

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 trans- port personnel.
Manufacturer	Electrolux Professional SpA or any other service centre authorised by Electrolux Professional SpA.
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, experi- ence 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 elec- tronics 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 elimi- nates or reduces the risk; it can be used alone or in combination with a guard.

- environment conditions provoking thermal (e.g. overheating/freezing) or chemical (e.g. corrosion/oxidation) stress;
- foreign objects placed in- or connected to- the product;
- accidents or force majeure;
- transportation and handling, including scratches, dents, chips, and/or other damage to the finish of the product, unless such damage results from defects in materials or workmanship and is reported within one (1) week of delivery unless otherwise agreed;
- product with original serial numbers that have been removed, altered or cannot be readily determined;
- replacement of light bulbs, filters or any consumable parts;
- any accessories and software not approved or specified by Electrolux Professional.

Warranty does not include scheduled maintenance activities (including the parts required for it) or the supply of cleaning agents unless specifically covered within any local agreement, subject to local terms and conditions.

Check on Electrolux Professional website the list of authorized customer care.

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 pre- vents 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:

Dishwas					sher
F.Mod. EFTD)64E2		Туре	EFT064HO	
PNC 520138					
Comm.Model	EFTD064EL3U	J1D2FE	R38		
Serial	85100001				
EL. 380V 3N 50 Hz 46.5 KW					Class I
Max. permissit	600 kPa				
Max. permissit	60 °C				

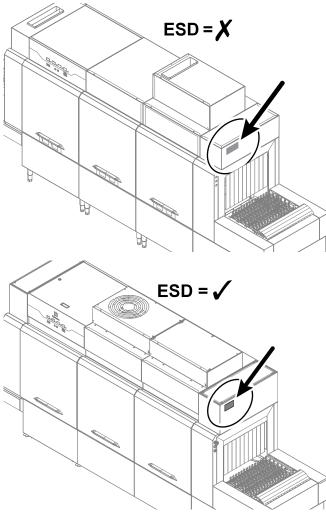
The dataplate gives the product identification and technical data; listed below is the meaning of the various information given on it.

F.Mod.	factory description of product
Comm.Model	commercial description
PNC	production number code
Ser.No.	serial number
380-415V 3N~	power supply voltage
220V 3~	electric convertibility
50 or 60	power supply frequency
46.5 kW	max. power
60°C	max water temperature
600 kPa [6 bar]	max water pressure

IPX4 dust and water protection rating Electrolux (Shanghai) manufacturer

Professional Appliance Co, Ltd

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.



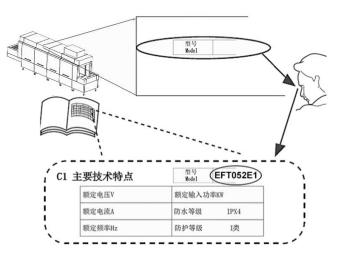
NOTE!

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 E.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)
Е	FTD	052	Е	1
Е	FTD	082	S	1
E	FTD	1081	ш	1
E	FTD	108	Ш	1
E	FTD	1081	S	1
E	FTD	108	S	1

Variable description

(1) Brand	E = Electrolux
(2) Machine type	FTD = Flight Type Dishwasher
(3) Dishes/hour	052 = 5200 dishes/hour
(-)	064 = 6400 dishes/hour
	082 = 8200 dishes/hour
	108 = 10800 dishes/hour
(4) Supply	E = electric
	S = steam
(5) Drying unit	1 = one dryer
	2 = two dryers

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.

D PRODUCT OVERVIEW

D.1 Modules list

The excellent modular design includes:

- A. inlet module;
- B. pre-wash module;
- C. wash module;
- D. rinse module;
- E. drying module;
- F. outlet module.

(the maximum configuration has one pre-wash module, three wash modules, two rinse modules and a drying module.

The composition can be selected as required. (Make sure to specify when ordering).

Stainless steel insulated wash tank, wash chambers and low-flow rotating rinse system, efficiently save energy and reduce operating costs.

The standard large insulated door provides easy access to clean and maintain the inside.

Two conveyor speed are available for operators to adjust the transporting speed depending on the dirt degree and variety of cutlery and tableware.

Steam heating and electric heating are available for "EFTD" series dishwasher. (Make sure to specify when ordering).

Equipped with a built-in electric or steam heating device (27 KW or 18 KW) to help you select according to feeding water temperature and energy conditions (Make sure to specify when ordering).

C.7 Keeping the manual

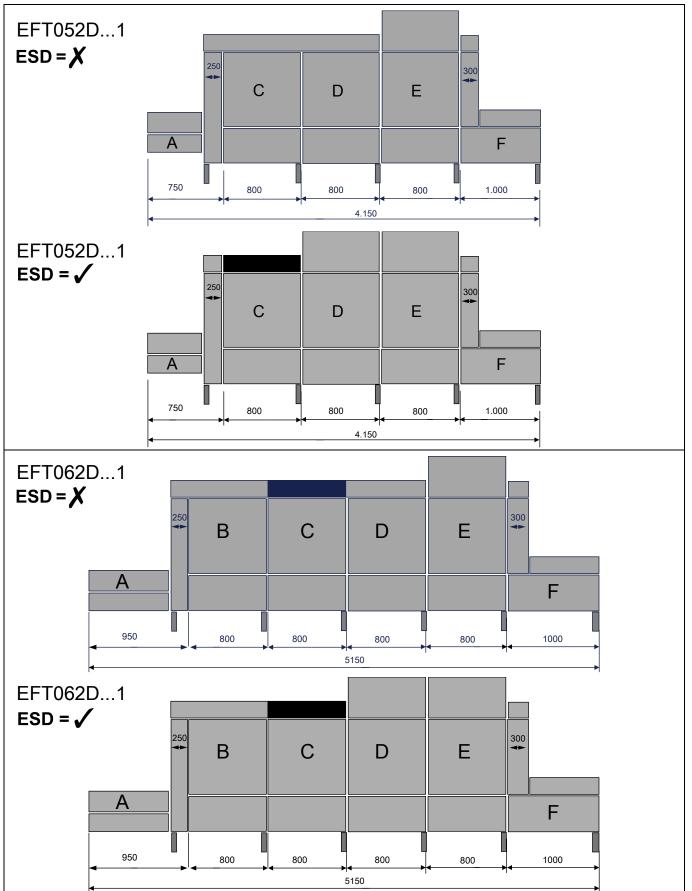
The manual must be carefully kept for the entire life of the machine, until scrapping. The manual must stay with the machine in case of transfer, sale, hire, granting of use or leasing.

