



TERMOMOVENT



TAGLIAVINI

1934



TAGLIAVINI

This manual, is an integral part of the product and provides essential information regarding installation, use, operation and proper maintenance safety and must be handed over to the user. It must be kept handy in a safe place for any future reference and find itself wherever the oven is.

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TAGLIAVINI

USEFUL INFORMATION

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1. GENERAL DOCUMENTATION

1.0 Declaration CE of conformity

DECLARATION OF CONFORMITY ACCORDING TO:	
2014/30/EU "Electromagnetic Compatibility" Directive 2014/35/EU "Low Voltage" Directive 1935/2004/CE "Food Contact Materials" Regulation	
Product	
Model	
Matriculation number	
Year of construction	

With the present

Via Pontetaro 27/B - CAP 43015 - NOCETO - PARMA

Translation

declares, on its own responsibility, that the above- mentioned product have been manufactured according to the following EU directives: 2014/30/EU "Electromagnetic Compatibility ", 2014/35/UE "Low Voltage ", and 1935/2004/CE and 10/2011/CE "Food Contact Materials" regulations. The conformity has been verified by the following harmonized standards:
EN 12043, EN 1672, EN 60335, EN 614, EN 12100, UNI EN ISO 14120, UNI EN ISO 21469, UNI ISO/TR 14121.

The constructor quality system is certified by the institutions QA International
Dudley Court
Dudley Road
United kingdom
Darlington DL14GG

Identification number 046.

The person authorized to establish the technical dossier is Mr. Stefano Gaibazzi, to the above- mentioned adress.

Noceto, _____

TAGLIAVINI S.p.A.
the Chairman

(Claudio Gaibazzi)

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TAGLIAVINI

1.1 Oven identification plate

Information about the Manufacturer:

TAGLIAVINI S.p.A.
Via Pontetaro 27/B
43015 NOCETO (PR)
tel. 0521 / 628844
Fax 0521 / 628763

Model: **TERMOVEN** mod. **TTV**_____

Serial number: _____

Year of manufacture: _____

Voltage (V): 380-400 415

Frequency (Hz): 50 60

Installed Electrical Capacity [kW]: _____ (see § 4.3)

Other oven characteristics:



1.2 Marking

The essential technical data regarding the equipment are indicated on the serial number plate and all connections are marked on the oven, as indicated in the following drawing.

For any communication with the manufacturing company or with the support centre, always indicate the model, code and serial number.

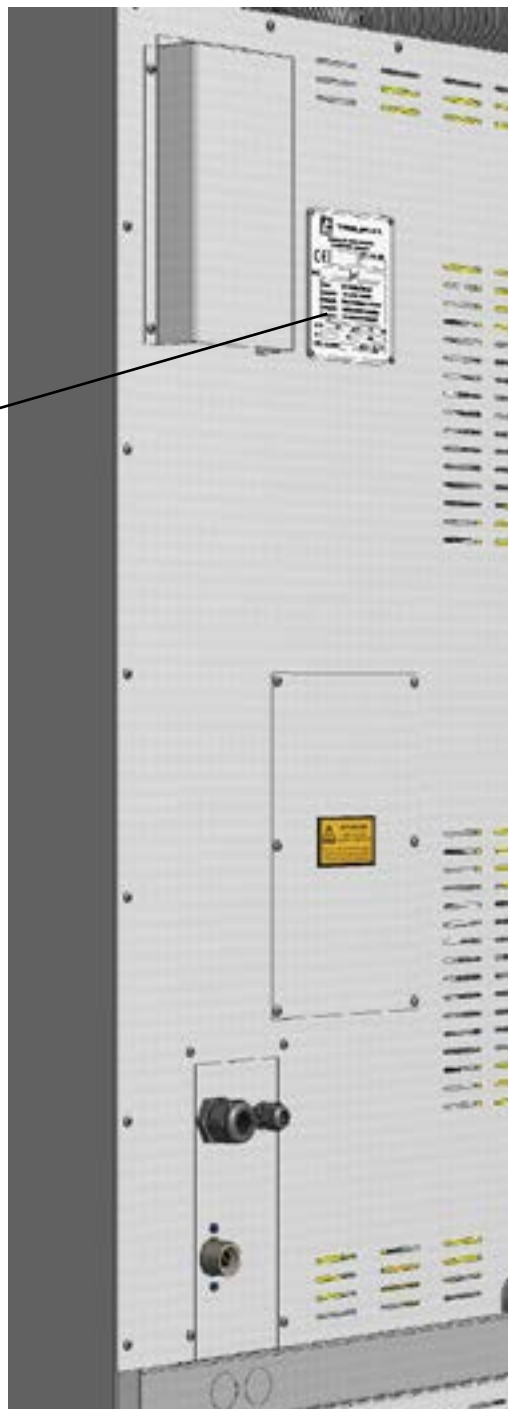
The tag contains oven identification data:

- type
- model
- serial number
- year of fabrication
- data required for correct oven connection to energy sources (e.g. electric power, water pressure, etc.);
- CE mark

CE MARKING POSITION

The CE plate is positioned on the rear closure panel.

		TAGLIAVINI	
Via Ponte Taro, 27/B - NOCETO - PARMA (ITALY)			
CE		Anno - year - jahr	
MOD		N°	
Class: see installed burner Catégorie: voir brûleur installé Kategorie: siehe installierten Brenner Categorie: vedi bruciatore installato Categoría: ver quemador instalado			
Qn	kW	G31	kg/h G20 G25 m³/h
Vac		Hz	kW
TYPE / BAUART		IPX4	kPa 50*300 





1.3 General warnings



This safety symbol identifies important messages presented throughout this manual. Carefully reading the following message is advised in order to prevent malfunctions or accidents.

Read this manual thoroughly before proceeding with the installation, connection, use, maintenance, and other oven interventions, carefully following instructions and warnings.

In particular, careful reading and rereading of paragraphs is advised (paragraphs are indicated by the § symbol): General safety rules (§ 1.5) and safety instructions (§ 10), for adequate knowledge of oven safety devices, as well as residual risks that the oven presents, enable correct use of the oven itself. The employer must provide operators trained for oven safe operation within laboratories where the equipment is installed and also knowledgeable of general and specific workplace risks; this manual can be a valuable support for the accomplishment of such a delicate task, even if, for obvious reasons, it cannot be considered a comprehensive list since it is not strictly related to the oven itself.

Check that all safety devices are present and functioning as described in this manual. If this is not the case please immediately contact the manufacturer.

This manual should be considered an integral part of the equipment intended for professional use and, therefore, can never replace user adequate preparation and experience.

As a recommendation keep this document in a dry place, known and accessible to employees. It's always a good idea to store the document in an envelope, allowing protection against dust, moisture and light, so as to ensure its integrity over time until the equipment is disassembled.

Keep a copy of this manual in the oven vicinity so all operators (installer, connection responsible, user, routine maintenance responsible, special maintenance responsible) may consult the document in a quick and easy way.

The manual contains all the instructions, data, information required by various operators, from installation to oven disposal with particular reference to safe and proper use, maintenance and cleaning included.

The manufacturer reserves the right to implement updates to the oven and, consequently, to the present document, without being required to update previous oven lots, and/or manuals, except in extraordinary cases.

To identify the tasks and responsibilities of each operator, we should define the following terms:

- **Technicians entrusted with equipment connections:** people with certain technical skills entrusted with equipment connections: electrical, hydraulic and chimney; registered accordingly, and therefore able to assume full responsibility for their actions.
- **Installer:** qualified technician who performs oven installation and commissioning in accordance with instructions contained in this manual.
- **User:** the one who, after carefully reading the manual, paying particular attention to General safety rules paragraphs (§ 1.5) and safety instructions (§ 10), uses the oven for its intended purpose.
- **Routine maintenance responsible:** qualified technician able to carry out oven routine maintenance operations according to this manual's instructions (§ 9).
- **Special maintenance responsible:** qualified technician, authorized by the manufacturer, capable of carrying out special oven maintenance (see example § 9).



The manufacturer does not guarantee local technical personnel suitability for oven installation and support services, although, all information regarding the equipment's proper connection is presented in a special section of this manual.

In this regard, it is advisable that a user appeals to an expert professional technician's advice regarding laws or local regulations.

The user must comply with local safety and health regulations regarding the working environment.



IMPORTANT: oven warranty is closely linked to compliance with all the rules referred to in this manual.

1.4 Intended use of the machine



IMPORTANT: the oven is designed exclusively for food cooking, more precisely for bread and pastry cooking, and must operate in accordance to the manufacturer's instructions. The oven should be used only for its intended purpose. Any other use is considered wrong and unsuitable.

The manufacturer cannot be held responsible for any damage caused by erroneous and inappropriate utilisation, such as:

- oven utilisation for non-alimentary product cooking;
- improper use by untrained personnel;
- modifications or unauthorised intervention;
- serious deficiencies in scheduled maintenance;
- use of non-genuine or different model parts;
- failure to respect the instructions, even partially;
- exceptional events.



ATTENTION: inserting alcohol solution in the baking chamber is dangerous due to the fact that high temperatures cause alcohol evaporation. This phenomenon may cause an explosion. For the same reason drying operations are not permitted (e.g. silicone baking pan drying). Furthermore, combustible substance insertion in the baking chamber is forbidden (for example sugar). These can create a fire hazard.



ATTENTION: the oven is not suitable for explosive environments



1.5 General safety regulations



The user is liable for the operations performed on the oven by neglecting the instructions given in this manual.

In particular, in order for someone to use the oven, he needs to have an understanding of the oven operational mode, control devices, safety standards and accident prevention as well as warnings regarding the oven.

Learn these concepts prior to equipment start-up.

Do not allow untrained people with lack of appropriate knowledge to use the oven.

Making sure the information is received, understood and put into practice is the employer's duty.

The main general safety rules are listed below:

- do not touch, much less use the oven with wet or damp hands or feet
- do not use the oven for drying products that are not food products
- do not introduce products containing solutions that are alcoholic, flammable or harmful to your health in the baking chamber
- do not allow children or unauthorised personnel to operate the equipment
- grip and adequately support the tins when removing them from the baking chamber in order to prevent them from falling out
- move the pans from the oven using high temperature gloves
- pay attention to the oven's hot surfaces: baking chamber doors, oven opening
- be careful during steam delivery, correct positioning is at the sides of the oven
- pay attention to steam and heat flow during the opening of the doors of the baking chambers
- do not insert tools or other objects between shields or moving parts
- do not tamper with safety devices
- do not remove oven protections (for example the peripheral panels, the crankcase covering the electrical connections)
- do not block ventilation openings, such as those on the column's sides and above, on the oven's front and on the profile connecting the oven to the floor
- disconnect the power supply before accessing the electrical panel
- position the oven, keeping a minimum distance from any wall as indicated in this manual



- place the oven at a safe distance from flammable surfaces or without heat resistance
- place the oven on a flat surface able to support the required loads
- do not operate the oven if the vapour drain has not been connected. In order to rule out any possible contact with moving parts (rotor), provide the vapour exhaust with a pipe, rigidly fixed and resistant to shocks, with a minimum length of 800 mm (31.5")
- do not put anything on top of the oven, do not step on the oven
- before performing cleaning or maintenance operations, disconnect the oven from the electric power supply network and the water supply
- any repair operations, adjustment and blocking of mechanical parts must be executed only after the power supply has been disconnected physically and visually in order to avoid oven start-up, even if by accident.
- do not wash the oven using water jets
- in case of oven failure and/or malfunction, disconnect the power supply, water supply and refrain from any attempt to repair or direct intervention. You will need to contact only qualified personnel
- do not apply accessories that do not comply with safety rules
- perform periodic maintenance as instructed in this manual

Emergency Operations in the event of a fire:

- disconnect the general power supply
- do not use water jets
- use dry powder or foam fire extinguishers.



1.6. Transport and handling

1.6.1 Assembled oven version.

The oven may be packed in wooden box supported by a pallet bench.



1.6.2 Transport (disassembled oven version)



The oven is shipped disassembled as in the photos above, the modules are packaged separately and are stacked from the bottom with the chamber modules, up to the hood extraction module at the top.



The oven is shipped fully assembled, or separated into its modules:

- BAKING CHAMBER
- CELL OR BASE
-

It is essential that the packages are not exposed to rain or subjected to relevant temperature variations. In fact, some packages contain electronic and electrical equipment that can be easily damaged by moisture and excessive thermal surge.

Product loading and unloading to/from their transport means and handling can be achieved by using a forklift truck equipped with suitable forks (length equal to at least 2/3 of the load) or by using a crane.

Lifting means and ropes must be adequately selected based on the weight of the package (the following table presents for each oven model, the weight and the size of the chamber module and hood module).

When transporting the products, all necessary precautions must be taken to avoid damaging the various parts of the oven.



Table Size and mass of chamber and hood modules

MODEL	Usable surface		Mass Chamber module		Mass Hood module	
	(m ²)	ft ²	kG	lb	kG	lb
5T 4060	1.2	12,84	195	429,8	12	26,4
5T 4666	1.5	16,05	195	429,8	12	26,4
5T 4080	1.6	17,12	210	462,8	13	28,7
5T 4676	1.7	18,19	210	462,8	13	28,7
10T 4060	2.4	25,68	250	551,0	12	26,4
10T 4666	3.0	32,10	250	551,0	12	26,4
10T 4080	3.2	34,24	270	595,1	13	28,7
10T 4676	3.5	37,45	270	595,1	13	28,7

1.7 Oven decommissioning

1.7.1 Prolonged inactivity

When preparing for oven prolonged inactivity, the energy source must be disconnected.

All oven parts must be wiped clean, lubricated, and protected by a waterproof material shell, so dust, insects, rodents, etc. are not able to reach the machine.

The protection process must avoid oven damage due to impact, tampering and various abuse. The place where the oven is located should be kept dry and protected from atmospheric agents.

Before oven operation is restored, a careful preliminary examination by specialist personnel should be carried out to make sure it is intact.

1.7.2 Oven decommissioning

Oven decommissioning must be conducted by a specialist firm authorised for waste disposal.

The same firm will conduct oven dismantling by separating the materials by their type, and send them to a more appropriate final destination: recovery or storage in landfill.



2 Technical Characteristics

2.1 Oven description



SUITABLE FOR COOKING, AT TEMPERATURES NOT HIGHER THAN 280 C°, BREAD AND PASTRY PRODUCTS, EXCLUDING FLAMMABLE, EXPLOSIVE OR ALCOHOL-BASED PRODUCTS SUCH AS CHERRY, COGNAC, ANISE, ETC. , AND THOSE THAT MAY POSSESS DANGEROUS CHARACTERISTICS (ENVIRONMENT POLLUTION IS ONE OTHER ASPECT) AS A RESULT OF TEMPERATURE INCREASE.

The product in question is a static modular oven, which is suitable for cooking, at temperatures not higher than 280 °C, focaccia and pastry products, excluding flammable and explosive products and those that may possess dangerous characteristics (environmental pollution) as a result of temperature increase.

The TERMOVEN is completely independent and can be supplied together with the basic module or cell and the extractor hood module; it is possible to overlay more chambers according to the needs of the operator.

The product to bake is heated by the air moved in the baking chamber by a fan, called a "recirculation fan", which forces the air to touch the heat exchanger with electrical resistors before being released back into the baking chamber through side grids arranged so the air evenly passes through all the tins before being sent towards the exchanger by recirculation fan extraction.

The baking chamber is enclosed with double, fire-proof metal panels and mineral wool placed between them that thermally insulates the oven from the environment and is accessible via a door, also in metal and insulated, with tempered glass to check baking.

The oven is loaded by placing the tins containing the product to bake in the chamber.

The oven is equipped with a steam generator to enable baking in a steam saturated environment, where necessary, and a valve extracting steam from the chamber where baking in a "dry" environment is required.

The chamber module can be equipped with one steam generator to allow cooking in an environment saturated with steam, where necessary, and valves for extracting the steam where it is required to cook in a "dry" environment or proceed to the final drying of the product.

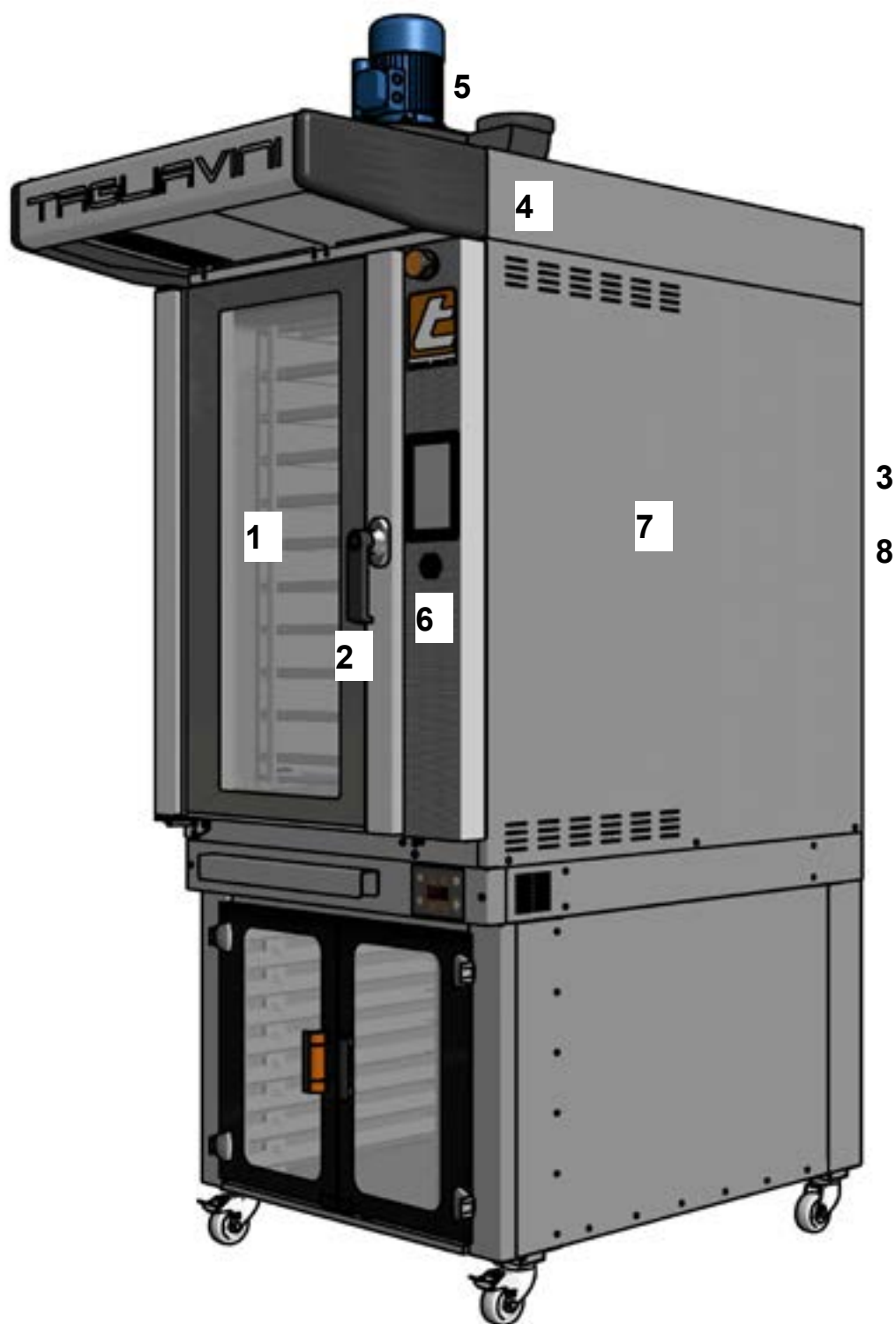
The planned duration of the oven is 15 years.

