

Base cabinet

Base with doors

Base without doors

Closed base




therma*line*

EN-US Installation and Operating manual



Foreword

 Read the following instructions, including the warranty terms before installing and using the machine.

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 Register your product

 Get hints & tips of your product, service and repair information

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 WARNING AND 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



Read the instructions before using the appliance








Clarifications and explanations

- This appliance is to be intended for commercial and collective use, not for continuous mass production of food nor for household use. Any other use is deemed improper.
- Only specialised personnel are authorised to operate on the machine.
- This appliance must not be used by minors and adults with limited physical, sensory or mental abilities or without adequate experience and knowledge regarding its use.
 - Do not let children play with the appliance.
 - Keep all packaging and detergents away from children.
- Do not store explosive substances, such as pressurized containers with flammable propellant, in this appliance or close to the appliance
- Do not remove, tamper with or make the machine data plate and markings illegible.
- Refer to the data given on the machine's data plate for relations with the Manufacturer (e. g. when ordering spare parts, etc.).

A.2 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	—	●	● ¹	—	—
Normal use	○	○	○	○	—
Adjustments	—	○	—	—	—
Routine cleaning	○	●	● ¹⁻²	○	—
Extraordinary cleaning	○	●	● ¹⁻²	○	—
Maintenance	○	●	●	—	—
Dismantling	○	●	●	—	—
Scrapping	○	●	●	—	—
Key:					
●	PPE REQUIRED				
○	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).

2. 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.3 General safety

- The machines are provided with electric and/or mechanical safety devices for protecting workers and the machine itself.
- Never operate the machine, removing, modifying or tampering with the guards, protection or safety devices.
- Do not make any modifications to the parts supplied with the appliance.
- 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.
- Do not remove, tamper with or make illegible the safety, danger and instruction signs and labels on the machine.
- Before servicing, disconnect the electrical service and place a red tag at the disconnect switch to indicate work is being done on that circuit.
- Place emergency telephone numbers in a visible position.

- The A-weighted emission sound pressure level does not exceed 70 dB(A).
- Turn the appliance off in case of fault or poor operation.
- Do not use products (even if diluted) containing chlorine (sodium hypochlorite, hydrochloric or muriatic acid, etc.) to clean the appliance or the floor under it.
- Do not use metal tools to clean steel parts (wire brushes or Scotch Brite type scouring pads).
- Do not allow oil or grease to come into contact with plastic parts. Do not allow dirt, fat, food or other residuals to form deposits on the appliance.
- Do not spray water or use water jets or steam cleaner.
- Do not store or use gasoline or other flammable vapours, liquids or items in the vicinity of this or any other appliance.
- Do not spray aerosols in the vicinity of this appliance while it is in operation.

A.4 General safety rules

Protection devices installed on the machine

- 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. 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.

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.
- During maintenance, always carried out by personnel qualified, 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.
- Repair and extraordinary Maintenance have to be carried out by specialised authorised personnel provided with all the appropriate personal protection equipment, tools, utensils and ancillary means.
- Never operate the machine, removing, modifying or tampering with the guards, protection or safety devices.
- Before carrying out any operation on the machine, always consult the manual which gives the correct procedures and contains important information on safety.

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
Burns/abrasions (e.g. heating elements)	The operator deliberately or unintentionally touches some components inside the machine without using protective gloves
Electrocution	Contact with live parts during maintenance operations carried out with the electrical panel powered
Sudden closing of the lid/door/oven door (if present, depending on the appliance type)	The operator for normal machine use could suddenly and deliberately close the lid/door/oven door (if present, depending on the appliance type)
Tipping of loads	When handling the machine or the packing containing it, using unsuitable lifting systems or accessories or with the unbalanced load

Mechanical safety characteristics, hazards



- The appliance 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.







CAUTION

In case of a significant anomaly (e.g. short circuits, wires coming out of the terminal block, motor breakdowns, worn electrical cable sheathing, smell of gas indicating possible leakage, etc.) the operator must: immediately deactivate the machine and disconnect all the supplies (electricity, gas, water).

A.5 Safety signs to be placed near the machine area

Prohibition	Meaning
	Do not remove the safety devices
	Do not use water to extinguish fires (placed on electrical parts)

Prohibition	Meaning
	Keep the area around the appliance clear and free from combustible materials. Do not keep flammable materials in the vicinity of the appliance
	Install the appliance in a well-ventilated place to avoid the creation of dangerous mixtures of unburnt gases in the same room

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

End of use

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

A.6 Transport, handling and storage

- Due to their size, the machines can be stacked on top of each other during transport, handling and storage by complying with that specified on the slip placed on the packing.
- Do not stand under suspended loads during loading/unloading operations. Unauthorised 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: casing, electrical raceways, pneumatic parts, etc.
- Do not push or pull the appliance to move it, as it may tip over.
- 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 (e.g. overalls, safety shoes, gloves and helmet).
- When removing the anchoring systems, make sure the stability of the machine parts does not depend on the anchoring and, therefore, that this operation does not cause the load to fall off the vehicle. Before unloading the machine components, make sure all the anchoring systems are removed.
- Machine positioning, installation and disassembly must be carried out by specialised personnel.

A.7 Installation and assembly

- The operations described must be carried out by personnel qualified (refer to D.9 *Characteristics of personnel trained for normal machine use*) in compliance with the current safety regulations, regarding the equipment used and the operating procedures.
- The plug, if present, must be accessible after positioning the appliance in the place of installation.
- Disconnect the appliance from the power supply before carrying out any installation procedure.

A.8 Machine space limits

- A suitable space must be left around the appliance (for operations, maintenance, 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.

A.9 Positioning

- Install the appliance, taking all the safety precautions required for this type of operation, also respecting the relevant fire-prevention measures.
- Handle the appliance with care in order to avoid damage or danger to people. Use a pallet for handling and positioning.
- The installation diagram gives the appliance overall dimensions and the position of connections (gas, electricity, water). Check that they are available and ready for making all the necessary connections.
- Prevent the areas where the machine is installed to be polluted with corrosive substances (chlorine, etc.). In case such prevention cannot be guaranteed, the entire stainless steel surface has to be coated by a paraffin protective film spread by using a rag soaked with paraffin. The manufacturer declines any liability for corrosive effects due to external causes.
- The appliance can be installed separately or combined only with other appliances of the same range.
- Maintain a distance of at least 50 mm / 1,97" between the appliance and any combustible walls. Do not store or use flammable materials and liquids near the appliance.
- Check and, if necessary, level the appliance after positioning. Incorrect levelling can cause appliance malfunctioning.
- Wear protective gloves and unpack the machine, carrying out the following operations:
 - cut the straps and remove the protective film, taking care not to scratch the surface if scissors or blades are used;
 - remove the cardboard top, the polystyrene corners and the vertical protection pieces;
 - for appliances with stainless steel cabinet, remove the protective film very slowly without tearing it, to avoid leaving glue stuck to the surface;
 - should this happen, remove the traces of glue with a non-corrosive solvent, rinsing it off and drying thoroughly;
 - go over all stainless steel surfaces vigorously with a cloth moistened with paraffin oil in order to create a protective film.
- In case of electrical permanent connection: the device must be lockable in the open position and accessible even after the appliance is installed in its place.