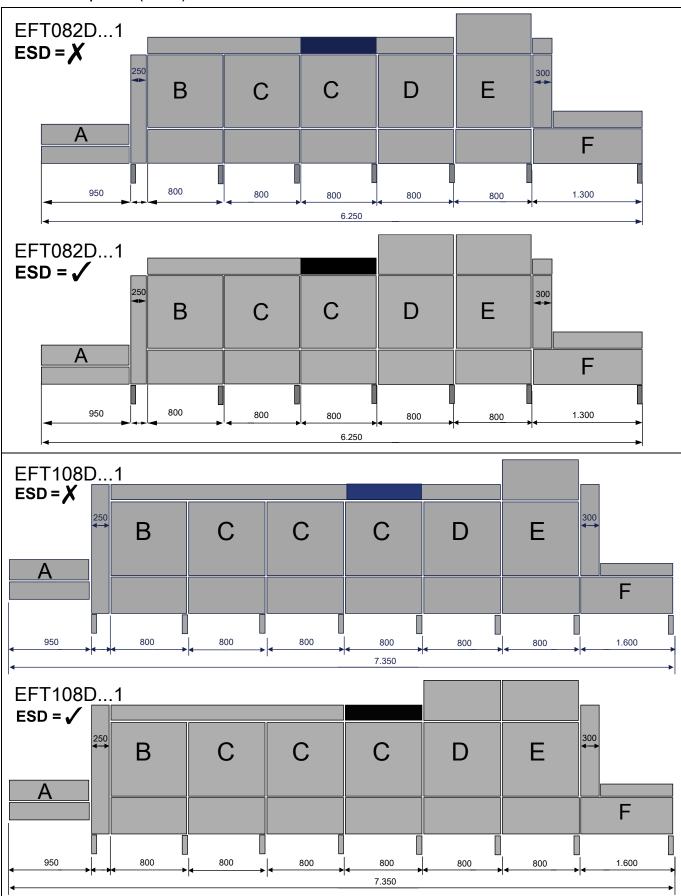
C.8 Recipients of the manual

This manual is intended for:

- · the carrier and handling personnel;
- installation and commissioning personnel;
- specialised personnel Customer Care service (see service manual).

Modules composition





Modules descriptions

Α	Inlet	3 optional lengths	1	750 mm
			2	950 mm
			3	1100 mm
В	Prewash section	Optional module	Р	800 mm

Modules descriptions (cont'd.)

С	Wash section	3 optional lengths	1	800 mm
				1600 mm
			3	2400 mm
D	Rinse section	Rinse module	R	800 mm
D	Rinse section	Rinse module	R	800 mm
E	Dryer section	Optional module	D	800 mm
F	Outlet section	5 optional lengths	1	1000 mm
			2	1300 mm
			3	1600 mm
			4	1900 mm
			5	2200 mm

Е **TECHNICAL DATA**

E.1 Main technical characteristics

Electrical models

Model		EFTD052E1	EFTD064E1	EFTD082E1	EFTD108E1
Three phases voltage	V	380-415V 3N~	380-415V 3N~	380-415V 3N~	380-415V 3N~
Convertible to	V	220V 3~	220V 3~	220V 3~	220V 3~
Frequency	Hz	50 or 60 ¹			
Maximum absorbed power [NO ESD] ²	KW	46.5	48.5	76	93.5
Maximum absorbed power [ESD] ³	KW	42.7	44.7	66.7	87.7
Boiler heating power	KW	9x2 ⁴	9x2 ⁴	9x3 ⁴	9x3 ⁴
Boiler heating power	KW	7x2 ⁴	7x2 ⁴	9x2 ⁴	7x3 ⁴
Wash tank heating power	ĸw	8x2 [1 tank]	8x2 [1 tank]	8x2 [2 tanks]	8x2 [3 tanks]
Prewash pump power	KW	-	2	2	2
Wash pump power	ĸw	2 [1 tank]	4 [2 tanks]	6 [3 tanks]	8 [4 tanks]
Dryer heating power	KW	9	9	9	9
Inlet water pressure	Kpa [bar]	100 kPa [1 bar] 600 kPa [6 bar]			
Inlet water hardness	°fH [°dH]	14 [8]	14 [8]	14 [8]	14 [8]
Concentration of chlorides in water	ppm	<20	<20	<20	<20
Inlet water conductivity	mS/cm	<400	<400	<400	<400
Cold water supply temper- ature for model without ESD	°C	10-65	10-65	10-65	10-65
Cold water supply temper- ature for model with ESD	°C	10-30⁵	10-30⁵	10-30⁵	10-30 ⁵
Hot water supply temperature	°C	50-65 ⁶	50-65 ⁶	50-65 ⁶	50-65 ⁶
Rinse water consumption	l/h	210	210	280	320
Boiler capacity	I	23	23	23	23
Tank capacity	I	92 1 tank	196 2 tanks	294 3 tanks	392 4 tanks
Speed 1		1.0	1.4	2.0	2.7
Speed 2	m/min	1.6	2.0	2.6	3.3
Noise level	dB(A)	<70	<70	<70	<70
Protection level		IPX4	IPX4	IPX4	IPX4

Appliances with 50 Hz or 60 Hz power frequency can be selected. For appliance without Energy Saving Device 1. 2.

Electrical models (cont'd.)

- 3. 4. 5. 6.
- For appliance with Energy Saving Device If the inlet water temperature is higher than 45°C, reduce the boiler heating power of 9 KW. Recommended cold water supply temperature 10°C Recommended hot water supply temperature 50°C.

Steam Models

Model		EFTD052S1	EFTD064S1	EFTD082S1	EFTD108S1
Three phases voltage	V	380-415V 3N~	380-415V 3N~	380-415V 3N~	380-415V 3N~
Convertible to	V	220V 3~	220V 3~	220V 3~	220V 3~
Frequency	Hz	50 or 60 ¹			
Maximum absorbed power	КW	3.5	5.5	7.5	9.5
Maximum absorbed power	KW	3.7	5.43	7.7	9.68
Prewash pump power	KW	-	2	2	2
Wash pump power	KW	2 [1 tank]	4 [2 tanks]	6 [3 tanks]	8 [4 tanks]
Boiler heating power	KW	/	/	/	/
Water tank heating power	KW	/	/	/	/
Dryer heating power	KW	1	1	1	/
Inlet water pressure	Kpa [bar]	100 kPa [1 bar] 600 kPa [6 bar]			
Inlet water hardness	°fH [°dH]	14 [8]	14 [8]	14 [8]	14 [8]
Concentration of chlorides in water	ppm	<20	<20	<20	<20
Inlet water conductivity	mS/cm	<400	<400	<400	<400
Cold water supply temper- ature for model without ESD	°C	10-65	10-65	10-65	10-65
Cold water supply temper- ature for model with ESD	°C	10-30 ²	10-30 ²	10-30 ²	10-30 ²
Hot water supply temperature	°C	50-65 ³	50-65 ³	50-65 ³	50-65 ³
Rinse water consumption	l/h	210	210	280	320
Boiler capacity	I	23	23	23	23
Tank capacity	I	92 1 tank	196 2 tanks	294 3 tanks	392 4 tanks
Speed 2	- m (m):-	1.0	1.4	2.0	2.7
Speed 1	m/min	1.6	2.0	2.6	3.3
Noise level	dB(A)	<70	<70	<70	<70
Steam consumption	kg/h	75	75	88	101
Steam pressure	Kpa [bar]	100-300 [1-3]	100-300 [1-3]	100-300 [1-3]	100-300 [1-3]
Protection level	1	IPX4	IPX4	IPX4	IPX4