There are no general revisions during the life of the oven.

This manual deals specifically with the chamber module and the extraction hood module; the rising cell module has an exclusive separate manual.



TAGLIAVINI





The oven is formed of the following components:

BAKING CHAMBER

The baking chamber is built entirely in electro-welded, stainless steel sheeting, is hermetically sealed and adapted to contain the steam. It is enclosed by a thick thermal insulating material. Reinforced resistors (3) in stainless steel, adequately sized and placed on the bottom of the baking chamber, compose the heating elements. The chamber is heated by forced circulation of the hot air using one or more fans (8), also enabling optimal baking for a wide range of baking products. The door has halogen lights to light the baking chamber. In the back of the baking chamber, the special ducts allow the introduction and evacuation of steam.

BAKING CHAMBER DOOR

The door enabling access to the baking chamber (1) is equipped with large sized tempered glass, one inside, which can be opened for cleaning and replacement of the lights, and on outside. The door is equipped with an ergonomic handle with dual safety closure (2).

EXTRACTOR HOOD MODULE (4)

Entirely made out of stainless steel and with a depth between 80 (3.15") or 400 mm (15.7"), the hood is equipped with a vapour extractor (5) able to suck up the excess steam emanating from the chambers. The hood, in addition to vapour collection from the baking chamber, collects the vapour from the open release valve using a tube inside the oven.

COATING (7)

The coating can be made out of stainless steel panels at request. The long fibre mineral wool mattress insulation ensures low heat dispersal into the environment.

PANEL AND ELECTRICAL SYSTEM

Consists of an electronic control panel (6) placed on the right front column and a power panel placed always on the right side just behind the control panel.

The electronic control unit manages all oven functionality including armoured resistors control while the room temperature is kept constant.

The oven's electrical system is built in compliance with the European Union regulations in force.

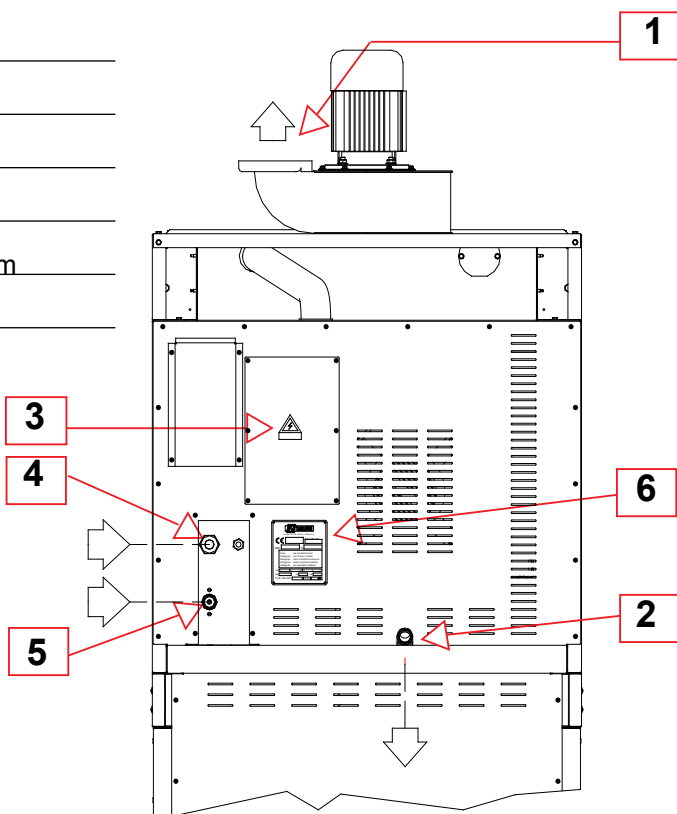


3. Installation standards

Before proceeding with oven set-up, make sure the doors allow oven or bulky part passage, and make sure the establishment is provided with:

3.1 Connections diagram

1. Steam output $\varnothing 120$ mm (4.72")
2. Steam condensate release (3/4")
3. Line arrival terminal board
4. Electrical connection cable input
5. Water input (3/4") only in models with steam
6. Identification plate





3.2 Electrical connection (3-4)

5-pole cable with earth and neutral, with a cross-section and insulation suitable for the installed power (see § 4.1), mandatorily provided with an upstream automatic circuit breaker (RCD - residual current device)

The connection to the oven's circuit breaker should be made with an appropriately sized cable (for sizing see the wiring diagram data), protected by a RCD (minimum 3 mm 0.12" contact opening) placed in an easily accessible position on a wall. The RCD must have an adequate maximum oven power carrying capacity and a breaking capacity suitable for the assumed short circuit current in the connection point. In addition, provide the oven with an equipotential circuit connection (general earthing of the building), using the appropriate terminal, identified by the symbol placed at the front bottom right-hand column of the oven (minimum cable cross-section 10mm²). The chamber modules are provided with a 1.5 m (59") silicon cable with 6mm² 0.09 inch² (see photo below)

IMPORTANT: - connecting the appliance to an effective earthing system is essential. Check the earthing system's efficiency, and in case of doubt, inspect with the help of a qualified person;
- do not pull on the electrical cables and keep them away from heat sources.

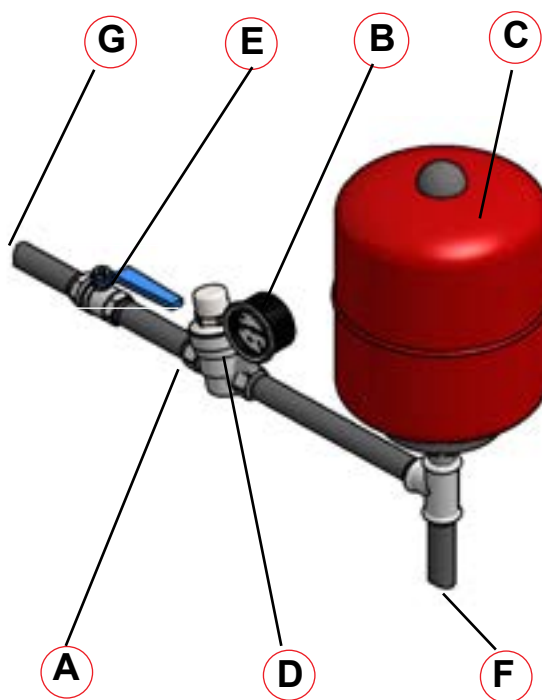




3.3 Plumbing connection (5)

G1/2 SS drinking water tube with pressure between 1.5 and 2 bar (21.7 and 29 psi), possibly obtained by installing a suitable pressure reducer. If the water hardness exceeds 12° F, a water softener is recommended to be installed upstream of the oven connection;

- A Filter
- B Manometer (0÷5 bar - 0÷72.5 psi)
- C 5 dm³ (0.17 ft³) water storage tank
- D Pressure reducer
- E Ball valve
- F Oven
- G Network



N.B.: for a steamer and water system longer operating life, the use of water with a total hardness below twelve French degrees 12° F - 6.5° dH (German degrees) or 8.4° Ck (Clark degrees) is recommended. Using water softeners with ion-exchange resins temporarily removes water hardness, but at the same time lowers PH. PH values lower than 7 indicate the acidic water therefore a corrosive water. Water acidity can be neutralised by polyphosphates that can be added using a suitable dispensing unit. We recommend in any case always to analyse the water using specialist personnel in order to avoid serious damage to oven parts and the water system.

3.4 Overflow drain

Serves as an exhaust for non vaporised water. The pipe work must be made out of seamless galvanised iron, 60 mm (2") diameter, placed flush with the floor as indicated in the connection plans. Keep in mind that the water discharged from steamers has a high temperature (80-90 °C - 176-194 °F) and in the case of steam generators, the discharged water/steam can even reach 120 °C (248 °F).

The condensate drain pipe should not: have bottlenecks or reductions in diameter, have slopes less than 4 °, have an excessive length (greater than 2m - 6.6 ft). A siphon drain should be mounted at the tube's point of insertion into the sewer, to prevent the ascent of malodorous vapours.



3.5 Steam release

Make sure that the discharge course wideness (curves, variations in cross section and slope etc.) is reduced to a minimum. Take care to ensure that the oven connection to the chimney base has an upward trend with a minimum 5 % slope, and proper insulation in order to avoid damaging condensate, noise and excessive temperature.

The pipes must be made out of stainless steel and suitably insulated to avoid harmful condensate, noise and excessive temperature.

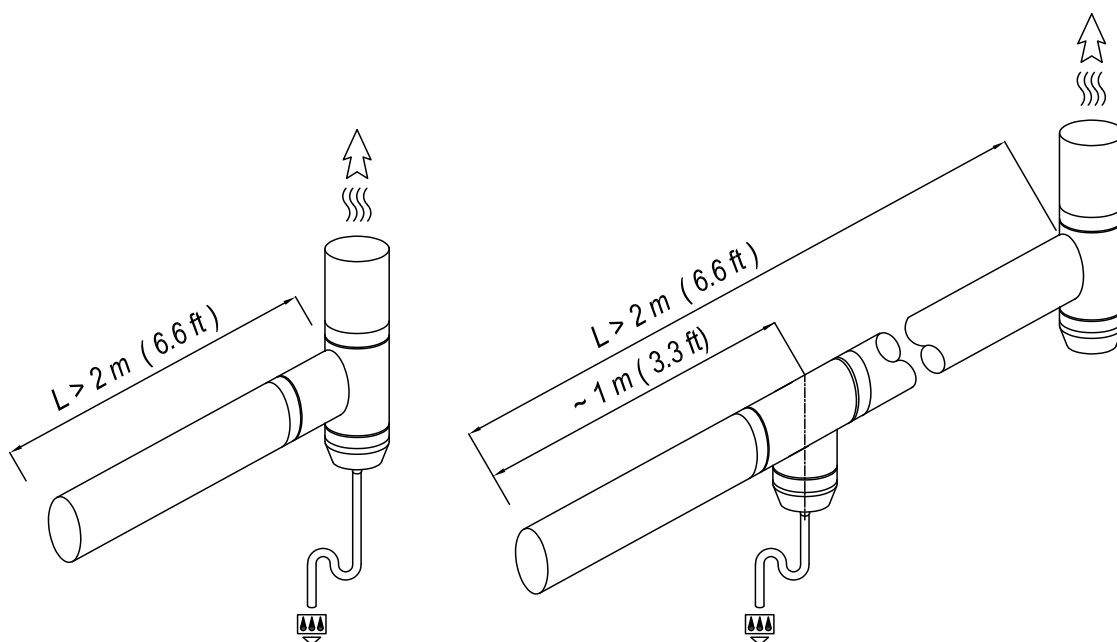
For any other information not specified, comply with legislation in force. The pipe's diameter will have to remain constant throughout its length, its dimensions being larger or equal to the extractor exit diameter, a minimum vacuum of 15Pa (0.17 mbar, 1.7 mm H₂O) must be ensured at the base of the pipe.

For horizontal tube sections smaller than 2 meters insert a cup with condensate drain at the base of the vertical pipe. For horizontal tube sections larger than 2 meters insert after about 1 meter from the extractor a cup for the condensate drain (see drawing).

The chimney must rise over the roof top at least two metres and be provided with an adequate chimney upwind. Mixing oven exhaust pipe vapours with fumes from other oven or combustion equipment is not recommended; it could create highly noxious gas and also compromise the chimney draft.



ATTENTION: in order to rule out any possible contact with the steam extractor moving parts, the extractor feeding must be provided with a rigidly fixed and impact resistant pipe with minimum length of 800 mm (31.5")



3.6 Establishment ventilation

The establishment must have ventilation slots greater or at least equal to the extractor's carrying capacity. This can be obtained through a socket equipped with a protection grid facing towards the outside of at least 500 cm² (77.5 in²).

If in the room of the oven there are other combustion appliances, air extractors, fume hoods or anything that extracts air from the room you have to increase the capacity of the air intake with the surface necessary for the other equipment.