A.10 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.

The previously described actions are prohibited!

A.11 Machine cleaning and maintenance

- Before carrying out any cleaning or maintenance, disconnect the appliance from the power supply and carefully unplug it (if present).
- During maintenance, the cable and plug (if present) must be kept in a visible position by the operator carrying out the work.
- Do not touch the appliance with wet hands or feet or when barefoot.
- Do not remove the safety guards.
- Use suitable personal protection equipment (protective gloves). Refer to “A.2 *Personal protection equipment*” for suitable personal protection equipment.

Ordinary maintenance

- Disconnect the power supply before cleaning the appliance.
- Do not clean the machine with jets of water.

Precaution in case of long idle periods

- Machine maintenance, checking and overhaul operations must only be carried out by specialised personnel or the Customer Care Service, provided with adequate personal protection equipment, tools and ancillary means.
- Work on the electrical equipment must only be carried out by specialised personnel or the Customer Care Service.
- Put the machine in safe conditions before starting any maintenance operation.
- Respect the requirements for the various routine and extraordinary maintenance operations. Non-compliance with the instructions can create risks for personnel.

Preventive maintenance

- In order to ensure the safety and performance of your equipment, it is recommended that service is undertaken by Electrolux Professional authorised engineers every 12 months, in accordance with Electrolux Professional Service Manuals. Please contact your local Electrolux Professional Service Centre for further details.

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 unauthorised technician by the Manufacturer and the original manufacturer warranty will be invalidated.

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.

A.12 Machine disposal

- Dismantling operations must be carried out by specialised personnel.
- Work on the electrical equipment must only be carried out by specialised personnel, with the power supply disconnected.
- Make the appliance unusable by removing the power cable and any compartment closing devices, to prevent the possibility of someone becoming trapped inside.

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) and modification of safety systems;
- Use of non-original components (e.g.: consumables, wear and tear, or spare parts);
- 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.

C TECHNICAL DATA

This instruction manual contains information relevant to various appliances. The product images in this guide are only an example, are not in scale and vary from the base of the model.

C.1 Technical data

	GN conform	Hygiene class
M*1A***000		H2
M*1B/D/F***000	●	H2
M*1G***000		H3
M*1H***000	●	H3
M*1M***000		NHC ¹
M*1N/P/R***000	●	NHC ¹
M*1G***00M		H3
M*1H***00M	●	H3
M*2A***000		H2
M*2B/D/F***000	●	H2
M*3A***000		/

1. no hygienic class

C.2 How to interpret the factory description

The factory description has the following meaning:

1st digit - Product line

M	Modular
---	---------

2nd digit - Family (depth)

A	800 mm / 31,50"
B	850 mm / 33,46"
C	900 mm / 35,43"

3rd + 4th digit - Function type

3 rd	4 th	
1	A	Open base, H2 ¹
1	B	Open base, H2 ¹ , comply with GN specification
1	D	Base, H2 ¹ , one door, comply with GN specification
1	F	Base, H2 ¹ , two doors, comply with GN specification
1	G	Open base, H3 ¹
1	H	Open base, H3 ¹ , comply with GN specification

3rd + 4th digit - Function type (cont'd.)

3 rd	4 th	
1	M	Open base, NHC ²
1	N	Open base, NHC ² , comply with GN specification
1	P	Base, NHC ² , one door, comply with GN specification
1	R	Base, NHC ² , two doors, comply with GN specification
2	A	Open base passtrough, H2 ¹
2	B	Open base passtrough, H2 ¹ , comply with GN specification
2	D	Base passtrough, H2 ¹ , one door, comply with GN specification
2	E	Base passtrough, H2 ¹ , two doors
2	F	Base passtrough, H2 ¹ , two doors, comply with GN specification
3	A	Closed base

1. hygienic class
2. no hygienic class

5th digit - Module type (height)

C	450 mm / 17,72"
D	550 mm / 21,65"

6th digit - User operating

A	one side
C	two sides
O	no function

7th digit - Width

A	100 mm / 3,94"
B	200 mm / 7,87"

7th digit - Width (cont'd.)

C	300 mm / 11,81"
D	400 mm / 15,75"
E	500 mm / 19,69"
F	600 mm / 23,62"
G	700 mm / 27,56"
H	800 mm / 31,5"
I	900 mm / 35,43"
J	1000 mm / 39,37"
K	1200 mm / 47,24"
L	1500 mm / 59,06"

8th digit - Base combination

O	no function
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9th digit - Power supply

O	no power supply
---	-----------------

10th digit - Option

M	Marine
O	No options

C.3 Testing / Certification

All appliances are tested according to the relevant standards and approved engineering rules by internationally recognised testing bodies. This guarantees that all internationally required quality and safety standards have been met.

This appliance has passed the testing for protection class IPX5 (water protection).

To ensure continued compliance with this protection class, all seals must remain in a perfect condition and all components must be assembled properly after installation, repairs and maintenance work.

D GENERAL INFORMATION

D.1 Introduction

The drawings and diagrams given in the manual are not in scale. They supplement the written information with an outline, but are not intended to be a detailed representation of the machine supplied.

The numerical values given on the machine installation diagrams refer to measurements in millimeters and/or inches.

D.2 Intended use and restrictions

This appliance must not be used by minors and/or adults with limited physical, sensory or mental abilities or without adequate experience and knowledge regarding its use.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by unauthorised personnel.



CAUTION

The machine is not suitable for installation outdoors and/or in places exposed to atmospheric agents (rain, direct sunlight, etc.).

D.3 Copyright

This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of Electrolux Professional company.

D.4 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.

D.5 Recipients of the manual

This manual is intended for:

- the carrier and handling personnel;
- installation and commissioning personnel;
- the employer of machine users and the workplace manager;
- operators for normal machine use;
- specialised personnel - Customer Care service (see service manual).

D.6 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 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 personnel	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 etc.
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).
Electrocution	an accidental discharge of electric current on a human body.

D.7 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.

D.8 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:

	Polyethylene <ul style="list-style-type: none"> • Outer wrapping • Instructions bag
	Polypropylene <ul style="list-style-type: none"> • Straps • Top packaging panels
	Polystyrene foam <ul style="list-style-type: none"> • Corner protectors

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

D.9 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.10 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.11 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 and disconnect all the supplies (electricity, gas, water).

E TRANSPORT, HANDLING AND STORAGE

E.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.



CAUTION

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.
-

E.2 Transport



CAUTION

Before moving the appliance make sure the load bearing capacity of the lifting equipment used is suitable for its weight.

Due to the appliance dimensions it is possible to stack the appliances on top of each other during transport, by complying with that specified on the slip placed on the packing.

The manufacturer shall under no circumstances be liable for damage during transport or damage to the packaging.

E.3 Handling

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

E.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.

E.3.2 Shifting

The operator must:

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

E.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.

For more information please refer to the installation chapter.

E.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 5°C / 41°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.