Appliances with 50 Hz or 60 Hz power frequency can be selected. Recommended cold water supply temperature 10°C Recommended hot water supply temperature 50°C.

1. 2. 3.

Productivity table

Models		EFTD0521	EFTD0641	EFTD0821	EFTD1081
Speed 1	Productivity	3200	4500	6400	8600
Speed 2	[dish/h]	5200	6400	8200	10800

Main ON/OFF switch (residual current circuit breaker)							
Max power [KW]		2-6	30-36	53-60	61-67	68-87	88-110
С	220V	25A	125A	200A	225A	300A	350A
	380V	16A	63A	125A	125A	160A	200A

Power supply cable						
Max power [KW]	2-6	36	37-42	43-69	70-85	86-108
S	YJV3*2.5 +2*1.5	YJV3*6+2*4	YJV3*16+2*10	YJV3*25+2*16	YJV3*35+2*16	YJV3*50+2*25

E.2 Characteristics of power supply

The AC power supply to the machine must meet the following conditions:

• max. voltage variation ± 6%

• max. frequency variation ± 1% continuous ± 2% for a short period.

Harmonic distorsion, unbalanced three-phase supply voltage, voltage pulses, interruption, dips and the other electric characteristics must respect the provisions of point 4.3.2 of Standard EN 60204-1 (IEC 60204-1).

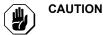
F TRANSPORT, HANDLING AND STORAGE

WARNING

Refer to "Safety Information".

F.1 Introduction

Transport (i. e. transfer of the machine from one place to another) and handling (i. e. transfer inside workplaces) must occur with the use of special and adequate means.



/

The machine must only be transported, handled and stored by specialised personnel, who must have:

- specific technical training and experience in the use of lifting systems;
- knowledge of the safety regulations and applicable laws in the relevant sectors;
- · knowledge of the general safety rules;
- personal protection equipment suitable for the type of operation carried out;
- the ability to recognize and avoid any possible hazard.

F.2 Transport: Instructions for the carrier

IMPORTANT

The transported load can shift:

- · when braking;
- · when accelerating;
- in corners;
- on rough roads.

F.3 Handling

Arrange a suitable area with flat floor for machine unloading and storage operations.

F.3.1 Procedures for handling operations Before lifting:

- send all operators to a safe position and prevent persons from entering the handling area;
- make sure the load is stable;
- make sure no material can fall during lifting. Manoeuvre vertically in order to avoid impacts;

handle the machine, keeping it at minimum height from the ground.

For correct and safe lifting operations:

- use the type of equipment most suitable for characteristics and capacity (e.g. electric pallet truck or lift truck);
- cover sharp edges;
- check the forks and lifting procedures according to the instructions given on the packing.

F.3.2 Shifting

The operator must:

- have a general view of the path to be followed;
- · stop the manoeuvre in case of hazardous situations.

F.3.3 Placing the load

- Before placing the load, make sure the way is free and that the floor is flat and can take the load.
- Remove the appliance from the wooden pallet, move it to one side, then slide it onto the floor.

F.4 Storage

The machine and/or its parts must be stored and protected from damp, in a non-aggressive place, free of vibrations and with room temperatures between $-10^{\circ}C$ [14°F] and 50°C [122°F].

The place where the machine is stored must have a flat support surface to avoid deforming the machine or damage to the support feet.



Do not make modifications to the parts supplied with the appliance. Any missing or faulty parts must be replaced with original parts.

F.5 Unpacking

IMPORTANT



Immediately check for any damage caused during transport.

Inspect the packaging before and after unloading.

- Remove the packaging. Take care when unpacking and handling of the appliance to not cause any shocks on itself.
- 2. Keep all the documentation contained in the packaging.

Note

- The forwarder is responsible for the goods during transport and delivery.
- Make a complaint to the forwarder in case of visible or hidden damage.
- · Specify any damage or shortages on the dispatch note.

G INSTALLATION AND ASSEMBLY

WARNING Refer to "Safety Information".

G.1 Customer responsibilities

The Customer must provide for the following:

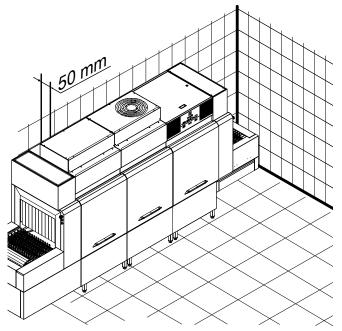
- installation of an adequate electrical power supply ahead of the appliance, according to the equipment's technical specifications (E.1 Main technical characteristics and E.2 Characteristics of power supply);
- the equipotential connection [∀] of the workplace electrical system to the metal structure of the machine by means of a copper cable of adequate section (see position "EQ" in *Installation diagram*);
- adducting for the electrical connection between the workplace electric panel and the equipment;
- the water supply and drain connections and other connections as indicated in E.1 *Main technical characteristics* and in the paragraph G.6 *Plumbing connections*;

G.2 Machine space limits

- A suitable space must be left around the machine (for operations, maintenance, for a correct air exchange, etc.).
- This space must be increased in case of use and/or transfer of other equipment and/or means or if exit routes are necessary inside the workplace.

CAUTION

Install the machine at a distance of not less than 50 mm from the wall so as not to affect correct ventilation of internal components.



G.3 Extraction hood

The extractor hood is installed to remove the steam emitted by the machine.