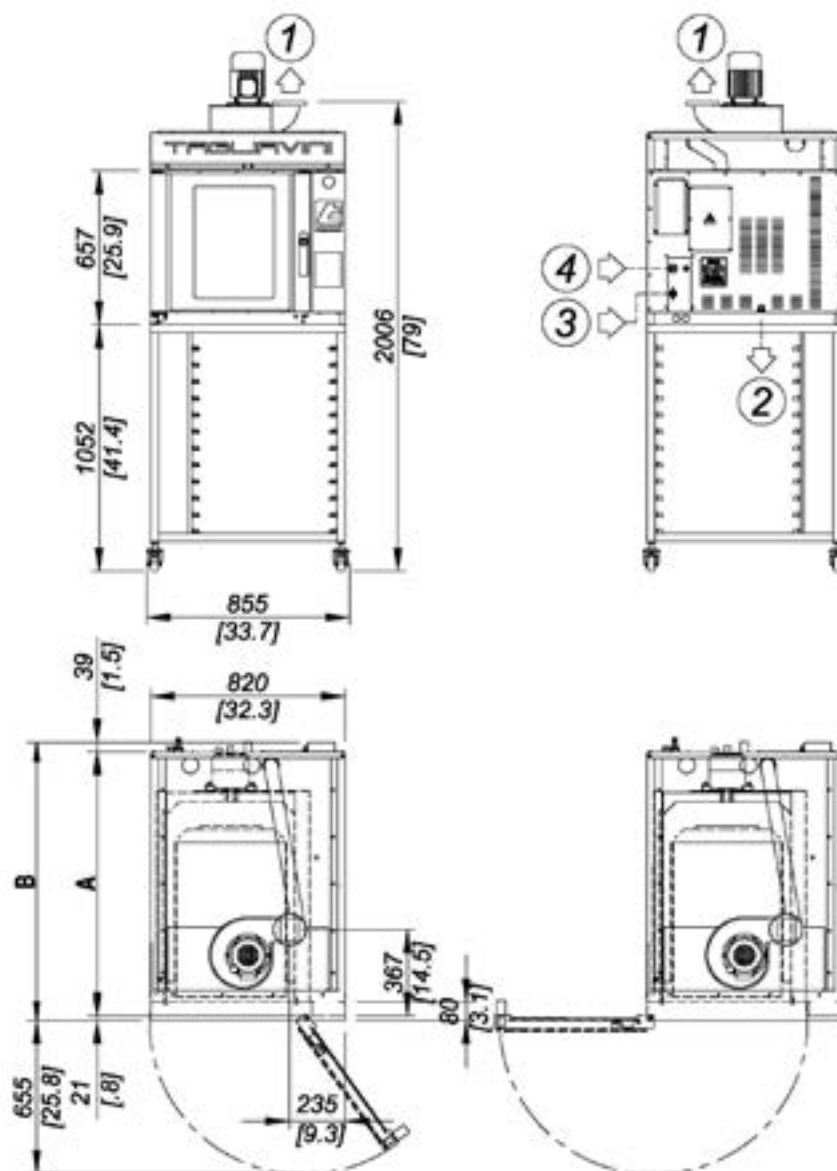
4. Identification page

4.1 Image of the oven





4.2 Oven general information

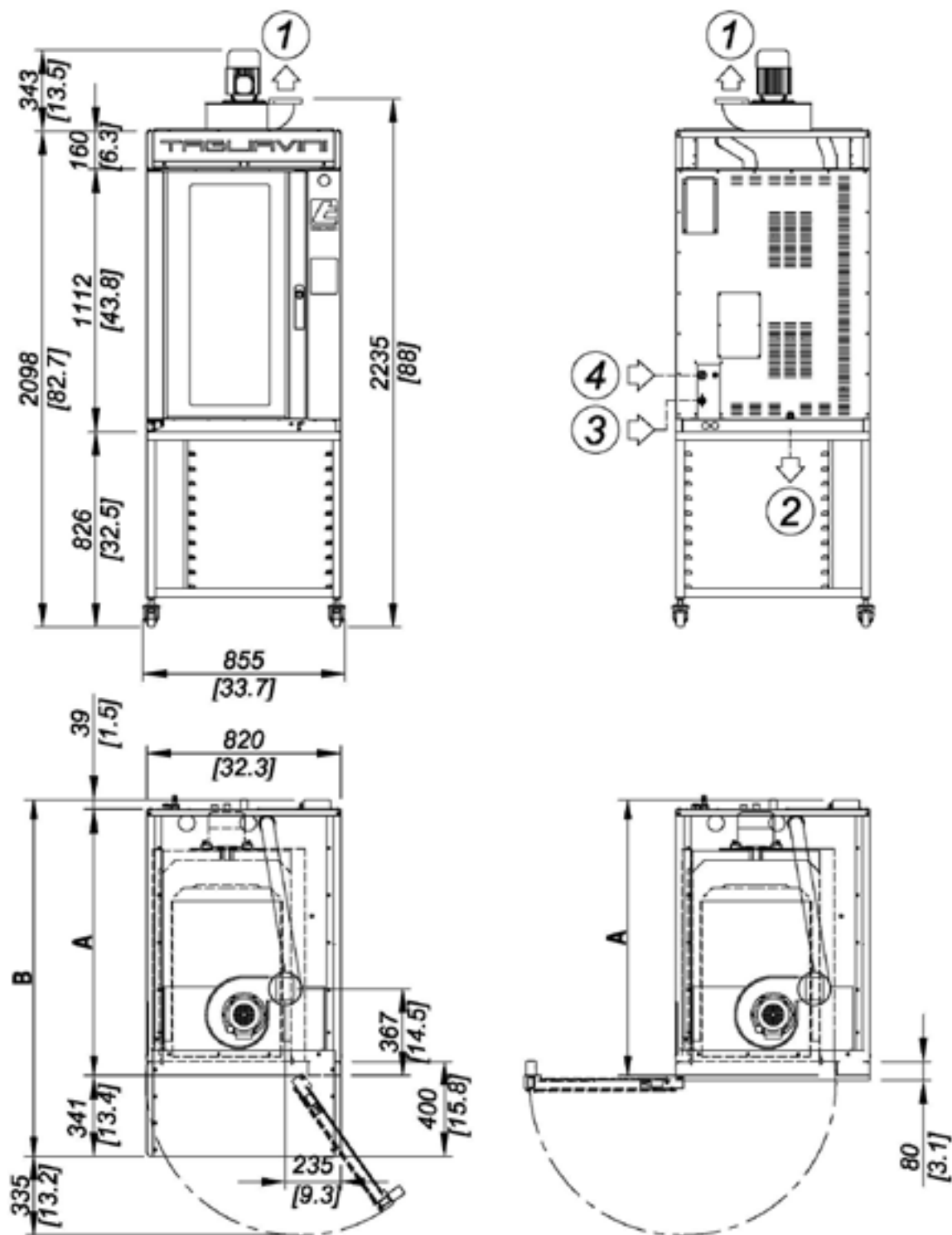


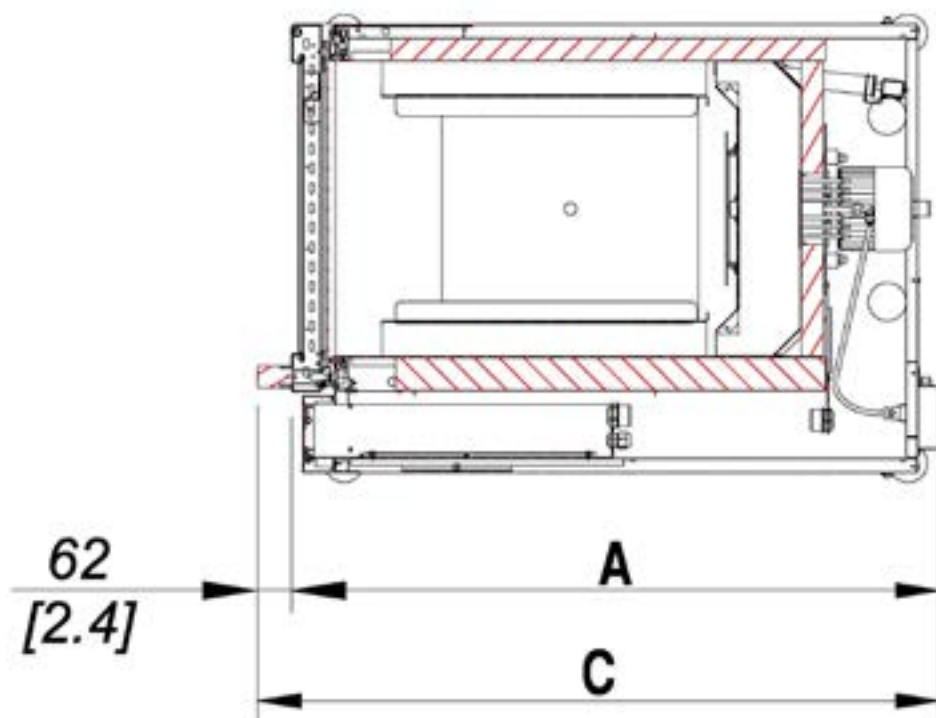
GENERAL TECHNICAL CHARACTERISTICS

Description	Data	Pos.
COLD WATER CONNECTION	Ø1/2" TUBE	1
NETWORK PRESSURE	1.5 ÷ 2 bar (21.7 and 29 psi)	
WATER DRAIN CONNECTION	Ø60 mm 2"G flush with the floor Fluid max. temperature 120 °C (248 °F)	2
ELECTRICAL CONNECTION	H=2300 (90.5") on the ground 00 mm	4
STANDARD ELECTRICAL VOLTAGE	400V 3N+E	



4.3 Oven model technical data





MODEL	ft²	5T 4060	10T 4060	5T 4080	10T 4080
Trays Dimensions	mm	400x600 - 460x660		400x800 - 460x760	
	inch	15.7x23.6 - 18x26		15.7x31.5 - 18x30	
Number of trays	N	5	10	5	10
Space between tins	mm/inch	90 / 3.54			
A	mm/inch	1150/45.3	1150/45.3	1290/50.8	1290/50.8
B	mm/inch	1360/53.5	1600/63	1490/58.7	1740/68.5
C	mm/inch	1212/47.7	1212/47.7	1352/53.2	1352/53.2
Dim. of biggest part	mm	820x1150x657	820x1150x1112	820x1370x657	820x1370x1112
	inch	32.3x45.3x25.9	32.3x45.3x43.8	32.3x53.9x25.9	32.3x53.9x43.8
Premises minimum height	mm/inch	2200/86.6	2600/102.4	2200/86.6	2600/102.4



Standard electrical voltage

400V 3N ~



Connections		10T 4060	5T 4060	10T 4080	5T 4080	
Steam release outlet	Ø	120 (4.72)	120 (4.72)	120 (4.72)	120 (4.72)	1
	Height	2235 (88")	2006 (81.1")	2235 (88")	2006 (81.1")	
drain pipe condensate water	Ø	1/2" G	1/2" G	1/2" G	1/2" G	2
	Height	900 (35.4")	1000 (39.4")	900 (35.4")	1000 (39.4")	
Water connection	Ø	3/4" G	3/4" G	3/4" G	3/4" G	3
	Height	950 (37.4")	1050 (41.3")	950 (37.4")	1050 (41.3")	
Electrical connection	Height	1050 (41.3")	1150 (45.3")	1050 (41.3")	1150 (45.3")	4

Energy characteristics		5T 4060	5T 4080	10T 4060	10T 4080
Cable minimum section					
connection type H05 RN-F	mm ²	230 3 Vac: 4x10 mm ²		230 3 Vac: 4x16 mm ²	
(max distance 50 m - 164 ft)					
Cable minimum section					
connection type H05 RN-F	mm ²	400 3+N Vac: 5x6 mm ²		400 3+N Vac: 5x10 mm ²	
(max distance 50 m - 164 ft)					
Oven use max temp.	C°/F°	280/536			
Temp. gradient (ascending no load) °C/min - F°/min		10/13 - 50/55.4			

ELECTRICAL DATA

MODEL	ELECTRICAL POWER		TOTAL ELECTRICAL POWER	ELECTRIC ABSORPTION		
	HEATING ELEMENTS	MOTORS		400V-3PH	220V-3PH	208V-3PH
	kW	kW	kW	Ampere		
5T - STD	6	0.37	6.4	9.2	16.8	17.8
5T - MAXI	9	0.37	9.4	13.6	24.7	26.1
5T - STD -INV	6	0.75	6.8	9.8	17.8	18.9
5T - MAXI-INV	9	0.75	9.8	14.1	25.7	27.2
10T - STD	12	0.75	12.8	18.5	33.6	35.5
10T - MAXI	18	0.75	18.8	27.1	49.3	52.2
10T - STD -INV	12	1.5	13.6	19.5	35.4	37.5
10T - MAXI - INV	18	1.5	19.6	28.1	51.2	54.1



4.4 Extractor hood and accessories

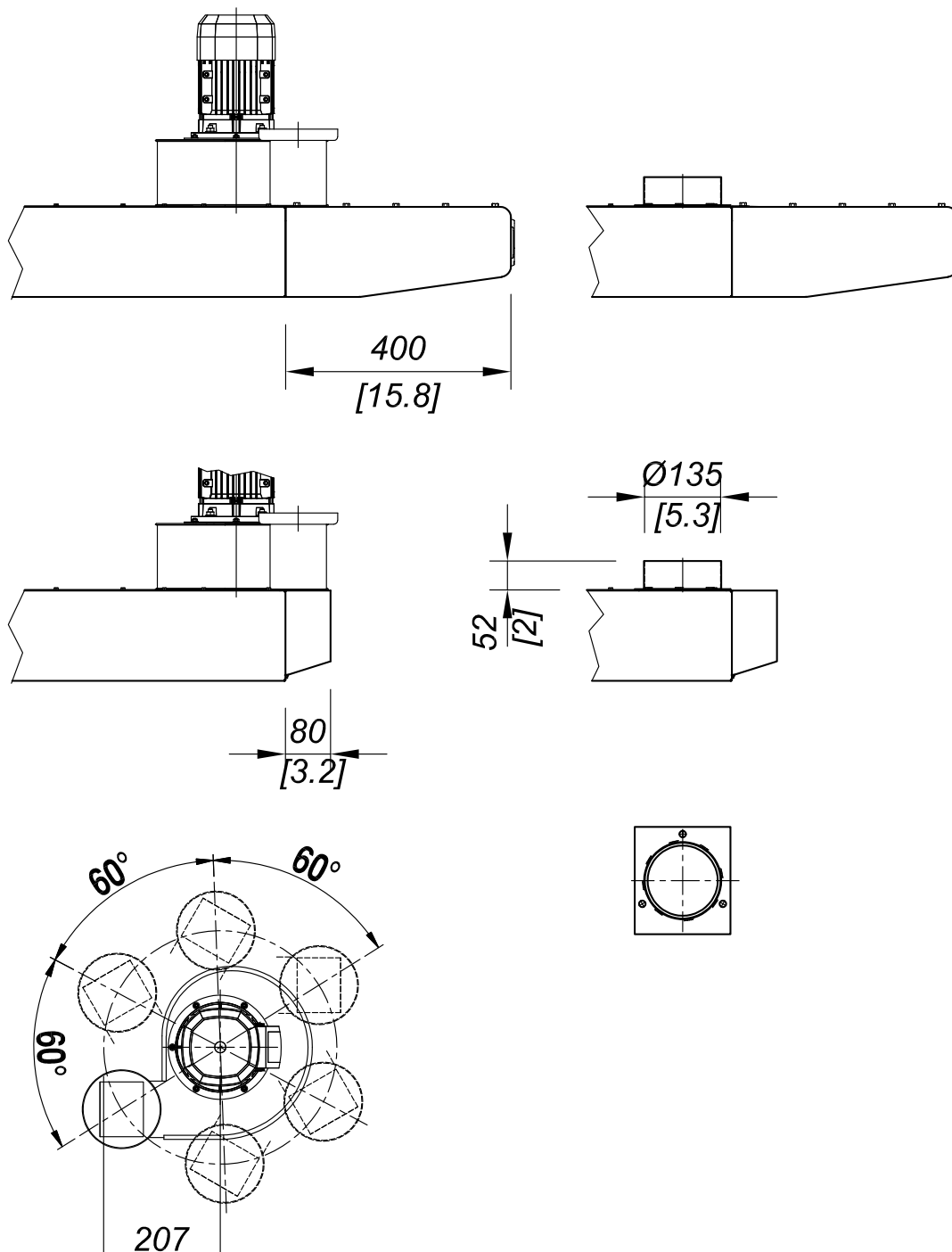
Suitable for the collection and evacuation of vapours, it is insulated in order to protect the upper chamber and is available in two basic versions: 80 mm (3.2 inch) protrusion and 400 mm (15.7 inch) protrusion (the top of the wider surface and allows for greater collection). It is possible to mount the vapour extractor in the two extractor versions (always on request).



EXTRACTOR HOOD DEPTH 400 mm (15.7 inch)

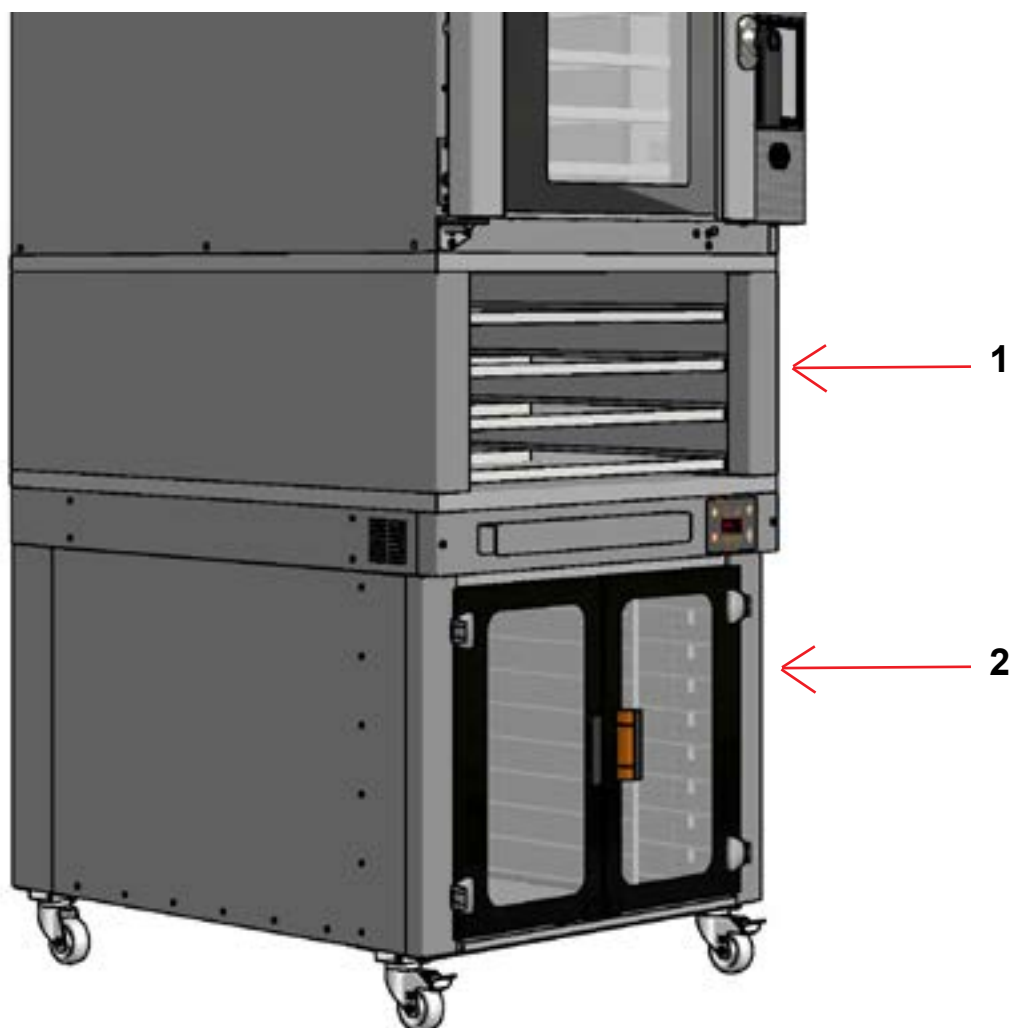


TAGLIAVINI



EXTRACTOR MOD. VPA160/MO-RD KW. 0.25/4P B571B4 - MONO-PHASE V.230 / 50 HZ
EXTRACTOR CAPACITY 12 m³/min (423 ft³/min)= 720 m³/h - pressure 22 mmH₂O (0.031 psi)

N.B.: The solution without an extractor should ensure good extractor hood/chamber steam discharge draught conditions by connecting a centralised extractor system or another similar system.



- 1 Intermediate tin support module, particularly suitable for a 5 tin oven (height 407 mm).
- 2 Leavening cell module with heat, humidity and ventilation for perfect leavening of the product (see specific manual)



5 OVEN ASSEMBLY



ATTENTION: assembly and first oven start-up should be performed by personnel qualified and authorised by TAGLIAVINI.

During oven installation, it is mandatory to comply with the specific regulations in force, especially those related to accident prevention.

5.1 Oven assembly instructions

BEFORE STARTING THE INSTALLATION, THE TECHNICIAN MUST MAKE SURE THAT

the floor should be level and in heat resistant material;
adjacent walls should be flame-proof, otherwise you should adopt adequate precautions such as applying heat resistant guards.

ASSEMBLY

Unpack the modules (chambers, extraction hood module base or cell)

Make sure the parts are intact

Make sure that all packaging materials (wood, nails, plastic, etc.) are out of children's reach and are placed in the appropriate waste collection points, especially if they are polluting or non-biodegradable.

Position the oven taking care to respect minimum clearance distances indicated in this manual

Assemble the components of the various modules according to the instructions received from the company TAGLIAVINI, taking care in particular:

- to use gloves to handle the pieces to be assembled;
- to perform the sealing of the flexible corrugated coupling hose of the exhaust valves with extreme care, thus minimizing steam loss, as steam could be damaging.

Remove the protective foil from the sheets, if any, and should remain any residues of glue use a suitable solvent to remove it and dry.

Assemble the electrical system following the wiring diagram

Do not obstruct ventilation of heat dissipation gaps or openings (such as those placed on the lateral panels and above the extraction hood)



ATTENTION: Rock wool used as an insulating material may cause irritation on contact with the skin and respiratory system. Use appropriate individual protection devices such as mask and gloves.

USER INFORMATION

- Provide the user with information regarding the appliance, its operation and use and provide the instruction booklet.
- Take note that changes to installation environment can influence air draft and steam evacuation



6 OVEN CONNECTION

6.1 Norms, technical regulations and directives

Connecting the oven to energy sources must be conducted in compliance with the rules presented below:

- standards in force in the concerned domain;
- directives and regulations of the local electricity and water providers;
- accident prevention regulations in force;
- for Italy Law 37/08

6.2 Oven connection instructions

The oven must be installed in a room compliant with the following regulations.



IMPORTANT: the establishment where the oven is installed must be complete with openings able to provide the steam extractors with the necessary air.

If other combustion equipment and/or more air extractors are installed in the room where the furnace is operating, make sure that air inlet openings have been provided, their size being able to ensure proper combustion for all the equipment and air exchange suitable for the extractors.