CAUTION

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

F INSTALLATION DIAGRAMS

F.1 Dimension drawings for floor installations

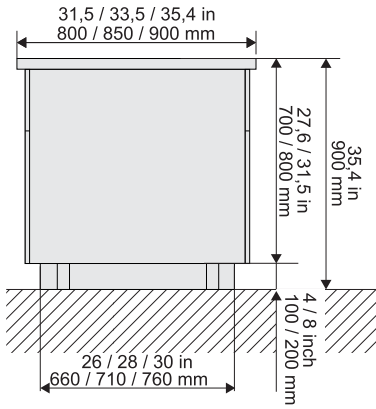


CAUTION

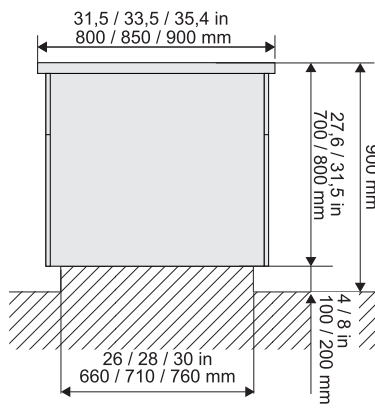
When installing with concrete plinth, the wall niche must be at least 70 mm [2,76"] deep but must not exceed 100 mm [3,94"] to ensure the appliance has a solid base and sufficient ventilation inside it.

Floor installation options:

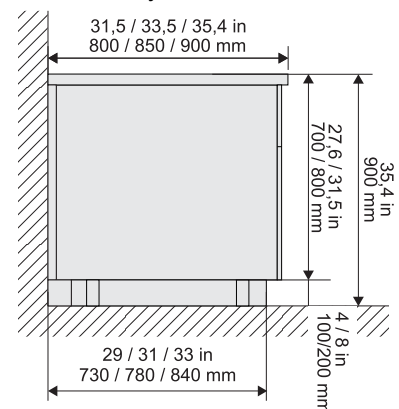
1. On steel plinth or adjustable feet



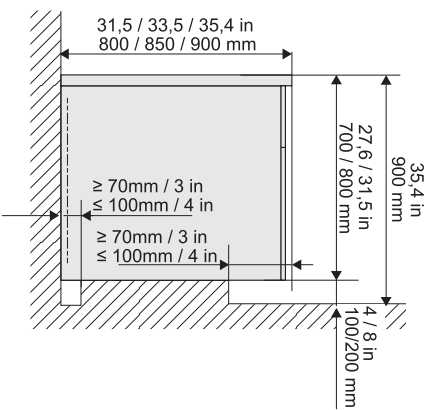
2. On concrete plinth



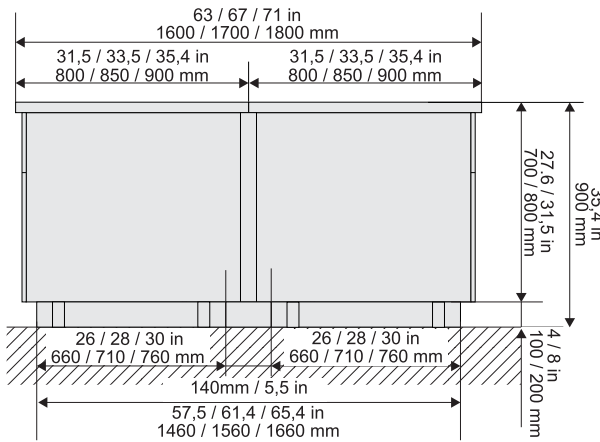
3. Against the wall on steel plinth or adjustable feet



4. Against the wall on concrete plinth



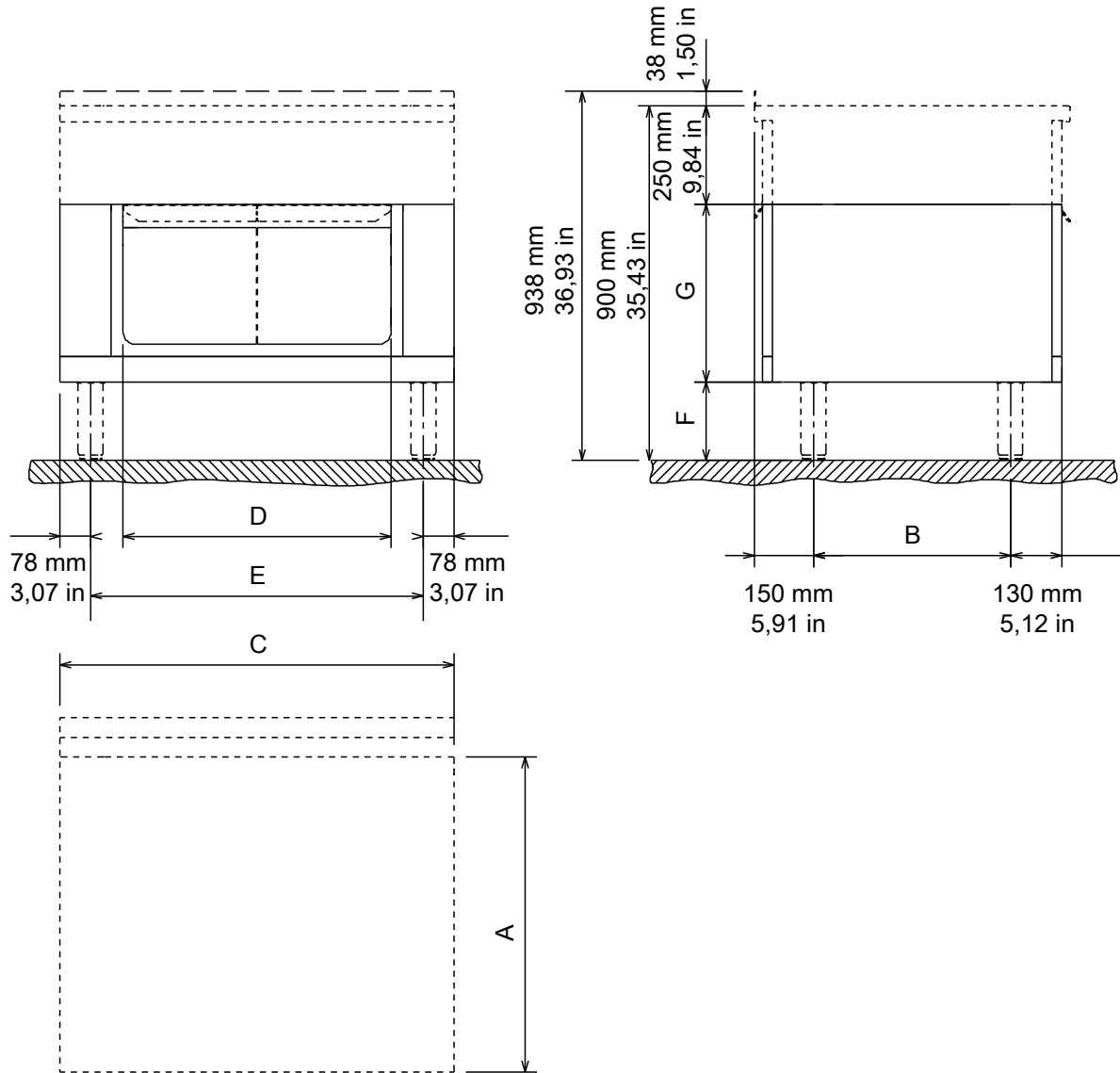
5. Back to back



NOTE!

Please note that not all models are available in the depths shown on the diagram.