- The driver must sign the dispatch note: the forwarder can reject the claim if the dispatch note is not signed (the forwarder can provide the necessary form).
- For hidden damage or shortages becoming apparent only after unpacking, request the forwarder for inspection of the goods within and no later than 15 days after delivery.
- Make sure to position the possible extraction hood at a distance of not less than 400 mm from the machine so as not to compromise machine operation.
- The hood air delivery must be calculated taking into account the machine model, the type of installation and the work environment where installed.

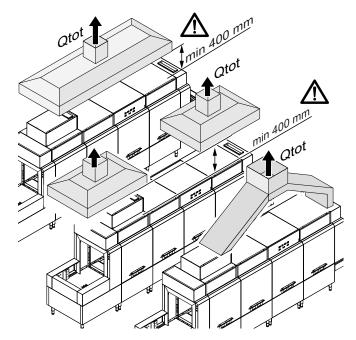


Fig. 1 Without ESD

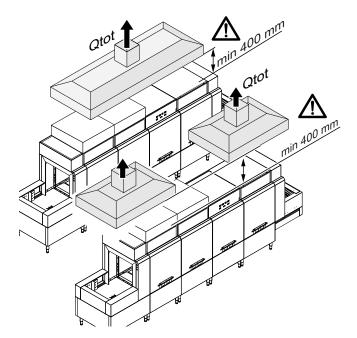


Fig. 2 With ESD

Model	Qtot (VDI2052)
EFTD0521	1500 m³/h
EFTD0641	1700 m³/h
EFTD0821	1900 m³/h
EFTD1081	2000 m³/h



NOTE! General ventilation for the room should be still provided in accordance with "UNI ISO EN 7730" norm, "VDI2052" guideline and "DW/172 UK" or local regulation.

G.4 Mechanical connection



NOTE! Make sure that the room temperature where you install the machine must be at least 18°C [64.5°F].

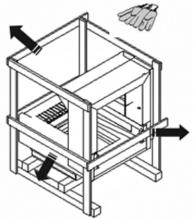


IMPORTANT

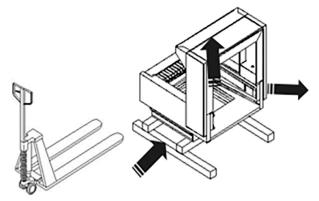
Do not place the dishwasher near hot sources such as fryers, ovens, or hotplates.

Arrange the modules of the machine:

• Wear protective gloves and unpack the modules of the machine.



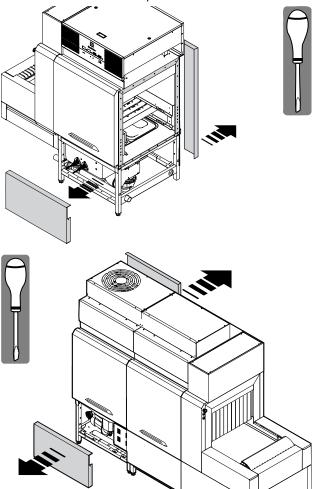
• Only when the modules are in the right position and sequence, remove the wooden pallet.



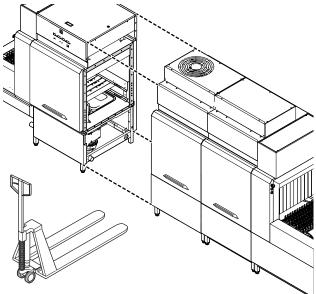
Join the modules

•

• Remove the front and back panels of each modules.

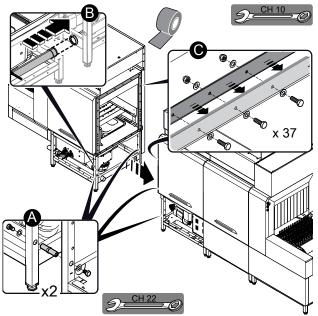


Use a lift truck to position each module in the required position.

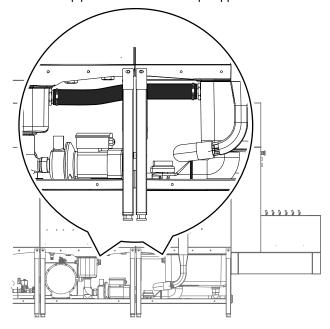


- Place the first module near the second and join them with the special spacers and the respective screws and washers (see detail "A").
- Join also the drain hoses of each modules (see detail "B").
- Make sure the modules are correctly aligned. Adjust the modules by turning the special adjustable feet. If necessary use a pallet trucks to make easy this operation.

 Fit the adhesive seal all around each module opening. Join the openings of the modules with the bolts, washer and nuts (see detail "C").



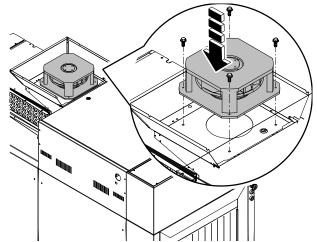
• Depending on the model, connect the overflow hoses between the wash tank or tanks and the rinse tank. Secure the pipe with the metal clamp supplied.



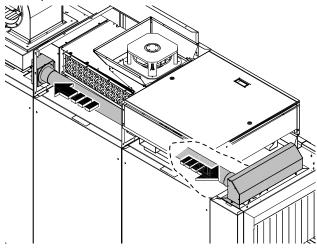
Install the energy saving device [ESD] and connect it to the vent

Remove the upper and the back panels.

• Install the energy saving device [ESD] on the top of the appliance.

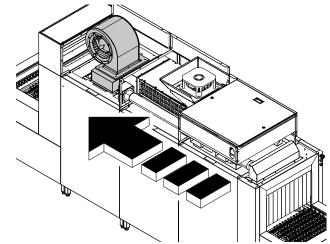


- Connect the vent placed in the inlet module with the one placed in the energy saving device [ESD].
- · Use the plastic hose provided with the dishwasher.
- · Fit the plastic hose in the inlet vents.



Install the dryer fan

- · Remove the upper and the back panels of the dryer module.
- Check the feeding direction and then install the dryer fan.
- Always install the fan housing in the feeding direction.

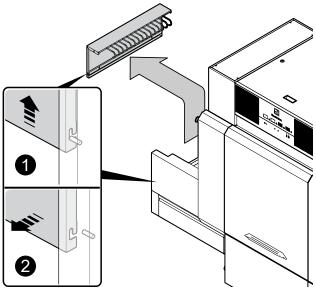


Install the conveyor belt

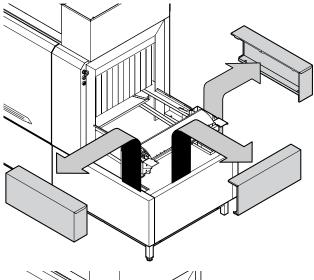


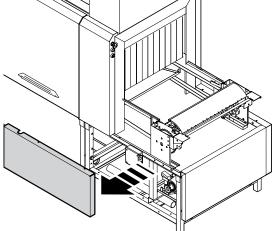
IMPORTANT

Make sure that all connection points on the guide rails of the conveyor belt are in line with each other. This avoids any jamming of the conveyor belt itself. • Remove the front and the side panel from the loading module.