The oven bearing surface must be flat and suitable to support the loads within the prescribed safety margins. The walls adjacent to the oven should not contain flammable materials, otherwise implement adequate precautions such as heat radiation protections. Before the technical staff in charge of installing the equipment arrives, the establishment must be provided with all the energy supply connections as indicated in the diagrams.



IMPORTANT: oven connection to power supply, water supply and fumes exhaust chimney must be carried out by professional technicians, capable of carrying out operations in compliance with high standard technical requirements and therefore assume full responsibility, releasing an appropriate declaration of conformity.

BEFORE STARTING THE CONNECTION, THE TECHNICIAN MUST MAKE SURE THAT:

- the room complies with the standards in force and, in particular, is fitted with a suitable air vent from the outside for air exchange for steam suction device;
- the unit's data plate is compatible with the power and water supply;
- the connections have been prepared as specified in this manual (electricity, water) ;
- the steam exhaust matches the requirements;
- strict compliance with protection requirements is guaranteed.



7 FIRST START-UP (or after long inactivity periods)



The first start-up of the oven must be performed by a qualified technician

7.1 First start-up

7.1.1 Preliminary technical checks

- a) Check that the motor of the vapour extractor is properly connected according to the available voltage supply.
- b) Check that the temperature control probes (thermocouples connected to the circuit board panel) are positioned regularly in their seats.
- c) The connections to energy sources and related vapour and non vaporized water drains are executed (if steamers are present in the chambers or cell): the oven is ready for the first start.
Supply energy (electricity, water) to the oven.
- d) Activate the main switch of each chamber module, positioned on a wall of the room in the vicinity of the oven (switch to position "1").

7.1.2 First start-up

Once all the preliminary checks have been performed, start-up the heating gradually according to the following rules:

- open the valves releasing steam from the chamber;
- activate the vapour extractor (if present);
- ventilate the room (open the doors and windows);
- heat oven at a temperature of 110° C (230 °F);
maintain the temperature for 1 hours without opening the doors of the baking chamber;
- after the previous point, set a temperature of 220° C (428° F)
- leave the oven at this temperature for 1 hour by opening the door of the chamber several times.
- After all the moisture in the insulator and inside the baking chamber has evaporated, the oven is ready for use.



ATTENTION: NEVER EXCEED 280°C (536° F).



ATTENTION: fumes are released during first heating. In order to avoid poisoning: properly ventilate the oven chamber and do not stand in its vicinity.

IMPORTANT: when the oven operation comes to an end, we recommend you:

- close the water tap;

and in case automatic operation is not used

- disconnect the oven's power supply by acting on the main switch.

For subsequent ignitions set cooking desired temperature by using the control panel.



8 HOW TO USE THE OVEN

8.1 DAILY SWITCH ON

Power-on the oven 20-30 minutes before you start baking, due to its considerable size. It can be performed either manually or by means of programmed ignition. Once it has been powered on, the oven will set itself to the set temperature and shall maintain it by turning on the heating elements at intervals on the top and platform of each chamber. In any case it is necessary to open the main water valve, closed at the end of the previous session. After reaching the operating temperature, wait at least 10/15 minutes before performing the first baking, to allow the heat inside the oven to become even for optimal performance.

LOADING THE OVEN - COOKING - UNLOADING THE OVEN

Before loading the oven make sure that the discharge valves are closed to ensure proper vaporisation. You are advised to quickly place the tins in the oven to avoid excess cooling of the baking chamber. During baking do not open or close the door.



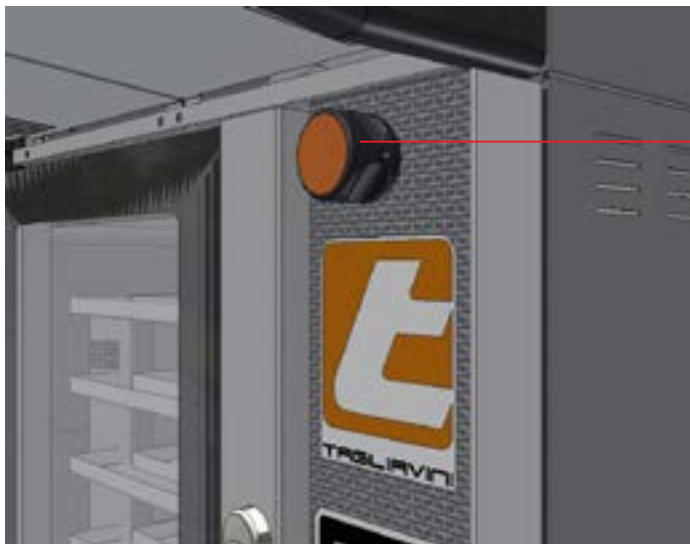
ATTENTION: CARRY OUT THE OPERATIONS WITH HEAT-PROOF GLOVES



STEAM EXTRACTOR

The overlying hood can be fitted with an extractor for vapour escaping from the oven door and chambers. Vapours in the rooms are sucked into the hood through a stainless steel tube connected to the steam discharge valve, near the opening, on the left side of each chamber module. The steam valves are closed when the lever is pushed completely toward the oven and opened when the lever is pulled toward the operator. It is recommended to maintain the steam extractor on during the unloading phase in order to limit vapour diffusion in the work area. The extractor can be switched on even when the steam exhaust valve opens in order to dry the product. Do not maintain the steam extractor switched on during cooking in order to avoid the formation of an upward air current which could cool the cooking surface from the loading opening.

MANUAL STEAM DRAIN VALVES



A

The baking chamber is provided with a vapour evacuation valve used accordingly to the cooked product. Its opening is highlighted by the control lever's (A) protuberant position, located on the right column of the oven, while valve closing is achieved by pushing the control itself toward the oven until it stops. In addition to the two extreme positions you can get more openings, leaving the control lever in intermediary positions, to allow fair and balanced steam evacuation from the chamber and avoid the chamber's excessive cooling.

8.2 Shut down

Must be performed manually and implies main water valve closing (if vapour generators are present). You are advised before switching off the baking chamber to set the baking parameters (which can be saved on the command panel) such as temperature and time to the desired values before switching back on.



DURING THE NEXT SHUT DOWN IN ORDER TO END THE OPERATION CLOSE THE MAIN WATER VALVE AND DO NOT USE THE MAIN SWITCH TO INTERRUPT THE POWER SUPPLY TO AVOID CONTROLLER BACKUP BATTERY DISCHARGE.



9 ROUTINE AND SCHEDULED MAINTENANCE

The information below concerns the user and the routine maintenance operator.

By routine maintenance we intend all the operations carried out periodically in order to maintain efficiency and oven overall good condition, which do not require specific preparations and as such may be performed by non-specialised staff and, therefore, also by ordinary users and/or maintainers provided that this manual's instructions are scrupulously complied with.

Instructions for proper cleaning of stainless steel parts.

In order to ensure long life and good health to the oven's stainless steel parts, it is essential to carry out effective and constant cleaning operations, especially for the parts that come most frequently in contact with substances considered aggressive to stainless steel.

In general the following operations are considered sufficient: wash with soap and water and rinse properly with a cloth

soaked in water and a final dry. You can also wash the surfaces in warm water with a mild dish washing detergent. You can also perform the rinsing by soaking a cloth in a solution of water and sodium bicarbonate and performing more passes, gently and repeatedly, in correspondence of the areas to be cleaned. The cleaning operation must be completed by washing, even in this case, with a soft cloth soaked in water and the final drying phase (phase particularly important for those areas where the water has high hardness and leaves deposits of limescale).



ATTENTION

To avoid premature wear and tear and deterioration of stainless steel parts related to the triggering of corrosion it is essential to respect the points listed below:

- do not use scourers, brushes or abrasive discs made from other metals or alloys (e.g. common steel, aluminium, brass, etc.) or tools that have previously cleaned other metals or alloys, which in addition to scratching the surface, would cause the contamination, with consequent unsightly stains. Scourers and brushes in stainless steel are suitable because they do not contaminate the surface, but it is required to pay attention to avoid scratching the surfaces.
- do not use hydrochloric acid, sulphuric acid, muriatic acid and halogenated organic acids. Also avoid contact with hydrochloric acid vapours, like those emanating from floor washing . In general, direct use of cleaners containing chlorides on stainless steel should be avoided, if used at least provide short contact periods and conduct an abundant final rinse.
- do not use abrasive coated detergent powder that might compromise the aesthetics and, in general, the quality of the surface finishing (for example satin-like and scotch brite finishing).
- do not use detergents for silver or other metal alloys.



ATTENTION: it is absolutely forbidden to wash the oven with water jets.



9.1. Essential safety standards

Please read paragraphs General safety standards (§ 1.6) and Safety instructions (§ 11) in order to make sure that the user or routine maintenance operator performs the operations safely.



IMPORTANT: All cleaning and maintenance operations must be performed after:

- the oven's power supply has been disconnected;
- closing the water tap;

9.2 Cleaning operations

9.2.1 Door cleaning

Clean the oven doors weekly, or at every 60 operation hours, depending on baked products.

Oven internal and external cleaning operations must be carried out using heat-resistant gloves, a soft cloth, warm water and detergent in order to remove dirt. Absolutely avoid the use of cold water because it could induce a high thermal shock and cause sudden glass shattering

9.2.2 Cleaning control units

It is recommended that you use mild detergents and a soft cloth (do not use rough or abrasive cloths). The cleaning should be performed at least once a month, removing any stains

N.B.: do not use solvents to clean the control panels



9.2.3 Stainless steel front side cleaning

When cleaning the oven's metal front panel, except the two crankcase silk-screened parts, it is recommended that you use a stainless steel spray product that will simultaneously clean and polish the surfaces.

Before cleaning the front panel columns, remove and open the two lateral silk-screen crankcases, to prevent the stainless steel product ruining the silk screen printing.

Cleaning operations are to be carried out at least once every 3 months,

Thoroughly clean the grills under the extractor hood, that can be removed by unscrewing the "V" screws (see figure below).



9.2.4 Silk-screened and glazed part cleaning

When cleaning the oven's silk-screened and enamel parts (for example, the front command column see part. S photo above), it is recommended that you use mild detergents and a soft cloth (do not use rough or abrasive cloths). The silk-screened column for better cleaning can be removed from its compartment, simply by unscrewing screw V1 (over and under the column) and pulling the column outwards.

The cleaning should be performed at least once a month, removing any stains

DO NOT USE ALCHOL, THINNERS OR STRONG DETERGENTS



9.2.5 Cleaning the glass of the lamps

Clean every 2 weeks, or every 50 hours, the glass of the lamp (L) located on the right side of the loading opening, inside the baking chambers.

It is advisable that you wait some time after the oven's operation has been disabled to conduct washing operations. This manoeuvre should be carefully considered:

- Wait until the oven has cooled down because the inner room temperature can be very high and dangerous.
- Proceed with the utmost attention considering the position of the lamps in order to avoid any risk of burns
- Work with care as short circuits or thermal shocks may cause glass breaking.

For this purpose it is recommended to simply use a cloth soaked in liquid detergent or spray (use only suitable detergents to wash surfaces that may be in contact with food).

Always rinse surfaces using a cloth soaked in warm water (40-50 °C - 104-122 °F). Cold water can cause the glass to break or crack.



After opening the door, release the inner glass (18) from the coupling clips (23)



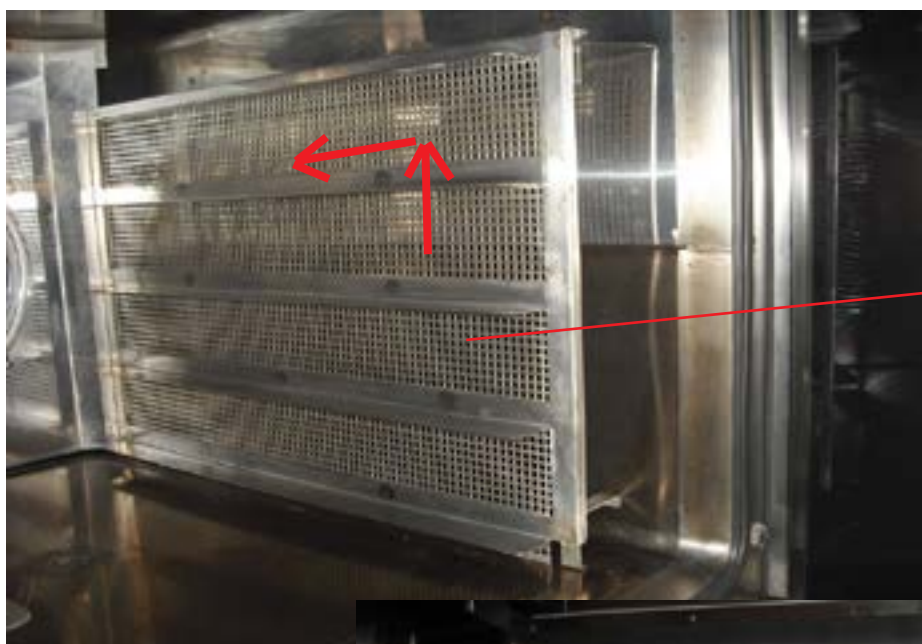


9.2.6 Cleaning the baking chambers

Clean the parts in contact with the sealing paste at the end of the shift or day. Use a water dampened cloth or products suitable for the food industry to remove bread or grease residues from the baking chamber. To facilitate cleaning inside the chamber, the side tin support "G" grids can be removed by uncoupling them from their compartment by lifting them and moving them towards the centre of the chamber, then removing them from the chamber.



ATTENTION: execute operations using gloves and if possible when the oven is cold!



G

This is the inner chamber after removing the tin support grids.





9.2.7 Cleaning the trays, pans

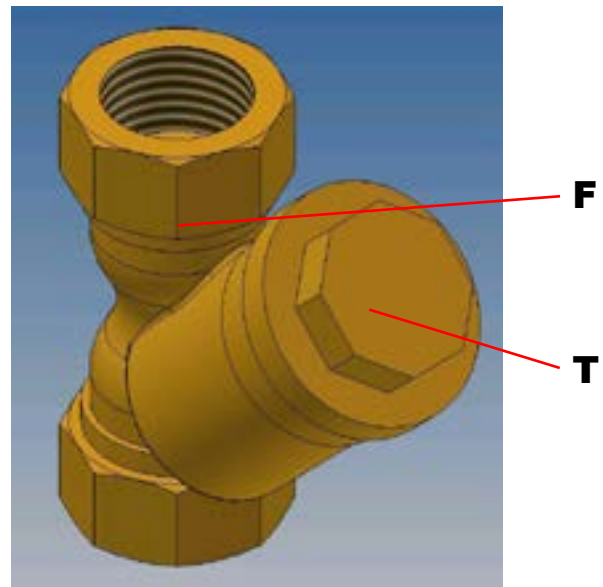
For tray cleaning use warm water (60 °C - 140 °F maximum) and a rag. Low concentration, moderate foam alkaline detergents can be used for pan cleaning because they do not contain aggressive substances. These detergents are designed to clean articles that may come in contact with food. It is obvious that in this case a thorough rinsing using tap water and consequent drying must be performed. It is recommended not to use steam. Once the tin's non-adhesive coating wears off, entrust the tins to a specialized company that will provide coating regeneration.



ATTENTION: for trolley and tin use and maintenance, in particular tins treated with non-adhesive coating, it is recommended to refer to the instructions provided by the manufacturer or supplier.

9.2.8 Water filter cleaning (figure below)

Once every two months, or after every 500 operation hours, the frequency is variable, based on steam utilisation and used water quality, clean the water manifold filter (F). To achieve this, remove the lower blocking panel thus accessing the valve compartment where the solenoid valve manifold is located, unscrew the cap (T) and pull out the filter. Wash the filter using tap water and remove possible clogging, reassemble everything as it was originally. Before you reinstall the filter cap seal the filter's thread using Teflon.

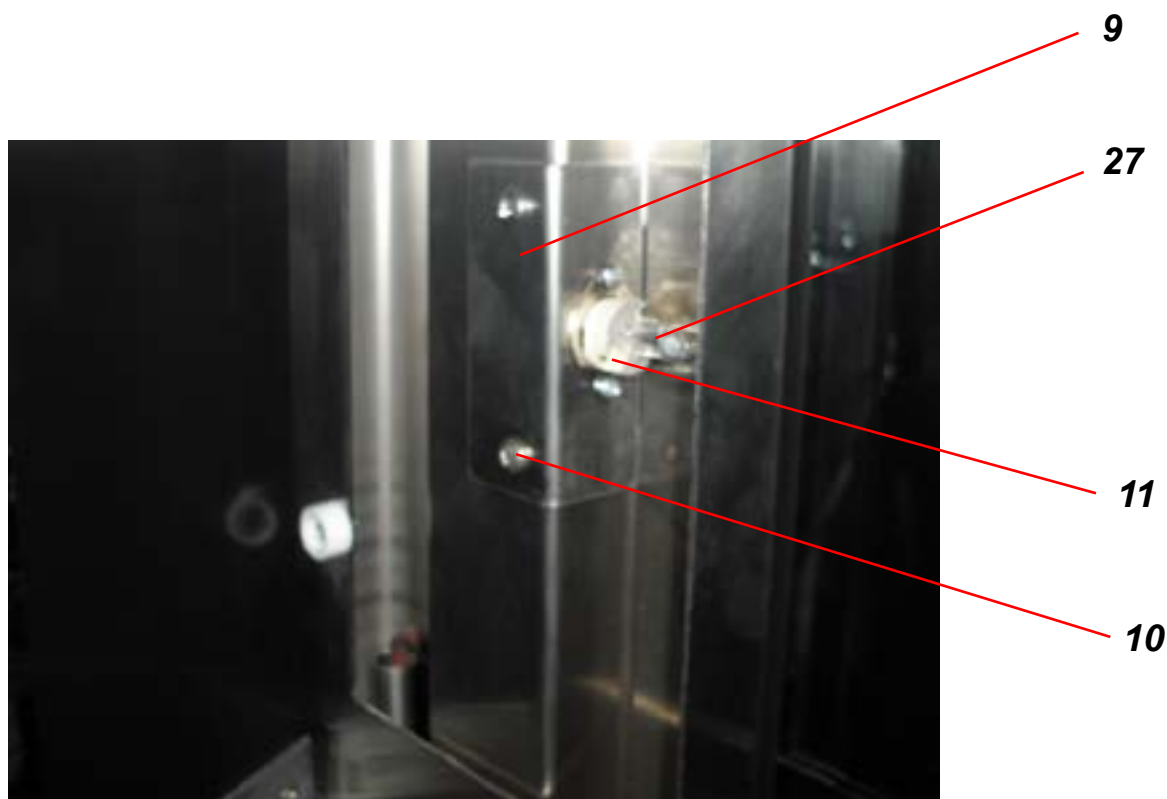




9.3 Replacing the lamps - baking chamber lamps

The lamps are low voltage and of halogen type for high temperature with high performance.