F.2 Installation and connection diagram



	A	B
mm	800	500
in	31,50	19,69
mm	850	550
in	33,46	21,65
mm	900	600
in	35,43	23,62
mm		
in		
mm		
in		

	C	D	E
mm	100 ¹	/	/
in	3,94	/	/
mm	200 ¹	/	/
in	7,87	/	/
mm	300 ¹	/	144
in	11,81	/	5,67
mm	400	340	244
in	15,75	13,39	9,61
mm	500	340	344
in	19,69	13,39	13,54
mm	600	340	444
in	23,62	13,39	17,48

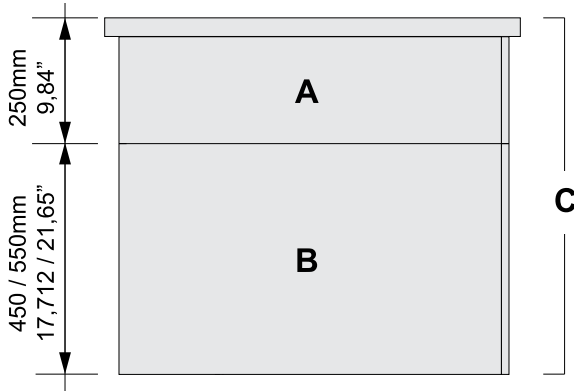
	C	D	E
mm	700	580	544
in	27,56	22,83	21,42
mm	800	580	644
in	31,50	22,83	25,35
mm	900	680	744
in	35,43	26,77	29,29
mm	1000	680	844
in	39,37	26,77	33,23
mm	1200	840	1044
in	47,24	33,07	41,10
mm	1500	840	1344
in	59,06	33,07	52,91

	F	G
mm	200	450
in	7,87	17,72
mm	100	550
in	3,94	21,65

1. Only for closed bases
2. only for 850 mm / 33,46" depth

G INSTALLATION AND ASSEMBLY

G.1 Appliance type



When describing our appliances, we distinguish between top modules **A**, base modules **B** and factory-assembled units **C**. Top and base modules can be set up together or as individual units.

The appliance must always be installed in its intended location according to the relevant installation and connection diagrams (*F Installation DIAGRAMS*). The appliance should be connected to fixed cables.

Installation options:

1. **Wall mounted** (not available for all appliances)
2. **Standing against the wall**
 - on adjustable feet
 - on steel plinth
 - on concrete plinth
3. **Free standing**

G.4 Installing on feet or plinth

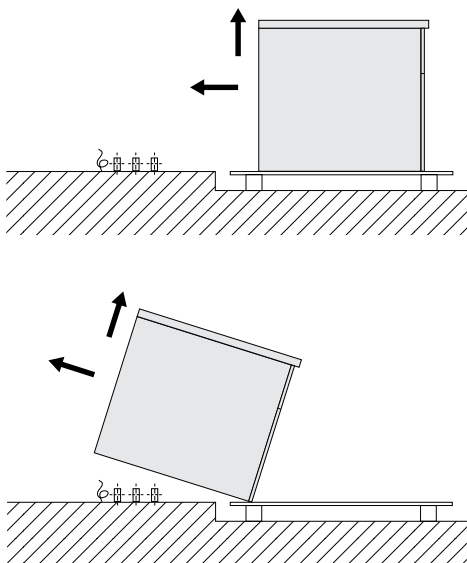
G.4.1 Installation

To transport the appliance to the final location, see *E TRANSPORT, HANDLING AND STORAGE*.

Packaging should only be removed immediately before the unit is installed. To do so, take away all side and top parts of the packaging in turn, as well as the fixing elements.

The unit remains on the transport pallet until it is at its final location.

G.4.2 Positioning on concrete plinth



- on adjustable feet
- on steel plinth
- on concrete plinth

The appliances are suitable for setting up as single appliances or as a group of appliances.

They can be positioned freely in the space provided, side by side, against a wall or back-to-back. When installing side by side, appliances are connected to a rail.

Different wall frames are used when setting up against a wall.

The ventilation engineer is responsible for assessing/planning a technically correct ventilation.

G.2 Distances / walls

The appliance must not be installed on flammable walls. If an appliance is set up next to or against temperature-sensitive furniture or similar, keep a safety-distance of approximately 50 mm / 1.97" or fit some form of heat shield.

When installing the unit in the immediate vicinity of walls, partitions, kitchen units, decorative panels, etc., we recommend that these are either made from non-combustible materials or coated/tiled in suitable, non-flammable materials.

The local fire protection regulations must be fully complied with.

G.3 Before installation

Depending on your model, prepare the following before the appliance is installed and positioned correctly:

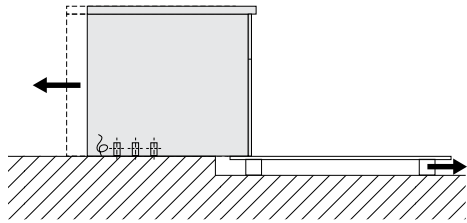
- Fastening elements, i.e. drill holes and insert dowels.
- Prepare water, gas and electrical connections and install a shut-off valve, if necessary.

1. Transport the appliance on its transport pallet directly in front of the point of installation.

2. Remove the pre-cut plate at the bottom of the appliance. (for access, see *F Installation DIAGRAMS*).

3. Lift the unit on one side so that all installation connections are inside the appliance.

4. Carefully lower the appliance and then move it into the correct position. Finally, remove the transport palette.



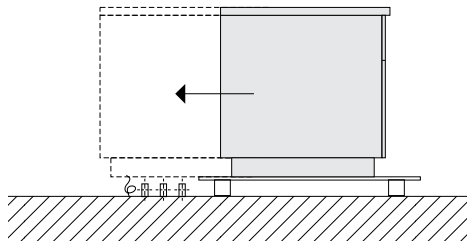
- Remove the outer protective film and the edge covers, taking care not to scratch the surface of the appliance. Very slowly pull off the protective film on the stainless steel surfaces, without ripping, to prevent any adhesive residue. Remove any adhesive residue with a non-corrosive solvent. Then rinse and dry the spot thoroughly.

G.4.3 Positioning on steel plinth or adjustable feet



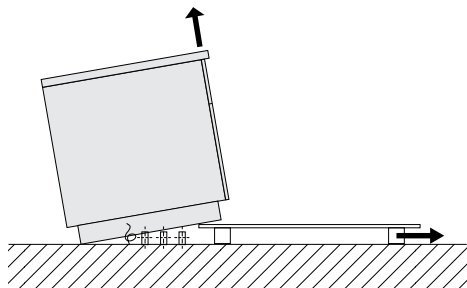
NOTE!

If installing on a steel plinth or adjustable feet, always make sure these are attached to the appliance beforehand. There are no tools for taking the unit down from the transport pallet and putting it in place; all you need is manpower, with two to four men required depending on the size of the unit.



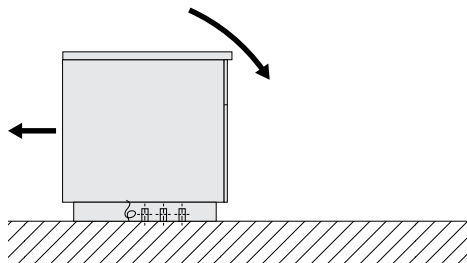
- Transport the appliance on its pallet to directly in front of the point of installation. The installation connections that are sticking out of the floor should be as close as possible to the side of the transport pallet.