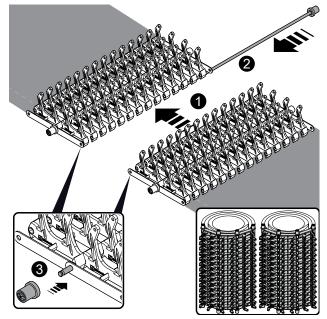


 Remove all upper panels and lower front panel from the unloading module.



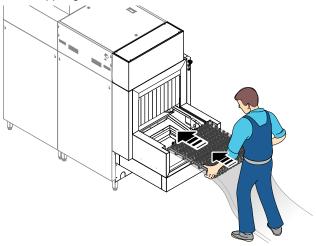


• Join all separated pieces of the conveyor belt all together.



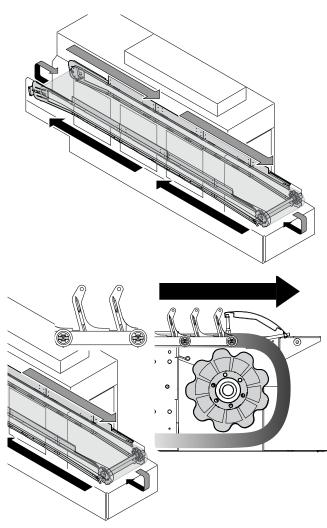
Insert the conveyor belt from the loading module by sliding it on the upper guide rails.

•

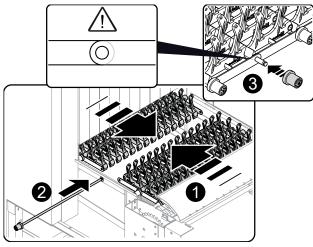


• From the loading module, insert the conveyor belt by sliding it on the lower guide rails.

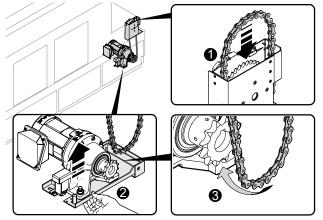




· Join the beginning and the end of the conveyor belt.



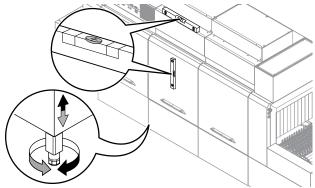
 Remove the lower panel of the unloading module and connect the conveyor belt with the motor.



- Check the tension of the conveyor belt and, if necessary, adjust it.
- Refit all panels previously removed.

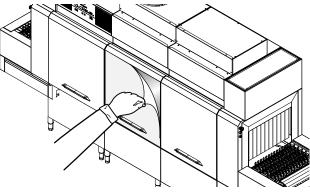
Level the machine

 Adjust the equipment by turning the special adjustable feet. Make sure it is perfectly level, both length wise and crosswise.



Remove protective film

• Carefully remove the protective film from the outer plate without tearing it, to avoid leaving traces of glue.



G.5 Disposal of packing

The packing must be disposed of in compliance with the current regulations in the country where the appliance is used. All the packing materials are environmentally friendly.

They can be safely kept, recycled or burned in an appropriate waste incineration plant. Recyclable plastic parts are marked as follows:

PE	PolyethyleneOuter wrappingInstructions bag
PP	Polypropylene • Straps
PS	Polystyrene foamCorner protectors

The parts in wood and cardboard can be disposed of, respecting the current regulations in the country where the machine is used.

G.6 Plumbing connections



IMPORTANT

Watermark labelled appliances must be installed in accordance with AS/NZS 3500.1 and drainage to be in accordance with 3500.2.

Install the machine water inlets and drain pipes according to the plumbing circuit and installation diagrams.

If the water pressure is:

- more than600 kPa [6 bar], a pressure reducing valve must be installed on the inlet pipe. The supply water temperature is related to the machine setup;
- is less than 100 kPa [1 bar], a booster pump must be installed ahead of the machine.

Water connection ISO 228/1 DN 20 (G3/4")

- Cold water inlet temperature for model with ESD:
 10-30°C
 - The recommended cold water temperature is: 10°C
- Cold water inlet temperature for model without ESD:
 10-65°C
- Hot water inlet temperature:
 - 50-65°C
 - The recommended hot water temperature is: 50°C
- Water inlet pressure:
 - 100 kPa [1 bar] 600 kPa [6 bar]



CAUTION

For every connection, installing a cut-off valve "B" and a pressure gauge "A" between the machine and the mains. Pay attention to seal every component in order to avoid any water leaks.

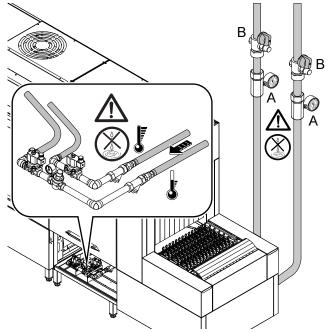


NOTE!

Connection pipes with anti-return/back flow protection and check valve and on/off valve are available as optional accessories.

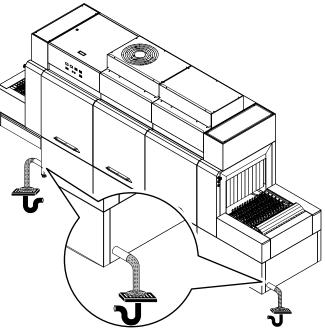
To ensure efficient machine operation, install a water treatment device on the dishwasher inlet connection piping if:

- the water hardness exceeds 14°fH/8°dH/10°eH (a water softener and/or a water demineralizer);
- the water concentration of chlorides in water exceeds 20 ppm (a reverse osmosis device).