Having opened the door and the inner glass, following the instructions in § 9.2.5 you can proceed as follows:



Remove the halogen light 24V 20W (27) from the light holder (11). If the light holder is damaged (11) unscrew the 2 screws (10) and remove the light holder support (9), then replace the light holder (11) by unscrewing the specific screws and disconnecting the inner cable.



N.B. DO NOT TOUCH HALOGEN LIGHTS WITH YOUR HANDS BECAUSE THIS COULD CAUSE PREMATURE BREAKAGE. USE A PAIR OF LATEX GLOVES TO HANDLE THE LIGHT OR USE ITS PLASTIC CASING TO HANDLE IT



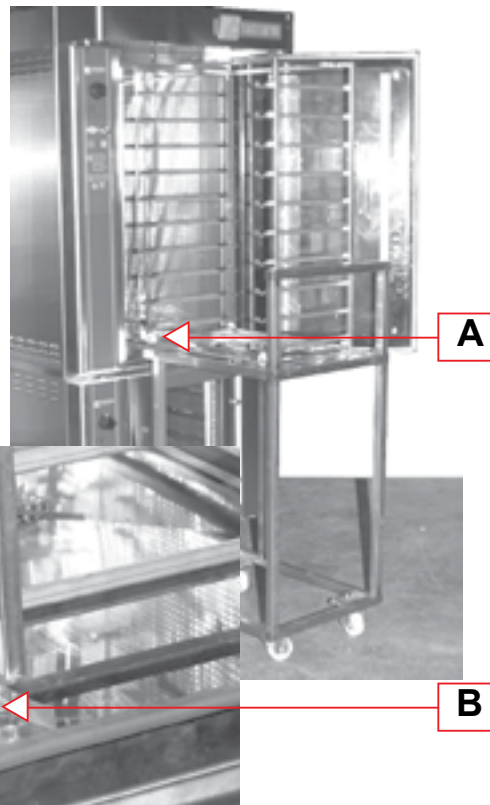
ATTENTION: EXECUTE OPERATIONS USING GLOVES AND WHEN THE OVEN IS COOL!



9.4 Tin placement trolley detail (optional)

To replace the standard supplied tin guides, the tin placement trolley (Ref.A), enables placement of the tins directly from the leavening cell to the baking oven, without removing the tins from the trolley.

The introduction of the tin support trolley is guided by the reference guides (B).



DANGER OF BURNS!
WHEN EXTRACTING THE TROLLEY,
USE IS COMPULSORY OF PROTECTIVE
HEAT-PROOF GLOVES.

9.5 Steam intake and oven steam release detail

To free the water to vaporise intake pipes, you need to:

- Unscrew the self-tapping screws "A"
- Remove the spray protective casing "B"
- Unscrew the plastic joint "C"
- Clean the intake tube corresponding with point "C" using a tool of adequate length and diameter (screw driver or iron wire) moving back and forth along the entire length of the tube, freeing its interior of any obstructions and scale.
- Check the efficiency and cleaning of the solenoid valve pipes corresponding with point "E"
- Check and, if necessary, clean the small plastic tube "F"
- Check and, if necessary, clean the condensate water drainage tube "D"

The valve releasing steam from the baking chamber works on open, by pressing the specific key on the command panel, by intaking cold air from the valve "G" opening that through tube "L" is sent to the oven fan chamber. Here, the increase in pressure opens the shutter, point "H" and is expelled from here via the flexible tube to the suction hood collector and other piping.

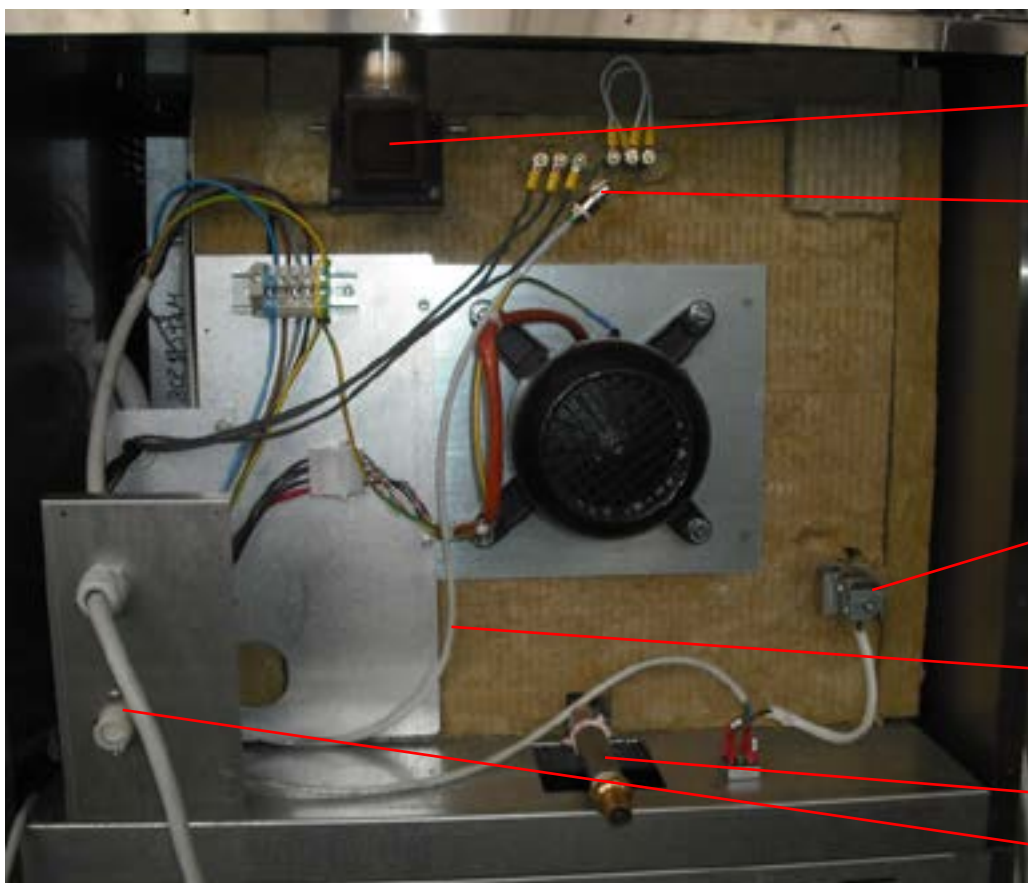


L



A

B



H

C

G

F

D

E



IF FOLLOWING THESE CONTROLS THE ANOMALIES FOUND PERSIST, YOU NEED TO CONTACT TAGLIAVINI CUSTOMER SERVICE



9.6 Extractor hood detail

In case suction is not sufficient thus effectiveness being reduced, check extractor correct operation as well as an outlet duct cleaning. If the extractor shows signs of an irregular or slow rotation, it will be appropriate to find the improper operation cause and possibly replace the extractor. To do this, after the condensate collection and drain tubes have been disconnected, disconnect the extractor from the steam extractor hood's nozzle by unscrewing the appropriate screws.

For a simple rotor replacement (most of the time the cause of malfunctioning), or the motor, just unscrew the nuts and pull the motor-rotor assembly, once removed the motor will be separated from the rotor and from the mounting flange. When cleaning the rotor avoid losing or moving the balance counterweights used for silent extractor rotation.

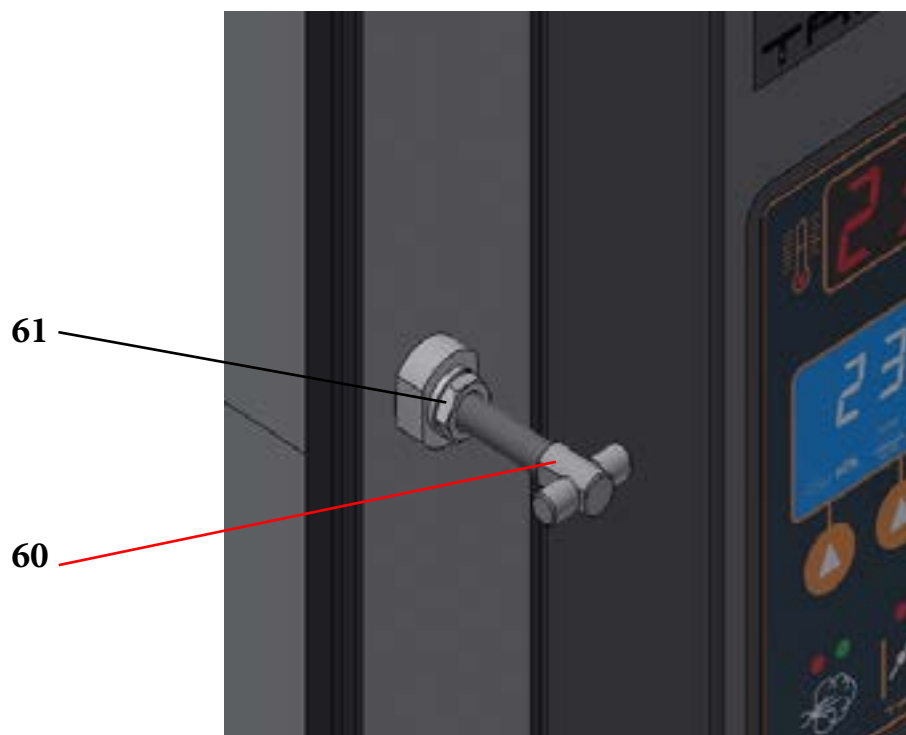


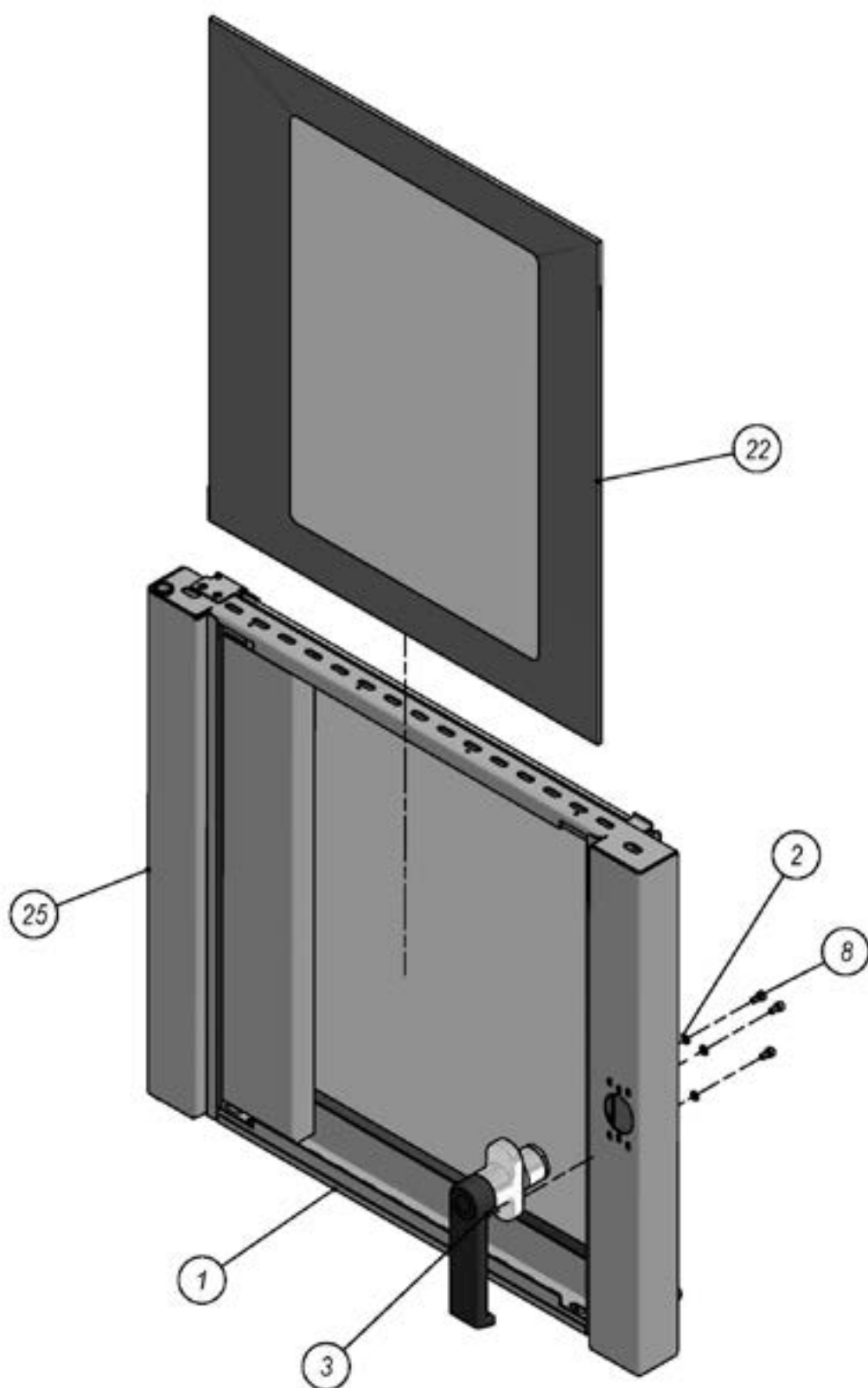


10. 10. The oven in detail (parts, units and diagrams)

10.1 Detailed view of the door (outer) and handle

<i>Description</i>	<i>Code</i>	<i>Position</i>
External glass stop sheet metal	0029994019	1
Washer M5 UNI1751	A1720024	2
Closure 6302-02.0010 DX RAHRBACH	A1020299	3 D
Closure 6302-02.0020 SX RAHRBACH	A1020298	3 S
Screw TCEI M5x10 UNI 5931	A1610200	8
Door outer glass 4060 4666 5T	0029954013	22-5T
Door inner glass 4060 4666 10T	00299X4004	22-10T
DOOR CASING UNIT TTV40-46 5T	0029954020	25-5T
DOOR CASING UNIT TTV40-46 10T	00299X4010	25-10T
LONG NASELLO 6302-02.0054 L=70 MM	A1020302	60
NUT P.G. INOX A2 M 8 UNI5588	A1670028	61