- Remove the pre-cut plate at the bottom of the appliance. (for access, see F *Installation DIAGRAMS*).



- Shift the appliance onto the transport pallet such that all of the installation connections lie within the appliance.

- Tip the appliance until it is standing on the floor. Then lift at the front and remove the transport pallet.



- Carefully lower the appliance and then move it into the correct position.

- Remove the outer protective film and the edge covers, taking care not to scratch the surface of the appliance. Very slowly pull off the protective film on the stainless steel surfaces, without ripping, to prevent any adhesive residue. Remove any adhesive residue with a non-corrosive solvent. Then rinse and dry the spot thoroughly.

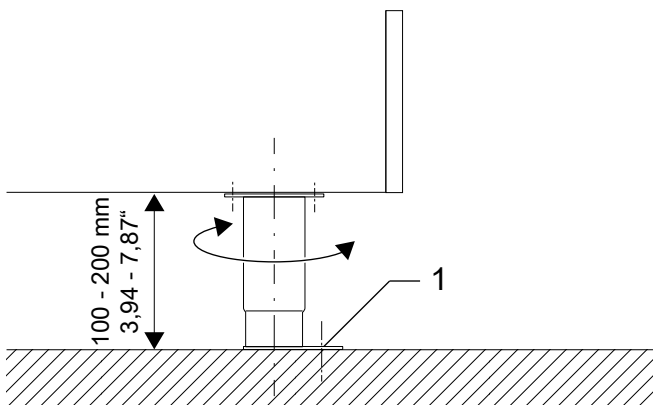
G.4.4 Securing or adjusting to the floor (optional)

If you need to secure it to the floor, the appliance comes with compatible adjustable feet.

We recommend you adjust the feet so you end up with a working height of 900 mm / 35,43". Level the unit with a spirit level.

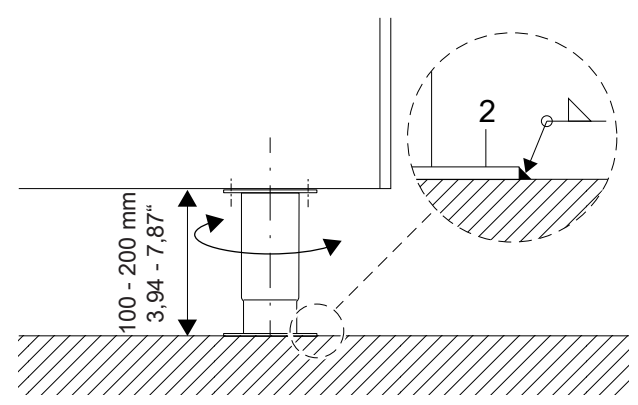
Attaching the unit with screws

The feet have metal plates which may be secured to the floor using screws.



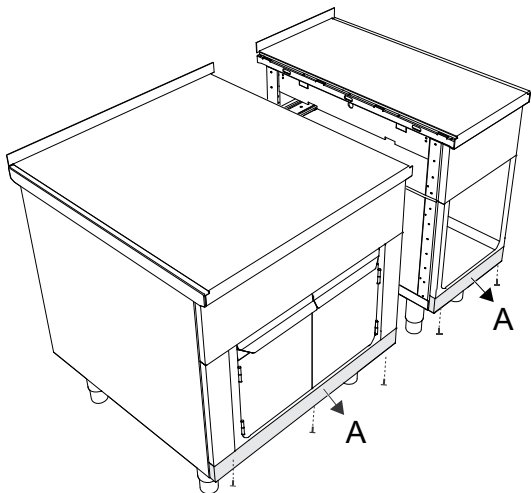
Attaching the unit by welding

The metal plate underneath the feet must be welded to the floor with a continuous weld around the outer edge.

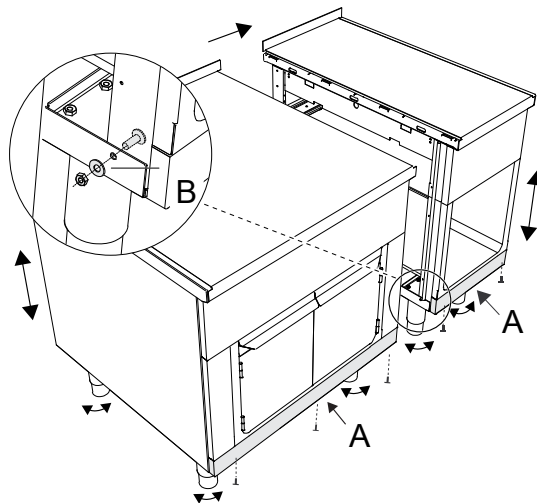


G.5 Fastening multiple appliances together

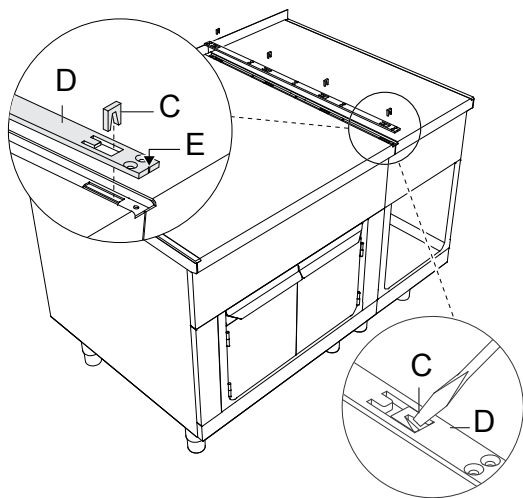
- ① Remove lower panel **A** by undoing the screws.



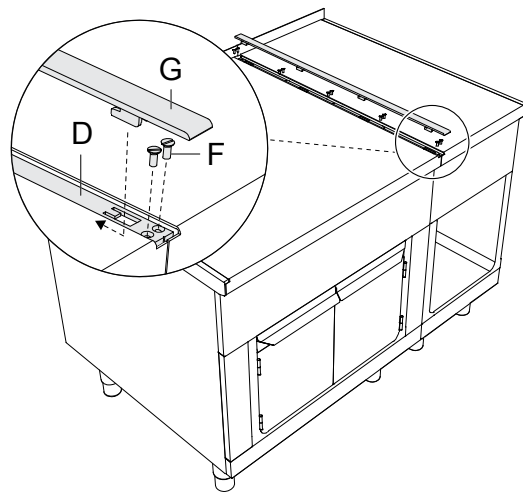
- ② Push the units together. Use the adjusting screws on the feet to bring the appliances to the same height, then level them.
Screw the appliances together at the base using the screw, washer and nut **B**. Replace panel **A** using the screws.



- ③ Using a solid tool, break nuts **C** from connecting rail **D**. Insert connecting rail **D** into the gap between the top, making sure marking **E** is pointing forwards. Connect the appliances by hammering nuts **C** into the dedicated cut out.



- ④ Seal the whole length of the joint with long lasting silicone (we recommend grey junction sealing, code: 059611). Attach the rail **D** using the supplied screws **F**.
Insert the hook on the underside of cover **G** into the eyelets in the connecting rail and slide cover **G** backwards until it aligns to the front.