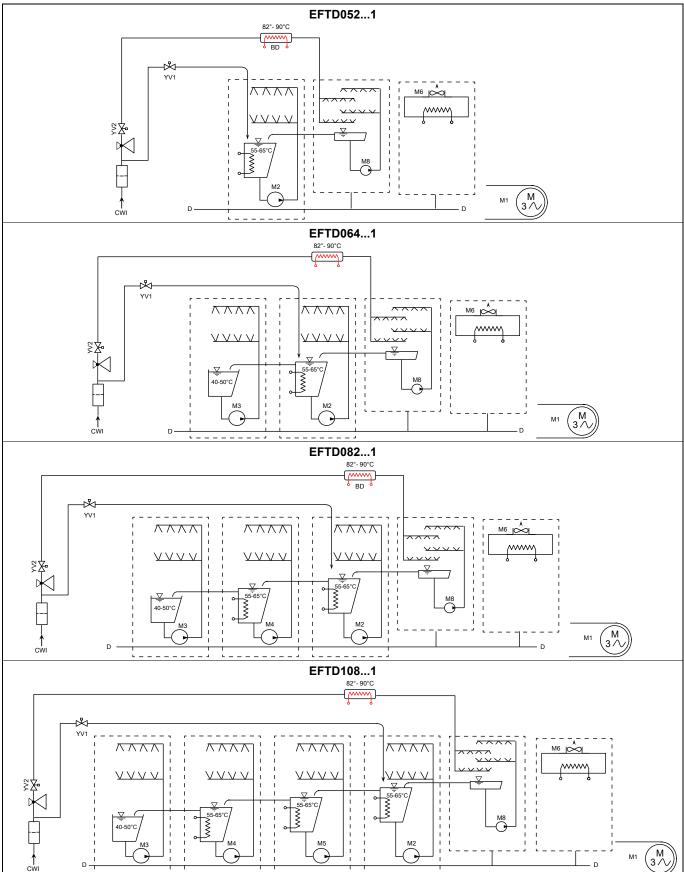
Drain outlet hose connection

Connect the drain outlet hose to the main drain pipe, fitting a trap, or place the outlet pipe over an "S" trap set into the floor.

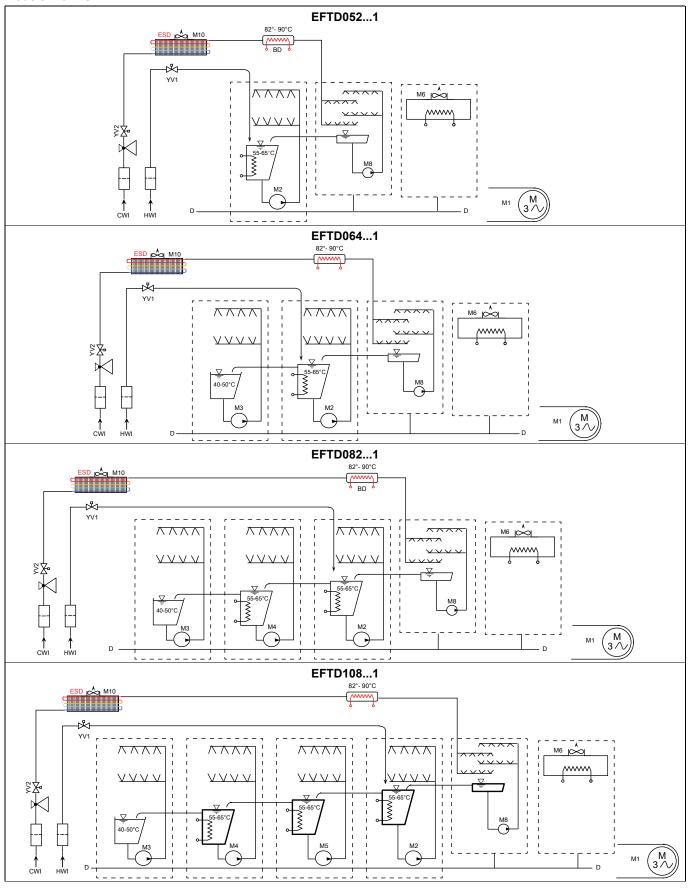


G.7 Plumbing circuits

Models without ESD



Models with ESD



LEGEND

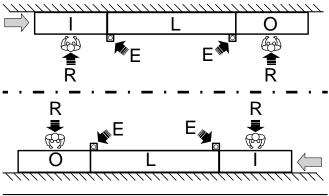
- CWI = Water inlet
- HWI = Water inlet
- D = Drain
- BD = Boiler
- M1 = Conveyor motor
- M2 = Wash pump
- M3 = Pre-wash pump

- M4 = Wash pump
- M5 = Wash pump
- M6 = Dryer blower
- M8 = Rinse pump
- M10 = ESD fun
- YV1 = Inlet solenoid valve
- YV2 = Rinse solenoid valve
- ESD = Energy saving device

G.8 Positioning of emergency switches

There is an emergency switch at the infeed and outfeed conveyor of the dishwasher that are clearly visible and identifiable and easily accessed by the operator who must use them.

Described below a diagram with the positions of the emergency switches and the operators during daily use.



"R"	Operator or work station
"L"	Dishwasher
"E"	Emergency switch
" "	Infeed conveyor
"O"	Outfeed conveyor

G.9 Installation of detergent/rinse aid dispensers

The machine is pre-configured for installation of detergent and rinse aid dispensing devices.

The dispensers must be installed in a way that does not compromise machine operation or safety.

The first time the machine is turned on, the dispenser should be manually activated and filled;

WARNING

Contact with chemical substances (e. g. detergent, rinse aid, scale remover, etc.) without taking appropriate safety precautions (e.g. personal protection equipment) can involve expochemical risk sure to and to damage possible health. Therefore always refer to the safety cards and labels on the products used.

Do not start the machine if the dispenser devices do not meet the safety requirements of "EC" Directives or current regulations in the country of use.



CAUTION

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

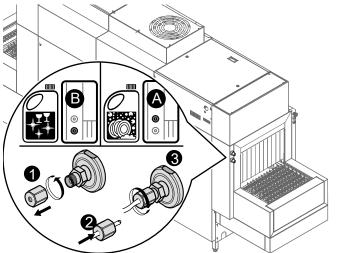
Detergent dispenser

• Connect the detergent pipe, coming from the external dispenser, to "A" (see below picture).

- Remove the cap plug;
- · Connect the dispenser hose to the injector;
- Insert the inlet hose of the detergent dispenser into the proper container.

Rinse aid dispenser

- Connect the detergent pipe, coming from the external dispenser, to "B" (see below picture).
- · Remove the cap plug;
- · Connect the dispenser hose to the injector;
- Insert the inlet hose of the rinse aid dispenser into the proper container.





IMPORTANT

The peristaltic dispensers (detergent and rinse aid) and the tube inside the rinse aid dispenser require periodical maintenance (at least once or twice a year) or after prolonged machine idle periods.

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.

G.10 Dispensers electrical connection

The electric box is equipped with a power connection terminal for external distributor that can be used for 220 V and rated current 3 A. The terminals are activated when the appliance is on.