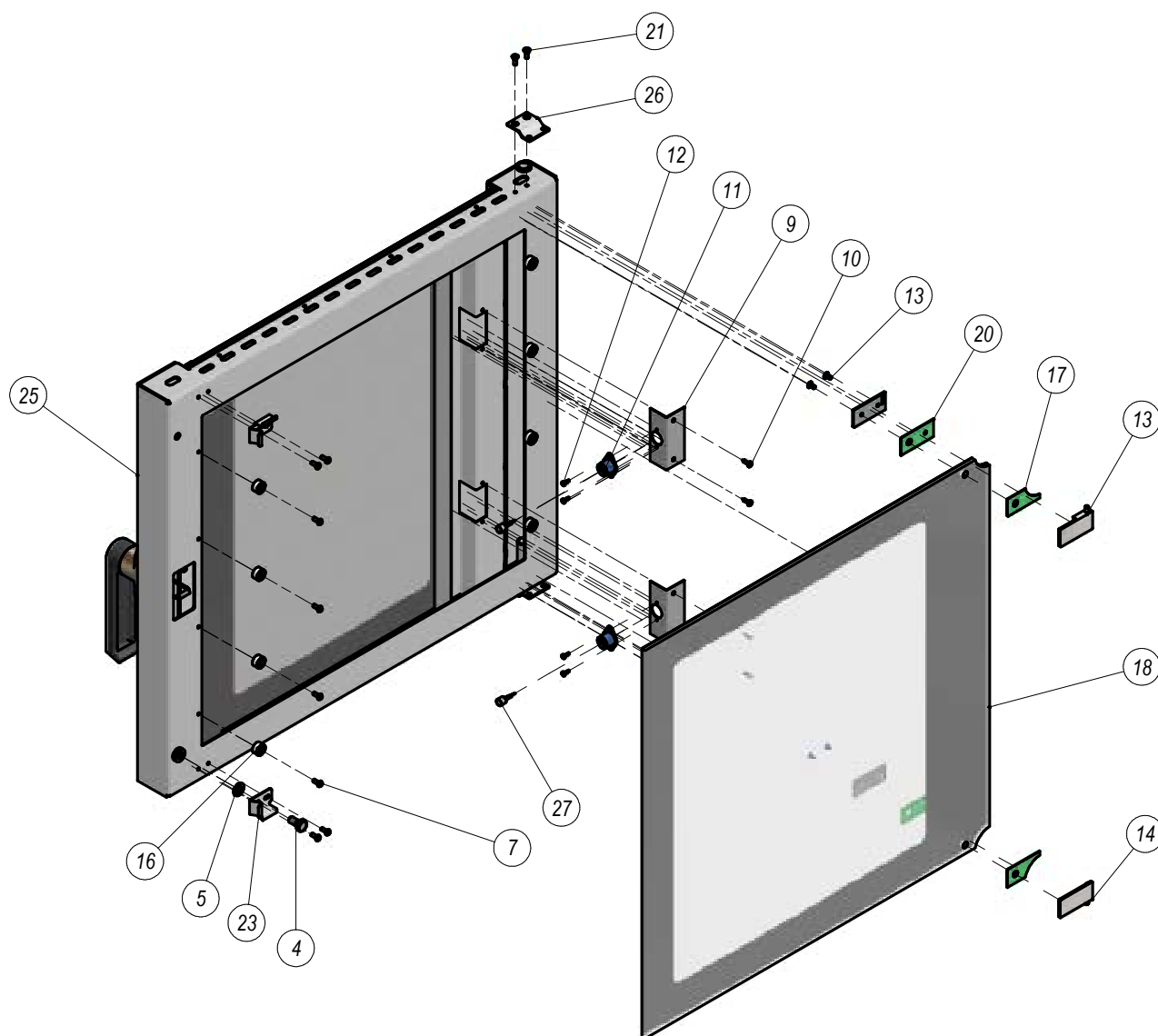






10.2 Detailed view of the inner door

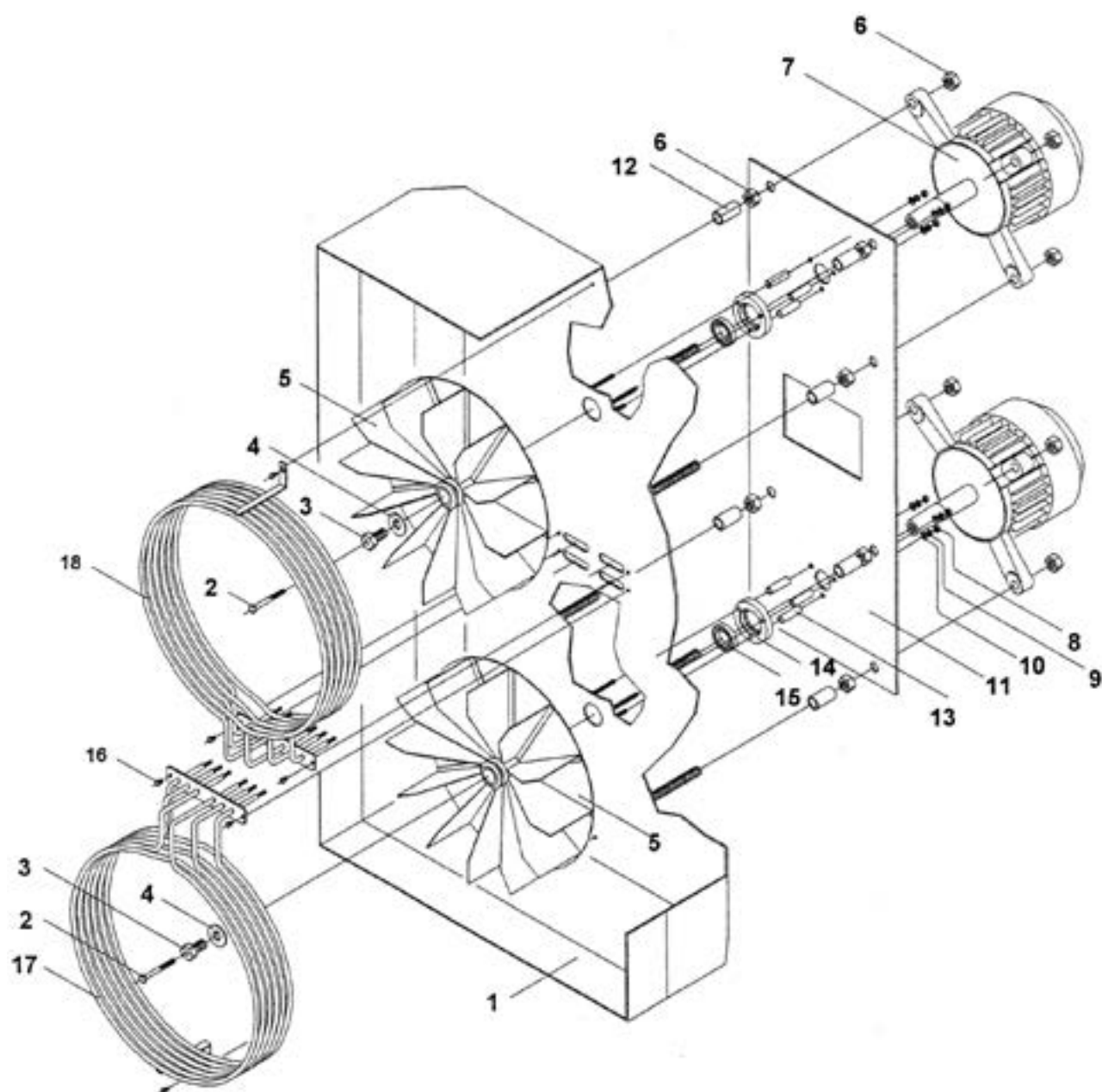
<i>Description</i>	<i>Code</i>	<i>Position</i>
Screw VTE M8 x 16 UNI5739	A1610164	4
Washer M8 UNI 6592B	A1720210	5
Screw TBEI UNI7380 - M4x10 A1620404		7
LIGHT HOLDER SUPPORT	8029994005	9
Screw AB 3.5 x 13 UNI 6954	A1620040	10
HALOGEN LIGHT HOLDER GX 5.3 WI	A0500009	11
Self-perf. SCREW UNI 8118-2.9 L=9.5	A1620071	12
HINGE SX CF0305PBSCS1	A4010219	13
HINGE DX CF0305PBSCS1	A4010218	14
INNER GLASS SPACER	0029954015	16
EXT. GASKET INNER GLASS	0029994016	17
DOOR INNER GLASS 5T	0029954006	18-5T
DOOR INNER GLASS 10T	00299X4006	18-10T
INT. GASKET INNER GLASS	0029994017	20
SCREW VTSEI UNI 5933 M4 x 12	A1610286	21
INNER GLASS UPPER STOP	0029994028	23
INNER GLASS LOWER STOP	0029994029	24
DOOR CASING UNIT TTV40-46 5T	0029954014	25-5T
DOOR CASING UNIT TTV40-46 10T	00299X4007	25-10T
INT. GLASS SUPPORT SHEET METAL	0029994030	26
HALOGEN LIGHT 24v. 20w	A0500024	27





10.3 View of the motor unit for 10 tin ovens

<i>Description</i>	<i>Code</i>	<i>Position</i>
Baking chamber		1
Screw M6x55		2
Fan tightening screw		3
Flat washer Ø13x55		4
Straight vane fan 350		5
Nuts M12		6
Motor type 1088 HP 0.5		7
Nut M5		8
Flat washer Ø5,3x10		9
Grower elastic washer Ø5,1		10
Motor plate		11
Plate spacer		12
Flange spacer		13
Insulation flange		14
Teflon ring Ø24		15
Screw M 4x12		16
Electrical resistor 220v 9000W		17
Electrical resistor 220v 9000W		18





10.4 View of hydraulic system

<i>Description</i>	<i>Code</i>	<i>Position</i>
Screw TBEI M6 X 16	A1620514	30
SILICON SUPPORT GASKET	A5021225/01	31
DOOR MICRO SUPPORT SHEET METAL	0029992013	32
MICROSWITCH LOW SHAFT M12 FASTON KSA4F	A5021175	33
Screw TC M4x15	A1600506	36
Solenoid valve SING. 180G. V18 quick connection 220V	A5021305	37-5T
Solenoid valve 2 WAY 180G. V18 quick connection 220V	A5021334	37-10T
Rilsan tube ø 4X6	A1340012	38-5T
Rilsan tube ø 6X8	A1340038	38-10T
Rilsan tube quick connection "L" shaped joint	A1910098	39
Electromagnetic type CM25 24VCC	A1330055	40
Rectifier for electromagnet type CM25 24VCC	A1330055-01	41

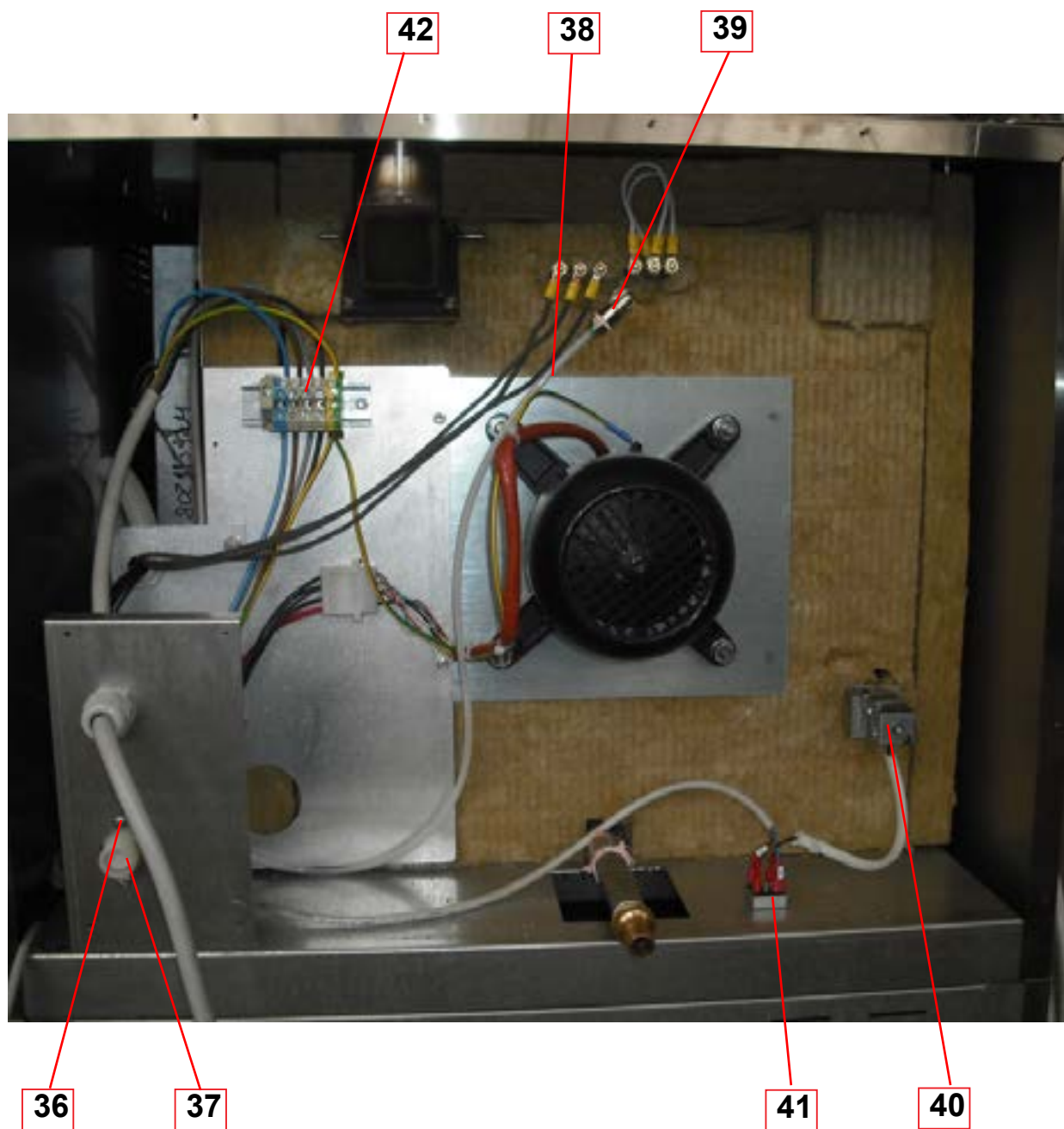


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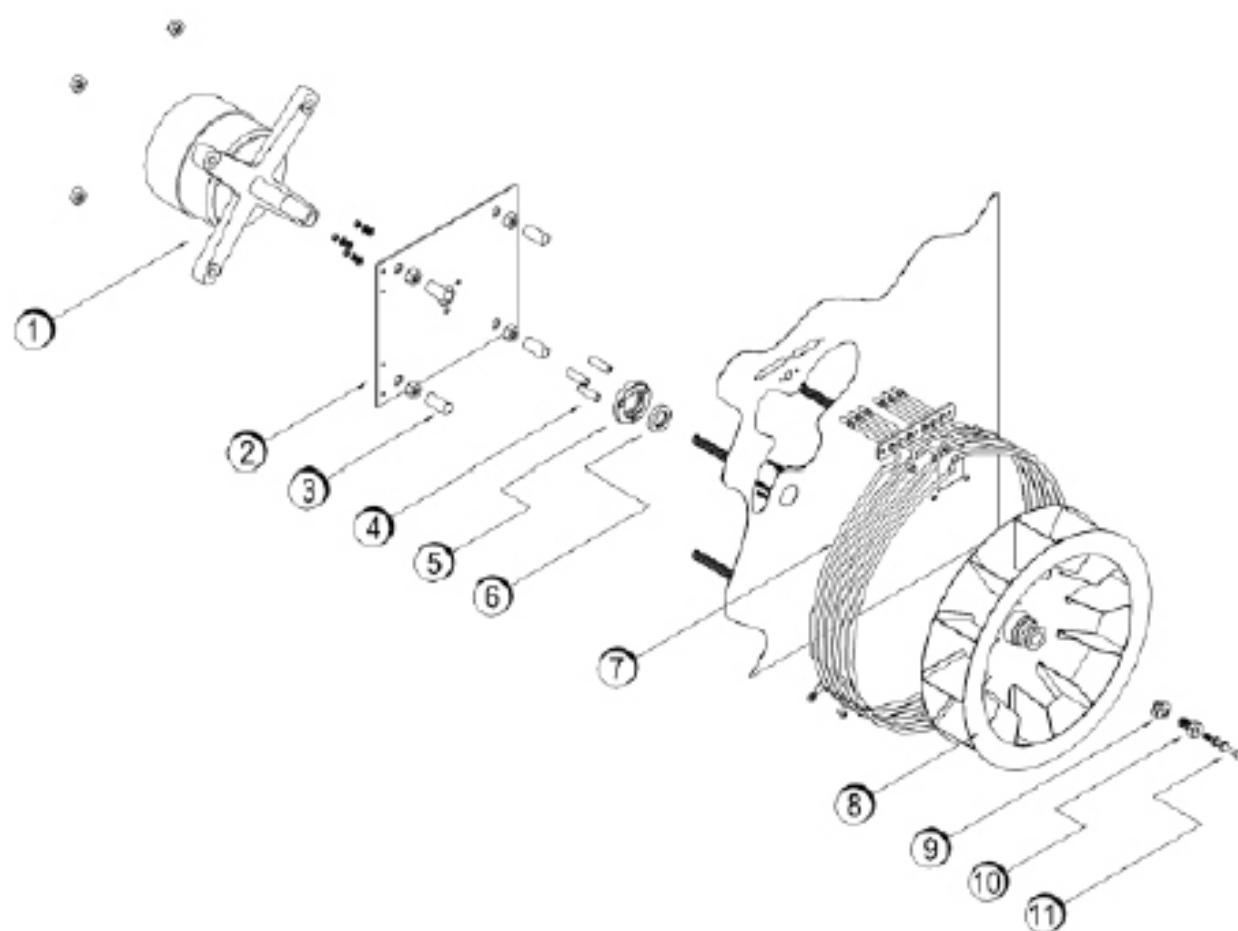
33





10.5 View of the motor unit for 5 tin ovens

<i>Description</i>	<i>Code</i>	<i>Position</i>
Baking chamber		1
Screw M6x55		2
Fan tightening screw		3
Flat washer Ø13x55		4
Straight vane fan 350		5
Nuts M12		6
Motor type 1088 HP 0.5		7
Nut M5		8
Flat washer Ø5,3x10		9
Grower elastic washer Ø5,1		10
Motor plate		11
Plate spacer		12
Flange spacer		13
Insulation flange		14
Teflon ring Ø24		15
Screw M 4x12		16
Electrical resistor 220v 9000W		17



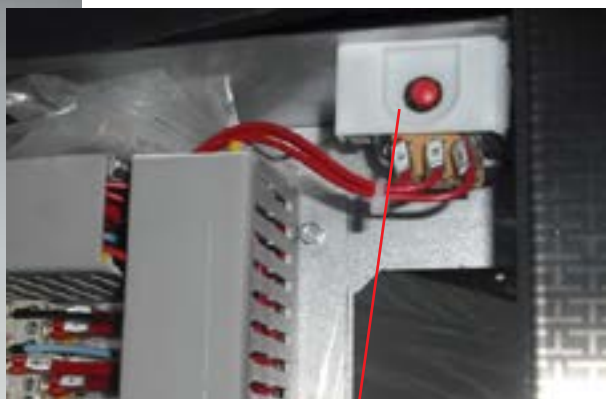


10.6 View of electric system



50

<i>Description</i>	<i>Code</i>	<i>Position</i>
CONTROL UNIT FOR OVENS RT/RVT/TVE SMART		50
POWER UNIT FOR OVENS AST/CT/RT/RVT/TVE/ST		51
OVEN FANS FIRST INVERTER		52
USB KEY 2-2AB L=1.8 m		53
ETH CABLE STRAIGHT L= 500 MM FTP CAT.5 - 2 RJ45 T568A		54
BLACK CONTINUOUS SOUNDING BUZZER		55
SAFETY THERMOSTAT JUMO EMF-54 TB/TB		56



56

53

52

51

55

54





11 SAFETY

These pages provide the information necessary to maintain system safety and prevent possible injury (the oven was designed and built by respecting the European safety standards or of other countries, if required). The oven should be used only by qualified personnel and instructed on its use. The oven was built with appropriate measures in order to ensure safety and health of the user and maintenance staff.

11.1 Safety signs

Oven shape and safety and protection devices are implemented to provide equipment with low risk for the operators.

However, in order to further increase the level of security of the oven itself, self-adhesive signboards were mounted in proximity to particularly dangerous or residual hazard areas, with warnings appropriate for each case. In the event of signboard damage or removal, the user must immediately restore all signs or replace them with identical ones.

The operators must not tamper with or remove the safety signs.

Figure 6 shows the hazard warning pictogram representing electrical equipment connected to a power supply, sign fixed on the electrical panel door.

The symbol indicates that within the oven's electrical panel there may be live equipment. Therefore the operators must cut off the power supply, using a switch upstream of the control panel or directly on the distribution panel connected to the oven, before opening the electric panel.

The figure presents the signboard with pictogram/s for thermal danger warnings due to:

1. oven temperatures in the door's glass area and in areas inside the baking chambers with open doors.
2. steam escaping from the opened door of the baking chambers and lack of steam extractor operation.

1. temperatures around the glass and the internal area of the chambers the temperatures may be high; the operator is obligated not to touch the above mentioned areas until they have reached ambient values. Operations may be carried out in these high temperature areas for short periods and using appropriate heat-resistant gloves.
2. during the opening of the doors high temperature steam escapes when the steam extractor is not functional; it is therefore necessary that the operator activates the steam extractor before pening the doors, the operation of which can be recognized by the characteristic noise. In case of failure, open the doors with the shovel used for unloading, while keeping a safe distance.