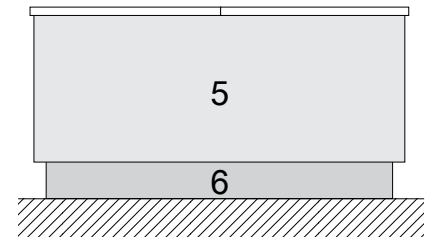
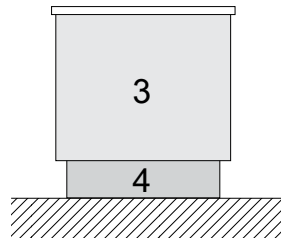
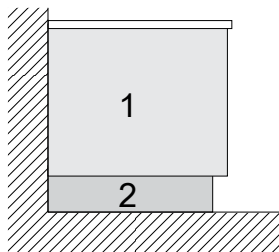
G.6 Side panels and base models

All side panels are available in two different versions:

- **Side panel with an overhang of 12,5 mm / 0,49"** for individual mounting on walls.
- **Side cover without overhang.**

Mount the faceplates onto the unit cladding when setting up. The faceplates suitable for your type of installation are available as optional accessories.

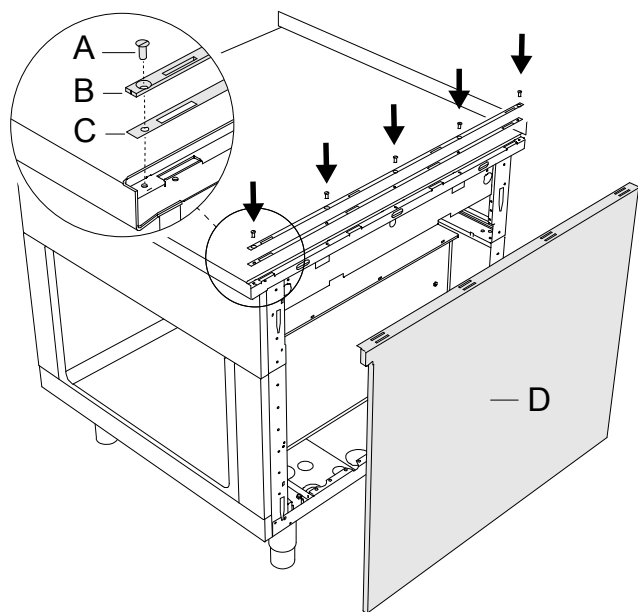
	Height	Width	Available for appliance depth (mm, inch)		
			mm inch	mm inch	mm inch
1 Side panels for wall installation	400 mm 15,75"			●	●
	700 mm 27,56"		●	●	●
	800 mm 31,5"		●		●
2 Base panel or stainless steel base for wall mounting	100 mm 3,94"	300 – 2500 mm 11,81 – 98,43"	●		●
	200 mm 7,87"	300 – 2500 mm 11,81 – 98,43"	●	●	●
3 Side panels for free-standing appliances	700 mm 27,56"		●	●	●
	800 mm 31,5"		●		●
4 Base panel or stainless steel base for free-standing appliances	100 mm 3,94"	300 – 2500 mm 11,81 – 98,43"	●		●
	200 mm 7,87"	300 – 2500 mm 11,81 – 98,43"	●	●	●
5 Side panels for back-to-back setup	700 mm 27,56"		●	●	●
	800 mm 31,5"		●		●
6 Base panel or stainless steel base for mounting back-to-back	100 mm 3,94"	300 – 2500 mm 11,81 – 98,43"	●		●
	200 mm 7,87"	300 – 2500 mm 11,81 – 98,43"	●	●	●



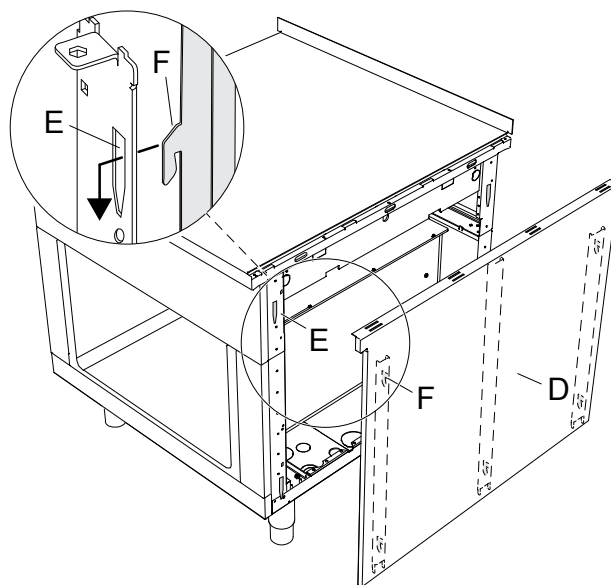
G.7 Fixing the side panels

G.7.1 Panels with a 12,5 mm / 0,49" overhang

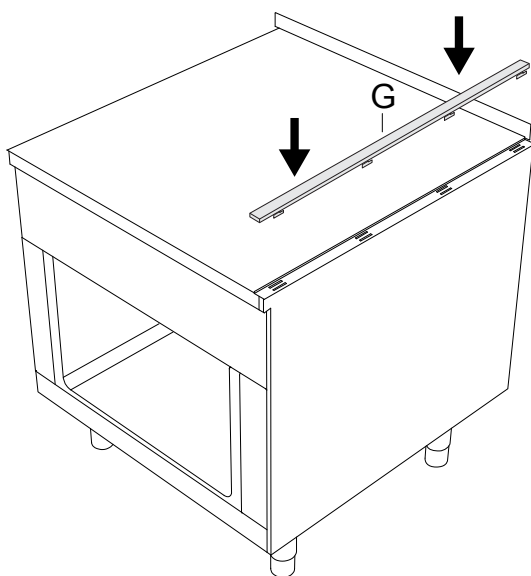
- ① Attach connecting rails **B** and **C** with the supplied screws **A**. Make sure marking on part **B** on the rail is pointing forwards.



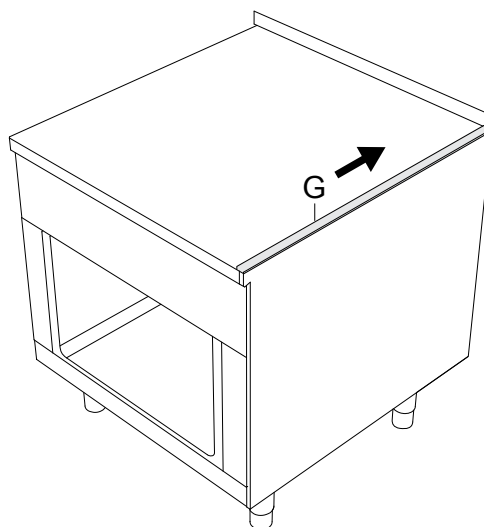
- ② Bring the side panel **D** into position. Put the 5 hooks of the panel **F** into the slots **E**.



- ③ Insert the hooks on the bottom of end rail **G** into the eyelets of the connecting rail.