Connect the power supply of the dispenser between terminals "401" and "2".

Detergent dispenser

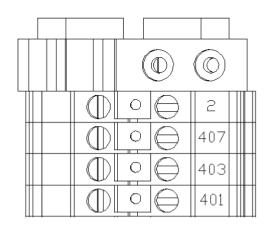
• Connect the power supply of the detergent dispenser between terminals "403" and "2".

These terminals will be activated during the wash phase.

Rinse aid dispenser

• Connect the power supply of the rinse aid between terminals "407" and "2".

These terminals will be activated during the rinse phase.



G.11 Changing the type of detergent/rinse aid

If changing to a different detergent/rinse aid type (even one by the same manufacturer), you must rinse the suction and pressure hoses with fresh water before connecting the new detergent/rinse-aid container.



CAUTION

Mixing of different types of detergent/ rinse-aid will cause crystallization, which may result in a breakdown of the dosing pump. Failure to observe this condition will invalidate the guarantee and product liability.

G.12 Electrical connections

WARNING

\triangle

Refer to "Safety Information".



CAUTION

The connection cable must be "H07RN-F" type, oil proof. Tighten the cables properly using a maximum torque of 6 Nm.

Make sure the machine power supply voltage specified on the data plate matches the mains voltage C.3 *Machine and Manufacturer's identification data*.

Make sure the system power supply is arranged and able to take the actual current load and that it is executed in a workmanlike manner according to the regulations in force in the country of use.

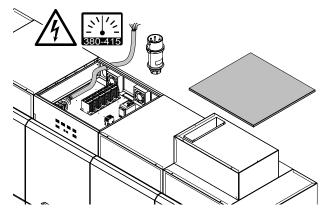
The earth wire from the terminal board side must be longer (max 20 mm) than the phase wires. Connect the power cable earth wire to an efficient earth.

The machine must also be included in an equipotential system, whose connection is made by means of screw EQ (see par.

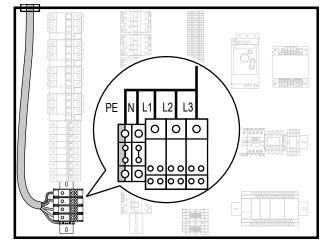
Installation diagram) indicated by the symbol \forall . The equipotential wire must have a section of at least 10 mm².

Connect the power cable to the equipment:

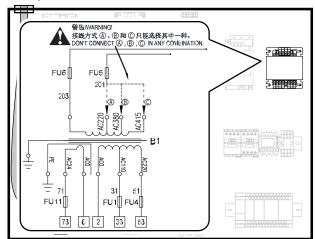
Remove the top panel and insert the power supply cable through the cable gland.



Connect the power supply cable to the terminal block.

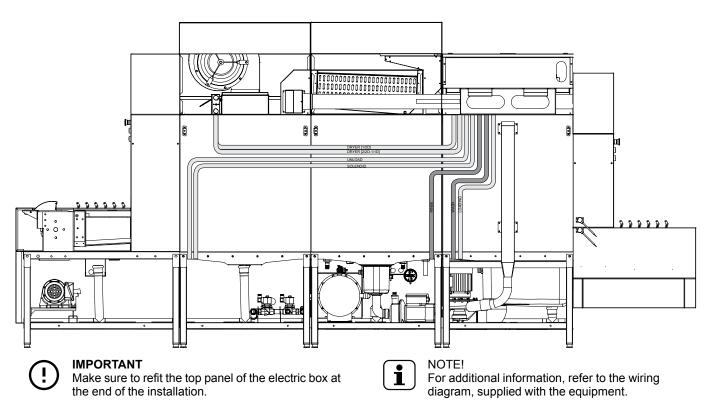


When the terminal block is connected with the power cable, check that the power supply voltage of each phases are the same. If not set the transformer with the right voltage. Refer to the picture below.



Connect the modules electrically:

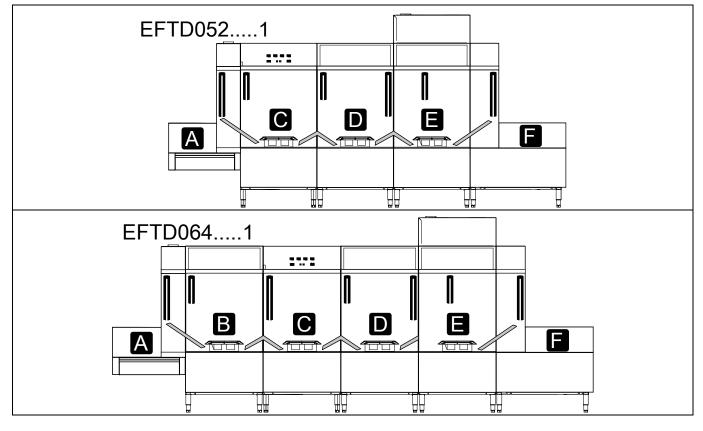
- Remove the back panels of each modules.
- Locate the coils of electrical cables of each modules.
- Refer the picture below to find the correct path to be followed for each electrical cables.
- Always consult the electrical wiring diagram to connect properly the electrical cables to the terminal board.

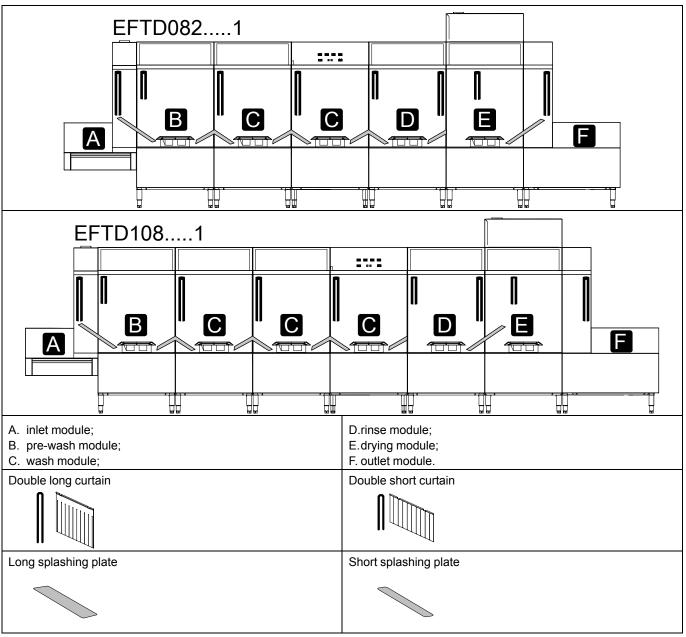


G.13 Fitting curtains

With the machine switched off and cold, fit the curtains and splashing plate as illustrated below.