In burn on contact with solid parts risk operations, the operator must use appropriate I.P.D. (Individual Protection Devices) and devices consisting of: loading and unloading shovels, pans, loading trays etc... and heat-resistant gloves.

During inspections, the operator must be warned to keep an adequate safe distance avoiding to lean against the oven.

When vapour escape occurs, the operator must press the power button of the extractor hood before pulling the hot product from the baking chamber. If the steam suction system does not work (lack of power supply or damage) the operator must use the unloading shovel to open the doors, keeping himself at a safe distance from the oven.

11.2 Heat resistant gloves

These are special thermally insulated gloves that must be worn by the operator prior to hot tin extraction.

11.3 Apparel

It is recommended that operators do not wear, during work, articles of clothing that can get caught or hooked with ease: jackets with long sleeves, hanging scarves or ties, etc.

It is also recommended that people with long hair do not leave it loose but tie it up.

11.4 Residual hazards

The machine's residual hazards are inherent to its operation and are thermal in nature, in particular in loading and unloading operations and cooking control.

Residual hazards:

1. Danger of burns caused by the baking chambers and door metal supports when the operator introduces and extracts the product;
2. Risk of burning in the metallic support area and door glass when checking the product closely during cooking;
3. Danger of burns caused by steam escape from the baking chambers when taking the products out of the oven;
4. Risk of projection of machine parts due to possible breakage of door glass panel.

- **noise level:** the oven was designed and constructed in such a way that risks resulting from noise emission are reduced to the minimum.

From measurements carried out on a Modular series oven under the most unfavourable operating conditions, a continuous weighted equivalent acoustic pressure level was measured (A)

LOWER than 70 dB (A).

The measurement was performed at 1.6 m height from the ground and at 1 m from the front panel



12. Troubleshooting and immediate solutions

PROBLEM	CAUSES	SOLUTIONS
The oven is not heating up or it is slowly heated	Main switch	Make sure that the on/off switch and the residual current device is placed upstream of the oven, they are properly plugged in and the power supply cables are connected to the oven
	Main protection fuses interrupted	Check main and safety fuses continuity; if damaged, replace them
	One or more transformer protection fuses interrupted.	Check the cause of the intervention and replace the fuses (reset tripped circuit breaker or replace if faulty)
	One or more circuit breakers in incorrect position.	Check if the circuit breakers are in operational position: if not, set them in the "I" position.
	Power supply unit is not working	Check connection and power supply cables and replace the cable or replace the card if needed.
	Control unit fuse interrupted	Replace it
	Control unit set to programmed start-up	Make sure the chamber controller is adjusted to "ON" position and programmed start-up is disabled
	Alarm signals displayed in the control unit	see alarms instructions § 13.8
	Safety thermostat disconnected;	Make sure the safety thermostat has not been triggered (pos. 2 §12.1). Otherwise, reset it pressing the red button located below the box slot.
	Door limit switch not engaged.	Check the door's limit switch found in the lower right corner. When the door closes the limit switch is squeezed. If faulty, replace.
	Reinforced electrical resistor functioning	Make sure the electrical resistor operates correctly. It should be ignited when the temperature drops below the set point and shuts down when the set point is reached. Check the fuses or circuit breakers if burnt and replace them. Check the resistor and if broken, replace.
	Electrical connections interruption	Check the continuity of the electrical connections



PROBLEM	CAUSES	SOLUTIONS
Uneven cooking	Fan air recirculation operation	Check that the air recirculation fan (pos. 11 §12.1) is operating.
	Faulty temperature probe	check probe operation and if defective, replace.
The oven does not generate steam	Steamer operation has been disabled from the control panel	Check if steamer operation has been disabled from the control panel
	Lack of water	Check if the water valve is open and the water reaches the steamer's solenoid valves
	Dirty filter	Clean the filter on the water manifold
	Solenoid valve not working	Check solenoid valve correct operation, if not, replace it
	Spray tube clogged	Check the steamer's spray tube status. If clogged or dirty, clean it
	Clogged oven drainage	Clean the steamer's non-vaporised water drain
	Steam valve open, locked or faulty	Close the steam drain valve when dispersing steam, check its good functioning. In fact, if the valve was only partially open, the steam will spurt out from the supply duct without reaching the baking chambers.
	Faulty control unit	Check the correct operation of the control unit; if faulty replace
	Power unit faulty	Check the correct operation of the power unit placed inside the column; if faulty replace
	220Vac electric system protection fuse interrupted	Determine the cause and replace the 220Vac electric system protection fuse



PROBLEM	CAUSES	SOLUTIONS
The steam extractor does not work	Steam extractor circuit breaker tampered with or faulty	Check if the steam extractor circuit breaker has been tampered with or faulty; if faulty replace, if tampered with, check cause before resetting.
	Steam extractor connector failure	Check if the steam extractor connector receives input signals and if not than it's faulty; if faulty replace
	Steam extractor electric motor failure	Replace it
	Electrical connections interruption	Check the continuity of the electrical connections
Lighting on oven failure	Burned lamps	Replace them (see § 9.3)
	Transformer failure	Replace it
	Interrupted electrical connections	Check the electrical connections and light power supply cables
	Faulty control unit	Check the correct operation of the control unit; if faulty replace
	Power unit faulty	Check the correct operation of the power unit placed inside the column; if faulty replace
Presence on the oven's platform	Clogged non-vaporised water pipe drain	Clean or replace the non-vaporised water drain pipes
	Drain in chamber faulty	Carefully clean the rear oven drain
	Hydraulic system leak	Check the hydraulic system's sealing: fittings, hose clamps, pipes, solenoid valves. Replace defective parts.
Vibration and noise of the steam extractor	Foreign objects in the rotor	Remove any foreign objects. Before carrying out extractor operations, disconnect the oven's power supply and operate with extreme caution.
	Worn engine bearings	Replace the engine
Vibration and noise from air recirculation fan	Worn engine bearings	Replace the engine



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12.1 Data transfer USB slot

Unscrew the plastic cap and insert the USB key into the slot taking care to insert it from the correct side, and then follow the control panel display instructions.





13. Control panel





13.1 "SMART" control panel description

The control panel is fully electronically managed and contains all major management and control functions of the oven. The machine is equipped with an anti black-out device able to restore set parameters in case of a power supply failure (if before the black-out, the controller's cooking timer was enabled, when power supply is restored, the controller emits a sound similar to the one determining the end of the cooking time) . For more in-depth knowledge enabling correct use, details regarding system characteristics containing the so-called "invisible settings" access procedures that allow default value modifications, values calibrated as factory settings, read description below. Every key stroke is signalled with a short beep. By continuously pressing some settings keys determines a fast automatic adjustment and beeps are disabled.

When the oven is powered off, you can: turn on and off the baking chamber light, enable programmed ignition and access the invisible settings as described below.

When the oven is turned on, the following operations can be executed: all cooking parameters adjustment, cooking timer used, oven chamber light enabling and disabling and enable solenoid valve steam release.

Description

Push push-button for controller or baking chamber light power on or off. By gently pressing the button, the baking chamber light is turned on. In order to turn off/on the light press the button for 2 seconds. The (red) LED indicates controller status. LED turned on in the case of turned off controller and light.



Setting values increase button (lateral arrow UP)



Setting values decrease button (lateral Arrow DOWN)



By pushing the operation or settings confirmation push-push button, depending on the chosen displayed option, the result will be the alternation of display or size variables. Also allows access, when the controller is turned on, to cooking recipe menu.



Segment display: when the baking chamber is powered on it indicates chamber temperature and when the baking chamber is turned off it indicates programmed ignition set-up by displaying "Pro"





Description

Turn on/off push-push (CLOCK) button for cooking timer, cooking's end notice beep and possible alarms. When the controller is on and the "enter" key is pressed, the current day and date may be adjusted. When the controller is in stand-by mode and the "enter" button is pressed, the current day and time are displayed.



In this stage, by pressing the UP or DOWN button, the scheduled automatic power-on times will be displayed. Push push button for the preheating phase initiation with burner and air circulation fan start-up is also used for carriage stop at the end of the cooking operation. The red LED indicates controller status in START



Baking chamber vapour extraction valve opening/closing push push button, if the oven is equipped with motorized valves. The LED is red in the case of open valve and green in case of closed valve.



Steam dispensing button. In case of automatic delivery (see), the pressure opens the solenoid valve for the time set (see). In case of manual delivery (see), the valve will remain open as long as the button is pressed. The red LED indicates that the steamer has not reached the minimum set-point temperature (see). The green LED indicates that the steamer has reached the minimum set-point temperature. In case of a steam generator existence, the LED is green if the generator is running.



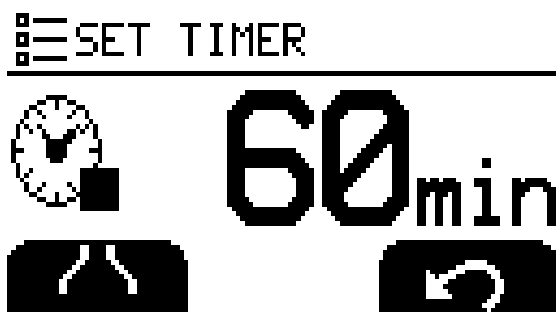
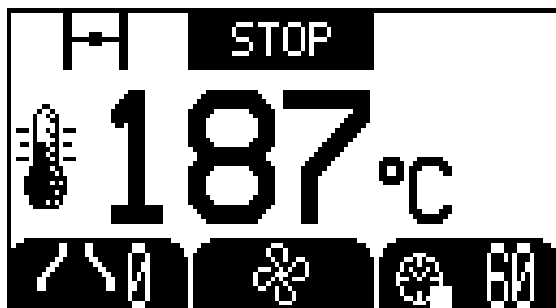


13.2 Manual operation

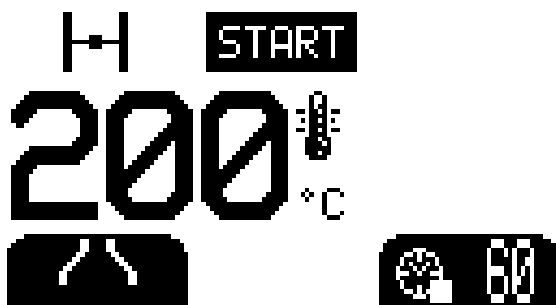
Description

Display STOP mode cooking time. Set temperature is displayed in the centre, the upper area indicates the vapour exhaust valve closed position (automatic optional) and next to the status TIMER COOKING TIME "STOP". The bottom displays 3 parameters status, from left:

- Extractor hood
- Baking chamber air recirculation speed
- Baking time set in minutes



Pressing the first arrow to the right of the cooking timer is going to change the cooking time. The corresponding keys are "UP" or "DOWN". The side figure presents the display during this operation. After the values have been changed, press the key below the curved arrow on the right to confirm, or after 10 seconds the settings are automatically stored. Press the START/STOP button to restart the cooking timer.



START controller status display (after pressing the START-STOP button). The central area displays the set temperature and the right side displays a flashing counting minute count. The upper area displays the vapour exhaust valve position (closed) on the left side, the centre displays the "START" controller status, the right side displays the timer symbol with the word "min" next to it. In the lower part shows 3 parameters:



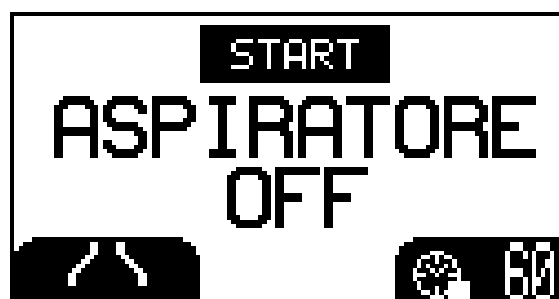
Description



The 3 side figures display the screens that appear when pressing the right key corresponding to the extractor hood symbol.

These figures represent extractor status:

- Extractor fan in on (ON)
- Extractor OFF



The side figure shows the display screen after pressing the vapour exhaust valve OPENING/CLOSING button





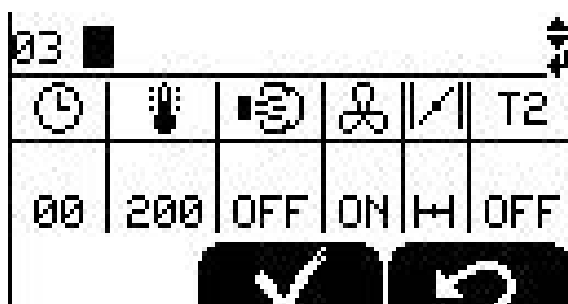
13.3 Automatic operation (with recipes)

Description



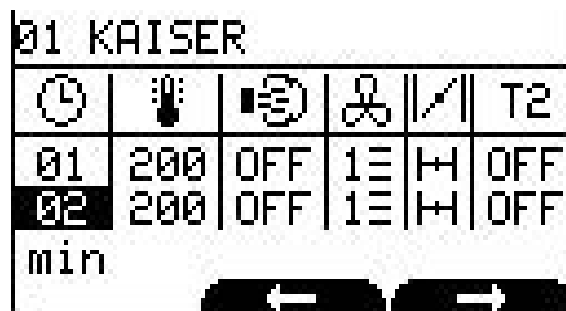
When the cooking timer is on STOP, pressing the ENTER key you enter the recipes list. Here you can select an already edited recipe or a new number for a new recipe by using the UP and DOWN arrows. By selecting the concerned line, the selected recipe may be launched by pressing the V key, in this case, the controller will load the recipe data and will initiate preheating the oven. The cooking stage will begin when the cooking timer's START/STOP button will be pressed.

By selecting a nameless line instead (new?), when the ENTER key is pressed, recipe programming will be accessed. The first selected parameter will be the letters that make up the name. To move from a letter to another press ENTER, to select a letter press the UP or DOWN arrows, thus a desired name is created for the recipe (max 16 characters including spaces). After the recipe name has been written, press the V key to confirm. By pressing the ENTER key various parameters may be set up.



The first values we are going to set correspond to the recipe launch parameters, which corresponds to the time "00". Starting from the row's left we see :

- Time in minutes
- Temperature
- Steam blast OFF or MAN or time in sec.
- Low (1) or high (2) speed air recirculation
- Valve status (closed or open)
- T2 = with value "ON" recirculation fans completely stopped for time T2, with value "OFF" recirculation fans moving for time T1 then stopped for time T2





To pass from a parameter to another press the two inferior buttons corresponding to the left and right arrows. Press ENTER to store. To add a row, press the centre key under the symbol, to change the values press the arrows next to the UP and DOWN keys. The parameters provided for selected minute remain valid until the next programmed minute. If you set a new program row with equal parameters to the previous row, it is not stored.

01 KAISER					
⌚	🔥	⏸	🌀	⚡	T2
01	200	OFF	1	H	OFF
02	200	OFF	1	H	OFF
°C					
←			→		

01 KAISER					
⌚	🔥	⏸	🌀	⚡	T2
01	200	OFF	1	H	OFF
02	200	OFF	1	H	OFF
S					
←			→		

01 KAISER					
⌚	🔥	⏸	🌀	⚡	T2
01	200	OFF	1	H	OFF
02	200	OFF	2	H	OFF
←					

01 KAISER					
⌚	🔥	⏸	🌀	⚡	T2
01	200	OFF	1	H	OFF
02	200	OFF	2	H	OFF
←					

01 KAISER					
⌚	🔥	⏸	🌀	⚡	T2
00	200	4.0	1	H	ON
←					

Description

To insert a new program row press the centre key corresponding to "add row" figure

The MINUTES column always displays the total minutes of cooking. By pressing the key below the X symbol, all the selected row will be cancelled. By pressing the key below the curved arrow, settings are stored and the recipe editing program returns to the recipe list.

When you have finished inserting desired program rows including the last minute of cooking, in order to store the entire recipe press the right key corresponding to the curved arrow.

01 KAISER					
⌚	🔥	⏸	🌀	⚡	T2
01	200	OFF	1	H	OFF
02	200	OFF	2	H	OFF
X ←→ ↻					



To invoke a previously set program, press ENTER, here you will enter in the recipe list by using UP or DOWN arrows to select the desired recipe and by pressing the centre button corresponding to the V symbol, the recipe is invoked. At this point to launch the recipe it is enough to press the START/STOP button.

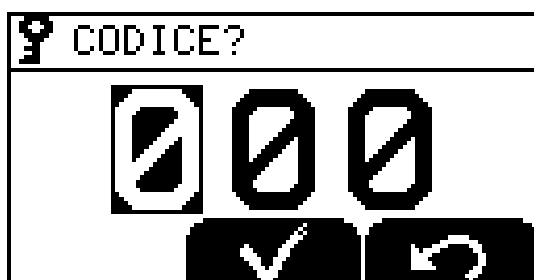
For oven manual operation, without involving recipes, select the manual program.



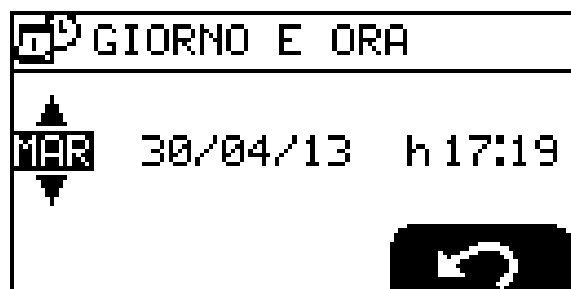
Description

If a recipe must be locked (key symbol next to the name) and if we want to change it, act as follows:

Press and hold the ENTER key for at least 5 seconds, enter in the recipe's block code, here you must enter the correct code (previously inserted in first level parameters) and then press the V button.



13.4 Current day and time set-up



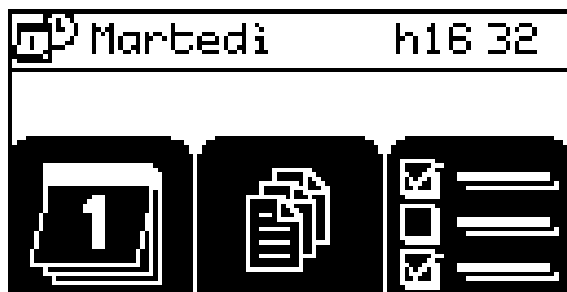
Description

Time and day can be set by keeping the keys CLOCK and ENTER pressed simultaneously for at least 5 seconds (with control unit on). Change the days of the week and the other parameters using the UP-DOWN arrows placed to the side and move from one side to the other and press ENTER. Exit by pressing the key next to the arrow. Hour and day setting can be carried out using a single controller. Various oven controllers will automatically synchronize when the programming has come to an end (synchronization between all connected controllers). This synchronization will be implemented immediately or on ignition



13.5 Programmed ignition

Description



In order to access the scheduled ignition section, the 2 arrow UP-DOWN keys you should press and hold for at least 5 seconds with a shut-down controller but with a connected power supply.