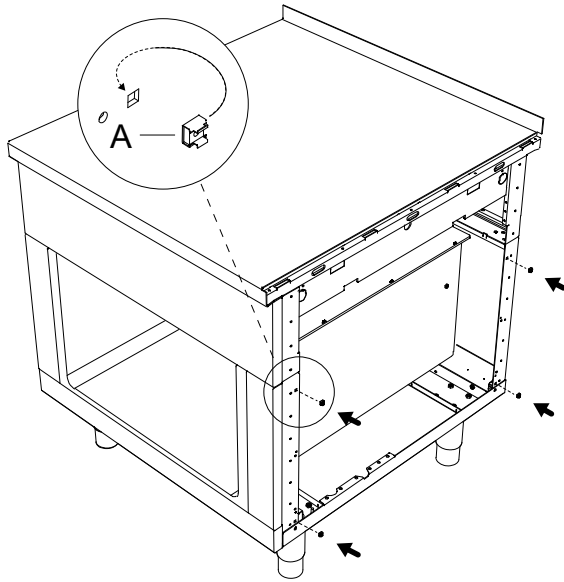
- ④ Slide end rail **G** in the direction of the arrow to align it to the front.



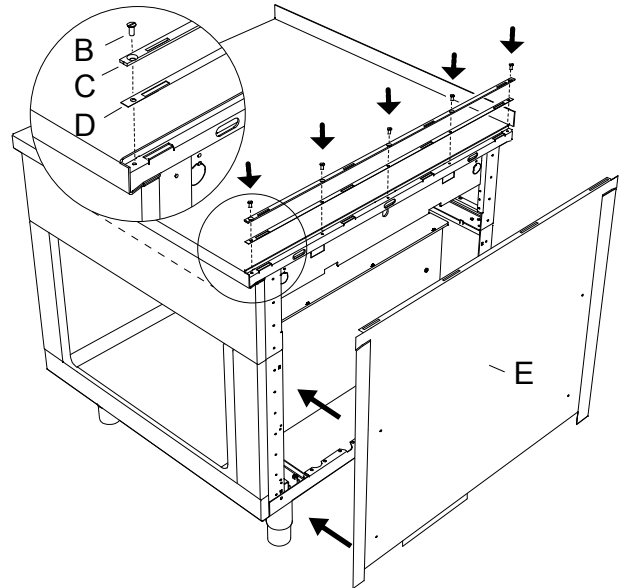
G.7.2 Side cover without overhang

The side cover should only be used as a closing off against the wall, against a niche and in between appliances (provided that these have the same dimensions). Standard cover has pre-cuts that you can adapt to the appliances according to the left/right side.

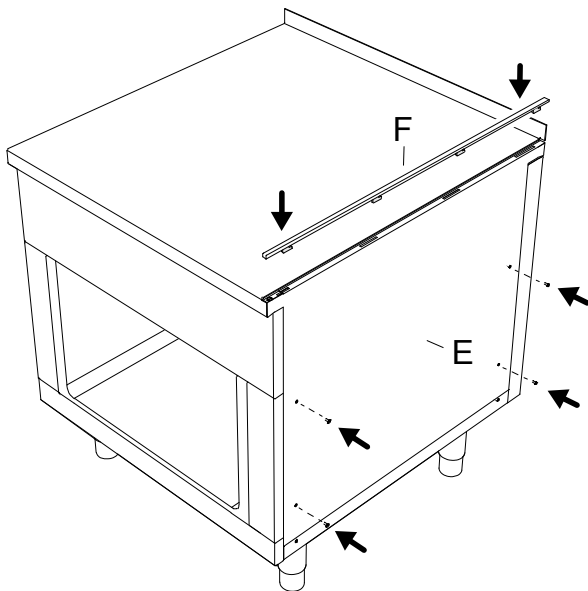
- 1 Fit the 4 cage nuts **A** into the dedicated slots on the frame.



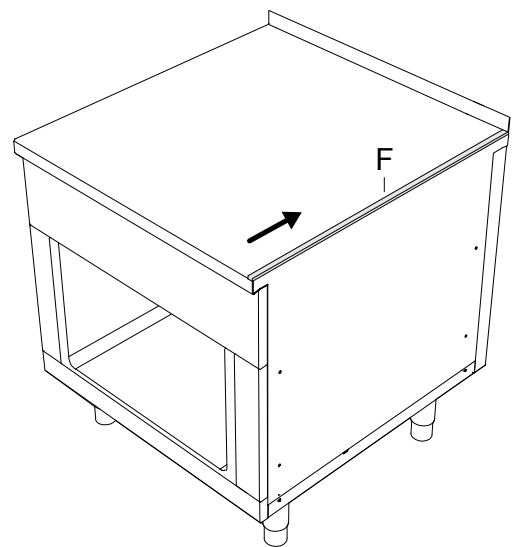
- 2 Attach connecting rails **C** and **D** with the supplied screws **B**.
Make sure marking on part **C** on the rail is pointing forwards.
Bring the side panel **E** into position.



- 3 Insert the hooks on the bottom of end rail **F** into the eyelets of the connecting rail.
Attach the side of side cover **E** using the 4 flathead screws supplied.



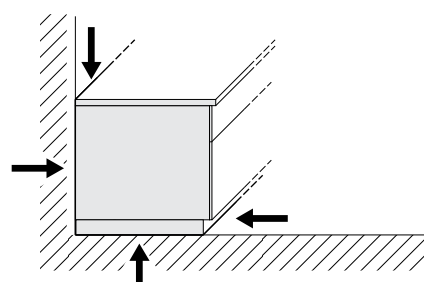
- 4 Slide end rail **F** in the direction of the arrow to align it to the front.



G.7.3 Sealing

For hygiene reasons, to prevent water and other substances from running under the appliance, seal all around the joints

between the appliance and the wall or floor with permanently elastic silicone.



H CLEANING

H.1 Introduction



WARNING

- Only start cleaning once the appliance has cooled.
- Do not clean the appliance with flammable liquids.



CAUTION

Do not spray the appliance or its parts with a high-pressure cleaner or a steam cleaner; this may cause it to malfunction.

H.2 Cleaning the appliance and accessories

Before using the appliance, clean all the internal parts and accessories with lukewarm water and neutral soap or products that are over 90% biodegradable (in order to reduce the emission of pollutants into the environment), then rinse and dry thoroughly.



CAUTION

Do not use solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders for cleaning.



CAUTION

Do not use steel brushes, steel wool, copper cloths, sand-based or similar products for cleaning

Accessories such as baskets and containers must be cleaned outside of the appliance.

H.3 Stainless steel surfaces

The reason stainless steel can resist corrosion and rust is its passive layer which builds up when oxygen hits the metal surface. There is sufficient oxygen in the air to do this.

If this passive layer is physically broken or damaged by chemical substances, leaving it unable to regenerate itself, even rust-free stainless steel can be subject to corrosion.

It is possible to develop or regenerate the passive layer by treating it with running, oxygen-rich water.

Oxygen-starving abrasives such as hydrochloric acid, chlorides and spice concentrates, mustard, vinegar essences, spice cubes and cooking salt solutions can lead to chemical damage or rupture of the passive layer, depending on the concentration and temperature.

Extraneous rust (iron particles), the formation of galvanic elements and lack of oxygen could cause more damage.

If the appliance is kept in an environment with corrosive substances (e.g. chlorine), it is advisable to apply a thin layer of Vaseline oil to its cleaned stainless steel surfaces.