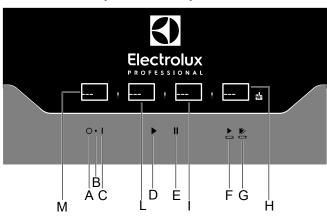
Curtains and splashing plate position





H CONTROL PANEL DESCRIPTION

H.1 Control panel description



Α	OFF button	
В	POWER light	
С	ON button	
D	START button	
E	PAUSE button	
F	SPEED 1 button	
G	SPEED 2 button	
Н	Boiler temperature display	
Ι	Wash temperature display of tank 1	
L	Wash temperature display of tank 2	
Μ	Wash temperature display of tank 3	

H.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	Press this button to switch the appliance on. The Power indicator light is on and the water start to fill the tanks. After some minutes also the tank heating elements start to warm the water. 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.
0	OFF button	Press the OFF button to switch the appliance off. The POWER indicator light is off.
	START button	Press this button to start the washing cycle.
	PAUSE button	Press this button to stop the washing cycle.
	Wash SPEED 1 button	Press this button to set the conveyor belt at the low speed. It is suitable for heavily soiled dishes.
	Wash SPEED 2 button	Press this button to set the conveyor belt at the high speed. It is suitable for normally soiled dishes.
	Wash tank temperature display	It shows the temperature of the water inside the wash tank.
the second se	Boiler temperature display	It shows temperature of the water inside the boiler.

I COMMISSIONING

I.1 Preliminary checks, adjustments and operational tests

Before starting the machine, check:

- 1. electrical and plumbing connections;
- 2. positioning of tank components;
- 3. washing and rinse arms position and fitting;
- 4. curtains position and fitting.

These operations must only be carried out by specialized technicians provided with adequate personal protection equipment (refer to A.3 *Personal protection equipment*), tools and suitable ancillary equipment with the machine switched off and cold.

I.2 Electrical and plumbing connection

Before starting the machine, check:

- 1. correct connection of the electrical wires that feed the machine;
- the power supply voltage and frequency match the data given in the technical data table (E.1 Main technical characteristics);
- 3. correct connection of the water supply and drain pipes (G.6 *Plumbing connections*);
- 4. guards, safety devices and emergency switches are in place and properly installed.

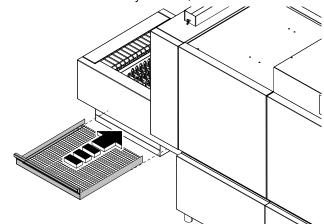
I.3 Fitting of filters and overflows



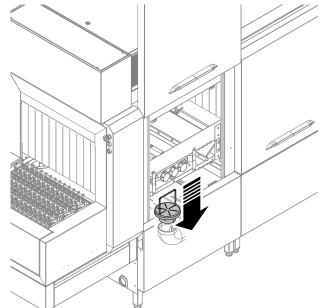
CAUTION The below operations must be performed when the machine is cold and switched off.

Make sure that:

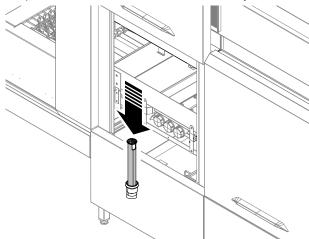
1. the inlet filter is correctly installed;



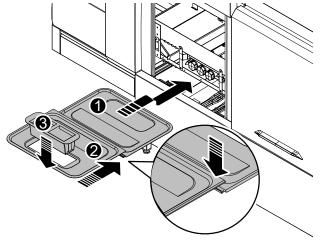
2. the filter of prewash and wash pump is correctly installed;



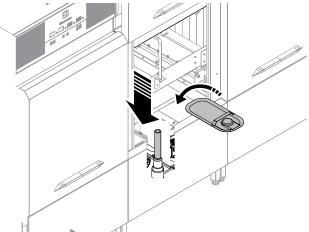
3. the prewash/wash tank overflows are correctly installed;



4. the prewash/wash tank filters are correctly installed;



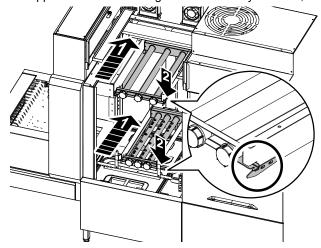
5. the filter and the overflow of the rinse tank are correctly installed.



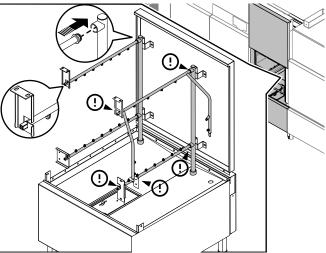
I.4 Fitting of wash and rinse arms

Make sure that:

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



2. the rinsing arm is correctly installed.



I.5 Positioning and fitting of the curtains

Make sure all the types of curtains, provided with the machine, are correctly fitted according to that indicated in paragraph "G.13 *Fitting curtains*".



IMPORTANT

Close the doors of the various appliance modules only when all the parts previously described are correctly installed, then start the machine.

I.6 First use

• Open the water supply taps.



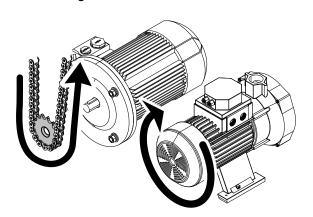
- Press the button **I** to switch the appliance ON;
- Wait for several minutes to check the wash tank and boiler temperature.



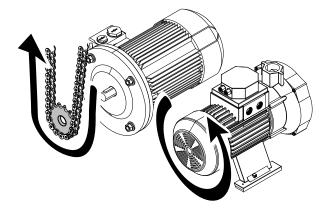


To change the default factory settings, call the Customer Care service or specialised technician authorized by the company.

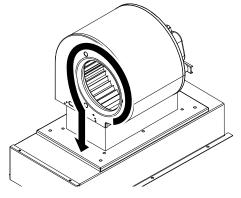
- Press START button to start the washing cycle.
- Press the PAUSE button **W** to stop the washing cycle.
- Check if the rotation of wash pump and conveyor motor is in the direction as indicated by the arrow.
 For models Right to Left



For models Left to Right



• Check if the fan rotation of the drying motor is in the direction as indicated by the arrow.



How to fix the wrong rotation

- To reverse the motor rotation change the position of the power lines "L1", "L2", "L3" of the power supply cable (see paragraph G.12 *Electrical connections*).
- Check again if the components works properly.
- Close firmly the electrical box.

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