IMPORTANT

Keep stainless steel surfaces clean at all times and make sure they are well ventilated.

Please follow these instructions:

- Remove grime, fat and other cooking residuals from steel surfaces when cool using soapy water, with or without detergent, and a cloth or sponge.
Dry the surfaces thoroughly after cleaning.
- In case of encrusted grime, fat or food residuals, go over with a cloth or sponge, wipe in the direction of the satin finish and rinse often.
Rubbing in a circular motion combined with the particles of dirt on the cloth/sponge could spoil the steel's satin finish.

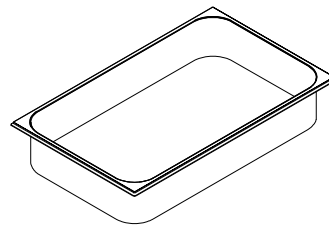
- Metal objects can spoil or damage the steel: damaged surfaces become dirty more easily and are more subject to corrosion.
- Restore the satin finish if necessary.
- Do not let stainless steel parts come into prolonged contact with acids, spices, salts, etc. Even acid fumes which build up from cleaning tiled surfaces can promote corrosion.
Rinse off work surfaces with fresh water. This applies especially after cooking potatoes, pasta or rice in salted water.

H.4 Colored surfaces

- Clean all colored surfaces on a daily basis.
- Use soapy water and a cloth to remove food particles and grease
- Metal objects can spoil or damage the surface: damaged surfaces become dirty more easily and are more subject to corrosion.
- Do not let colored surfaces come into prolonged contact with acids, spices, salts, etc. Even acid fumes which build up from cleaning tiled surfaces can promote corrosion.

H.5 Collecting trays

- Empty and clean collecting trays, if present, on a daily basis.
- Clean them with hot water. Add a degreasing detergent if necessary.
- Rinse thoroughly with clean water.
- Rub dry and replace.



WARNING

The collecting trays can get hot. Always wear protective gloves when you empty them.

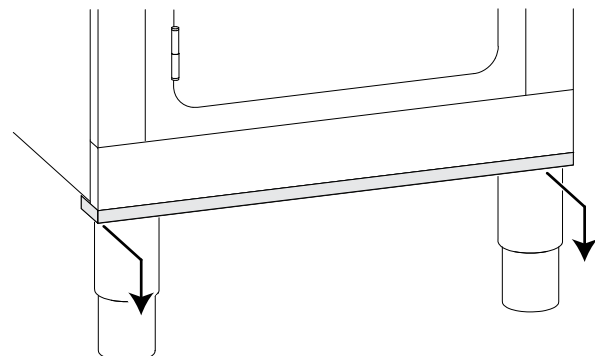
H.6 Air filter (optional)

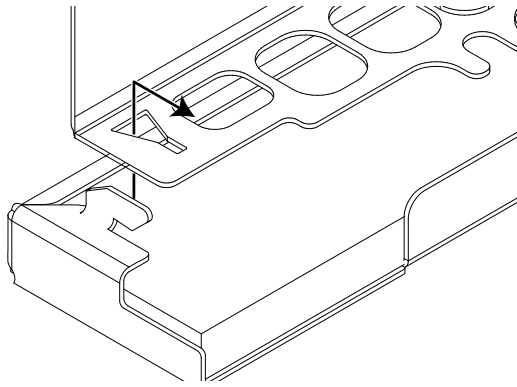
If present, remove the air filter at least once a month from under the lower front panel and clean with water and detergent used for manual dishes cleaning.



IMPORTANT

Non-compliance with the above instruction will result in filter inefficiency and may lead to malfunctioning of the appliance.





H.7 Descaling



WARNING

Refer to *A.2 Personal protection equipment*



IMPORTANT

Remove limescale, fat, starch and protein layers with regular cleaning to avoid corrosion.

- De-scale the appliance with a solution of 10% vinegar, 10% phosphoric acid or a suitable de-scaling solution available for purchase.
- Never use steel wool or other abrasive materials which can scratch the surface of the stainless steel.

I MAINTENANCE AND CUSTOMER SERVICE



WARNING

Refer to “*WARNING and Safety Information*”.

I.1 Introduction



WARNING

Before starting any service, repair or maintenance work, the appliances must be disconnected from the mains supply, the gas supply turned off and water pipes closed off.

I.2 Maintenance intervals

The inspection and maintenance intervals depend on the actual machine operating conditions 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.

I.2.1 Preventive Maintenance

Preventive Maintenance reduces downtime and maximizes machines efficiency.

Customer Care Service can provide advice on the best maintenance plan to be purchased based on the intensity of use and the age of the equipment.

It is advisable to stipulate a preventive and scheduled maintenance contract with the Customer Care Service.

I.3 Informations for maintenance

During service, repair and maintenance work, distractions and stress factors must be avoided.

As such, unauthorised persons must be kept away from the appliance.

Servicing may be not carried out on ships at sea.

The warning and information notices fitted to the appliances must be obeyed by specialist and customer service staff and must not be removed or altered.



IMPORTANT

- Repairs and service on the appliances must be carried out when heating elements have cooled down.
- After completion of the maintenance and repair work, the service technician must carry out checks to ensure all operating modes of all functional and safety components are in accordance with the operating instructions.

I.4 Repair and extraordinary maintenance



NOTE!

Repair and extraordinary maintenance have to be carried out by specialised authorised personnel, who can ask the manufacturer to supply a service manual.

I.5 Periods of non-use

If the appliance is not going to be used for some time, take the following precautions:

- Close the valves or main switches ahead of the appliances;
- Go over all stainless steel surfaces vigorously with a cloth moistened with paraffin oil in order to create a protective film;
- Periodically air the premises;
- Have the appliance checked before using it again;
- For the electric heated models: switch the machine On at the minimum rate of heat for at least 45 minutes; this will allow moisture/humidity accumulated into the heating elements to evaporate without damaging the elements.
- Never store the appliance where the temperature can drop below 0°C / 32°F.
- Clean and dry the appliance thoroughly to avoid corrosion.
- Always leave drawers and doors open to ensure the oxygen can circulate.

J MACHINE DISPOSAL



WARNING

Refer to “*WARNING and Safety Information*”

J.1 Procedure regarding appliance dismantling macro operations

Before disposing of the machine, make sure to carefully check its physical condition, and in particular any parts of the structure that can give or break during scrapping.

The machine's parts must be disposed of in a differentiated way, according to their different characteristics (e.g. metals, oils, greases, plastic, rubber, etc.).

Different regulations are in force in the various countries, therefore comply with the provisions of the laws and competent bodies in the country where scrapping takes place.

In general, the appliance must be taken to a specialised collection/ scrapping centre.

Dismantle the appliance, grouping the components according to their chemical characteristics, remembering that the compressor contains lubricant oil and refrigerant fluid which can be recycled, and that the refrigerator components are special waste assimilable with urban waste.



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 any negative consequences for the environment and human health. For further information on the recycling of this product, contact the local dealer or agent, the Customer Care service or the local body responsible for waste disposal.



NOTE!

When scrapping the machine, any marking, this manual and other documents concerning the appliance must be destroyed.

- Make the appliance unusable (remove the power cable)
- Remove the drawers and locks