This screen will be accessed by pressing the key on the lower left side of the calendar figure and the baking chamber scheduled ignition management section is accessed.



The screen will display a box where we set the day of the week scheduled for baking chamber ignition, using the UP-DOWN arrows to change the day.

Pressing the ENTER key you switch to the central parameter that indicates if this is the first or the second power-on of the day.



Pressing the ENTER key you store the parameter and move to ignition schedule. The side arrows UP-DOWN are going to change the ignition value. The four horizontal dashes indicate that there will be no scheduled ignition for that day.

Press the button with the curved arrow to exit the weekly schedule section. Press the ON/OFF button for 5 seconds to completely exit. Press the key corresponding to the central symbol P-T to change program type P= permanent and T= temporary. Permanent programming consists of ignition hourly schedule programming that will last for an indefinite period of time until a new programming is implemented. Temporary programming consists of an hourly programming that will become priority with respect to the permanent programming but will have just a 7 day duration. After this time the temporary programming will automatically be cancelled, the permanent one being again valid. In case you want to temporary program a day during which you do not want to turn on the oven, store the OFF schedule. Press the button with the curved arrow to exit the weekly programming section. Press the ON/OFF button for 5 seconds to exit completely.



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Description



To enable controller start-up conducted by the weekly schedule, with a powered off controller in stand-by, press the ENTER key and it will display Pro (see left)

:

16:04:26

MAR 30/04/13

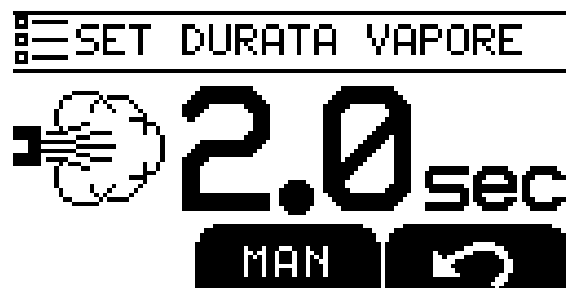
With a controller set to Pro or a powered-off controller, press the START/STOP button to display current time and day.



From here you can view the schedule of the upcoming ignitions programmed by pressing the up arrow on the side of the display, see picture to the side.

13.6 Steam flow adjustment

Description



To adjust steam blast duration, press the steam blast key and the ENTER key simultaneously, having the controller on but in STOP mode. In this menu the solenoid valve opening time expressed in seconds can be modified.

The parameter is only adjustable in the manual program and with steamer inserted.



13.7 Level 1 set-up

Description



In order to access first level set-up section, the 2 arrow UP-DOWN keys should be pressed and held for at least 5 seconds with a shut-down controller but with a connected power supply (power-on/off key corresponding led turned on).

This screen will be accessed by pressing the key on the lower right side of the indicated figure and the first level set-up section is accessed.



The first encountered parameter (00) is LANGUAGE. It can be modified by pressing the ENTER key and then selecting desired language by pressing the UP-DOWN arrows and exit and store by pressing the ENTER key



The next parameter is (01) SECURITY CODE. By pressing ENTER we can enter a 3 digit code (values from 000 to 999). To change it, use the UP or DOWN arrows to pass from one digit to the other. Press ENTER until the complete storage of all the digits. This code is used to lock the cooking recipe so it will not be modified by authorized users. To access locked recipes type in the stored code.



Selection (02) OVEN TYPE. By pressing the ENTER key we can select the oven type equipped with the controller and exit and store by pressing the ENTER key. Check that the oven type corresponds to the controller by viewing compatible models.



Description

Selection (03) OVEN NUMBER. By pressing the ENTER key we can select the oven number equipped with the controller. For more ovens sharing a serial connection (up to 32 ovens) do not assign the same number to two or more ovens as controllers with the same ID number do not exist, this would block data transmission between ovens.



Selection (04) VALVE. By pressing the ENTER key we can select the steam's exhaust valve's status: MANUAL, AUTOMATIC or NO (valve not existing). In case of manual valve, the cooking recipe can be programmed so that the controller can signal valve opening.



Selection (05) STEAM SOURCE. By pressing the ENTER key the steam source can be selected: STEAMER - NONE, using the UP-DOWN arrows select the oven's steam source exit by pressing the ENTER key.



Selection 07 STEAM TYPE. In this parameter, it is possible to select the SECONDS water dispensing mode. With this setting the water is delivered on time. STEP SECONDS with this setting the water is delivered with a small step in departure and then a long final blast. LITRES (flow meter optional) with this setting the water is always delivered in set quantity regardless of pressure or flow. STEP LITRES (low meter optional).



Selection (09) LIGHT SWITCH OFF with this parameter we can turn off the light in the baking chamber automatically after a certain number of seconds, values are configurable from 10 to 600 seconds or fixed (always on)



Description

≡≡≡ SETUP LIVELLO 1

10) PREALL. FINE COTT.



Parameter 10 - PRE COOKING ALARM, by pressing the ENTER key at least one alarm may be selected to signal cooking operation end and operation time. Choose between 1 and 600 sec. (alarm enabled) or NO (alarm disabled), default value 60 sec.

≡≡≡ SETUP LIVELLO 1

12) ALLARME TEMP.



Parameter 12 - TEMP. ALARM, by pressing the ENTER key you could select an alarm using the UP-DOWN arrows. (this setting allows you to receive an audible alert when the baking chamber temperature reaches a set point. This feature is useful during a recipe preheating)

≡≡≡ SETUP LIVELLO 1

13) SPEGNIMENTO LCD



Parameter selection 13 - LCD TURN OFF, by pressing the ENTER key we are going to select whether we want the LCD display to always remain turned on (select the Fixed option) or whether we want it to go off after a certain time (select the turn-on time expressed in seconds from 10 to 600). Press any key to turn the display back on.

≡≡≡ SETUP LIVELLO 1

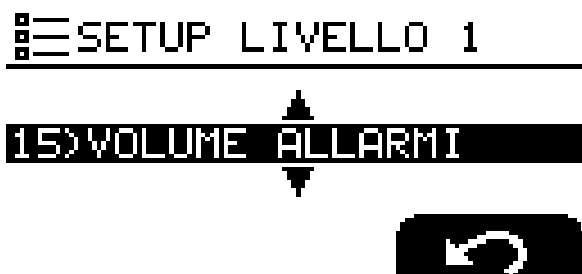
14) LUCE FINE COTTURA



Parameter selection 14 - END OF COOKING OPERATIONS LIGHT SIGNAL, by pressing the ENTER key to select if baking chamber light will flash to indicate the end of the cooking time. The options are YES (flash enabled) or NO (flash disabled)



Description



Parameter Selection 15 - ALARM VOLUME, by pressing the ENTER key we are going to select if we want the alarm volume LOW or HIGH.



Parameter Selection 16 - ALARM DURATION, by pressing the ENTER key select alarm duration between 5 and 120 seconds.



Parameter Selection 17 - LCD REVERSAL, by pressing the ENTER key select letter and background colour (white letters on a blue background or blue letters on a white screen). The options are YES or NO.



Parameter Selection 18 - LCD CONTRAST, by pressing the ENTER key select the LCD contrast variable from 5 to 40, default being 25.

Adjust this value to also remove any display colour spots



Description



Parameter Selection 19 - DISPLAY MODE, by pressing the ENTER key select the display type that we want to have during cooking, the options are:

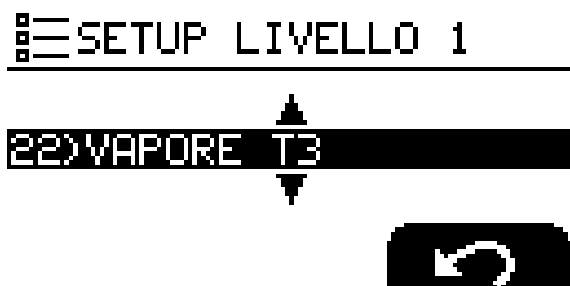
TEMP. + TIME, by selecting this option the temperature and cooking time in minutes will be simultaneously displayed. TEMP. TEMP. / TIME, by selecting this option the set temperature and cooking time in minutes will alternatively be displayed, press the ENTER key to change display.



Parameter Selection 21 - STEAM T2, by pressing the ENTER key this parameter is going to be adjusted. This parameter corresponds to the fan stop time period subsequent to steam emission.

Settable values from 0, ..., 255 sec

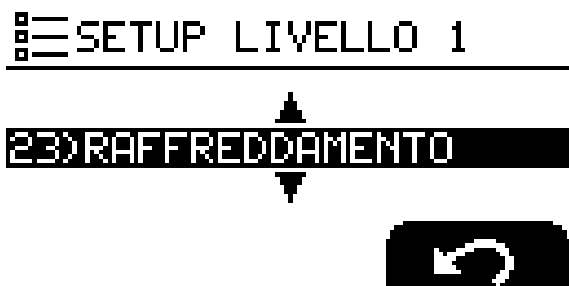
Default value 40 sec.



Parameter Selection 22 - STEAM T3, by pressing the ENTER key this parameter is going to be adjusted. This parameter corresponds to heat source operation with non-operational fan. Avoid Methane Gas burners pre-wash after operations involving steam utilisation.

Settable values from 0, ..., 30 sec

Default value 0 sec.



Description

Parameter Selection 23 - COOLING, by pressing the ENTER key this parameter is going to be adjusted. This parameter corresponds to a heat exchanger fan switch-off delay (in minutes) after the oven's power shut down (standby). Used for combustion cylinder cooling.

Settable values from 0, ..., 30 sec

Default value 10 sec.



Parameter Selection 24 - FAN, by pressing the ENTER key this parameter is going to be adjusted. This parameter corresponds to fan air recirculation speed: low speed (1) or high speed (2) or MULTI FREQUENCY (valid only if the oven has an OPTIONAL inverter).



Select parameter 34 - CORE PROBE, pressing ENTER to enable or not the possibility of inserting the probe to measure the temperature inside the product :

Settable values: YES or NO



Parameter Selection 37 - EXTRACTOR HOOD, by pressing the ENTER key this parameter is going to be adjusted. This parameter corresponds to the oven extractor hood type and operation mode, this value can be:

- 1 VEL. ON ON SW. ON (extractor hood vel.1 enabled at start)

- 1 VEL. OFF ON SW. ON (extractor hood vel.1 off at start)



Description

☰ SETUP LIVELLO 1

42) TRASMETTI RICETTE



Parameter Selection 42-RECIPETRANSFER, by pressing the ENTER key this controller will begin transmitting the recipes to all the controllers that previously have selected and confirmed the 43 RECIPES RECEIVING parameter .

ATTENTION: this will overwrite and thus erase all recipes present in the controllers receiving the file

☰ SETUP LIVELLO 1

43) RICEVI RICETTE



Parameter Selection 43 - RECIPES RECEIVING, by pressing the ENTER key receive the recipes from the baking chamber controller that we are going to select using the previous parameter.

☰ SETUP LIVELLO 1

44) ESPORTA RICETTE



Parameter Selection 44 - RECIPE EXPORT, by pressing the ENTER key export the controller's recipes to a USB stick inserted into the USB port. A VID12.TAG file will be created that can be sent by e-mail or transmitted to the controller of another oven. Press the ENTER key only after you have inserted the USB stick.



Description

≡≡≡ SETUP LIVELLO 1

45) IMPORTA RICETTE



Parameter Selection 45 - IMPORT RECIPES, by pressing ENTER key we are going to import the recipe from a USB stick that we have inserted into the USB port. Remember that only .tag files will be imported. Press the ENTER key only after you have inserted the USB key.

≡≡≡ SETUP LIVELLO 1

46) AGG. SCHEDA VIDEO



Parameter Selection 46 - AGG. VIDEO CARD, by pressing the ENTER key, import control unit software updates from a USB stick inserted into the USB port. This software is called "VID12 ...bin". By pressing the ENTER key, the current version of the SW will be displayed, the one present on the stick, if the data match, press the OK button

≡≡≡ SETUP LIVELLO 1

47) AGG. SCHEDA QUADRO



Parameter Selection 47 - AGG. PANEL BOARD, by pressing the ENTER key go to import power unit software updates from a USB stick inserted into the USB port. This software is called "ELEQU... .bin". By pressing the ENTER key, the current version of the SW will be displayed, the one present on the stick, if the data match, press the OK button

≡≡≡ SETUP LIVELLO 1

48) RESET



Parameter Selection 48 - RESET, by pressing ENTER key select where a basic set-up recovery is needed, here we can perform a reset to:

BAKING CHAMBER - we will reset in this case, all the control unit data including the hidden settings - the factory settings. We will reset in this case all the hourly switching on of all the chambers connected between them.

RECIPES. We will reset and we will cancel in this case all the programs of the prescriptions of cooking.



13.8 "SMART" unit alarm list

ALARM	CAUSES	SOLUTIONS
"ROOM P.INT."	Room temperature detection probe interrupted	Check tightening cables. Replace the probe
"S.INT/COR G.F"	Probe detection junction temperature interrupted	Replace the card power panel
"OPEN DOOR"	Door micro switch not working	Replace the door's micro switch or check connections
"ROOM MAXT"	Room temperature too high	Cool the chamber down, if the fault persists, replace the power panel board.
"MOTOR THERMAL PROTECTION SENSOR"	Motor thermal protection sensor messing.	Restore the thermal protection sensor. Check for possible short circuits.
"COMUNICAT. SERIAL INVERTER"	Interrupted or defective inverter connection	Check inverter serial connection.
"INVERTER ERROR"	Inverter not working or program.	Check the operation of the inverter and replace if necessary.
"PRESS START"	Command pending on oven	Press the START button to start the program or cooking.
"METERS ERROR"	Faulty meter	Check the connection. Check the time/litre setting. Check the water supply. Check steamer sprayer clogging. Replace the meter.
"KO COMM. Q/V"	The video card does not communicate with the board panel	Replace or connect the RJ45 cable to video card and board panel. Replace the card.
"LOW BATTERY"	Low backup battery.	Replace the Video board's CR2032 3V battery
"EPP VIDEO FAULTY "	The set point can not be stored on eeprom	Replace the video card
"ADC PANEL FAULT"	The panel board's a/d converter does not work	Replace the board panel



ALARM	CAUSES	SOLUTIONS
"COMUNICAT. SERIAL INVERTER"	Interrupted or defective inverter connection	Check inverter serial connection.
"INVERTER ERROR"	Inverter not working or program.	Check the operation of the inverter and replace if necessary.
"PRESS START"	Command pending on oven	Press the START button to start the program or cooking.
"METER ERROR"	Faulty meter	Check the connection. Check the time/litre setting. Check the water supply. Check steamer sprayer clogging. Replace the meter.
"KO COMM. Q/V"	The video card does not communicate with the board panel	Replace or connect the RJ45 cable to video card and board panel. Replace the card.
"LOW BATTERY"	Low backup battery.	Replace the Video board's CR2032 3V battery
"EPP VIDEO FAULTY "	The set point can not be stored on eeprom	Replace the video card
"ADC PANEL FAULT"	The panel board's a/d converter does not work	Replace the board panel



ALARM	CAUSES	SOLUTIONS
"OVER VOLTAGE"	Fast deceleration ramp Very inertial load High power voltage Sudden power voltage jolts	Increase deceleration ramp Check power via the diagnostics. In series, insert a transformer on the inverter.
"UNDER VOLTAGE"	Fast acceleration ramp Very inertial load low power voltage	Increase acceleration ramp. Check power via the diagnostics.
"OVER TEMPERATURE"	High ambient temperature. Check motor fan. Check the distributor is clean	Lower the ambient temperature with fans or refrigerators. Replace motor fan. Clean the distributor with compressor.
"OVER-LOAD"	Load too high Power supply voltage too high compared to the nominal voltage of the motor.	Correct overload % and overload time. In series, insert a transformer on the inverter.
"OVER CURRENT"	Motor output in short circuit. Dispersion towards motor output earthing. Disturbance from other electrical/electronic equipment placed near or on the same power line. Fast acceleration ramp	Check cabling or motor Increase acceleration ramp



ALARM	CAUSES	SOLUTIONS
"NO COMMUNICATION"	Low Modbus timeout value	Correct Modbus timeout value
	TTL communication not working	Check cabling. Check Master
"NO CURRENT"	No current sensors present	Switch off, wait and switch back on the inverter and see if it's a problem.



14 How to request spare parts

If you have to order spare parts, you need to proceed as follows:

- 1) Photocopy the form on the next page.
- 2) Fill in the fields following these instructions:

SERVICE AND SPARE PARTS OFFICE FAX 0039-0521.628763			
B	SPARE PARTS OFFER REQUEST FORM		A
C		D	
E	F	H	
	G	I	
Code number	Description		Quantity
L	M		N

- A Offer request page number (example: if the list of spare parts occupies more than 2 forms, in the 1st write "1/2" and in the 2nd write "2/2").
- B Pre-printed serial number of the system aimed at avoiding errors. **(Be careful to avoid using this form for another one of our systems, we will have the wrong reference.)**
- C Name and address of the plant the goods should be sent to.
- D Name and address of the plant the invoice should be sent to.
- E Name and address of the person the quote should be sent to (write in capital letters).
- F Telephone number of the person asking for the quote.
- G Fax number to send the quote to.
- H Type of delivery preferred by the addressee.
- I Quote request date.
- L Reference number of mapping table in the manual.
- M Name of spare part.
- N Quantity of spares required.
- 3) Send, to the fax number indicated, a copy of the fully completed form.
In the shortest time possible, you will receive a reply including the full quote, delivery and sales conditions.



If the request is sent in any other format or using an incomplete form,
TAGLIAVINI S.p.a. cannot be held in any way liable for any type of misunderstanding.



Machine serial no.

N°. page

Invoice address

Shipping by:

Date

Quantity

[illegible]

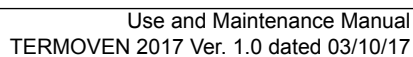


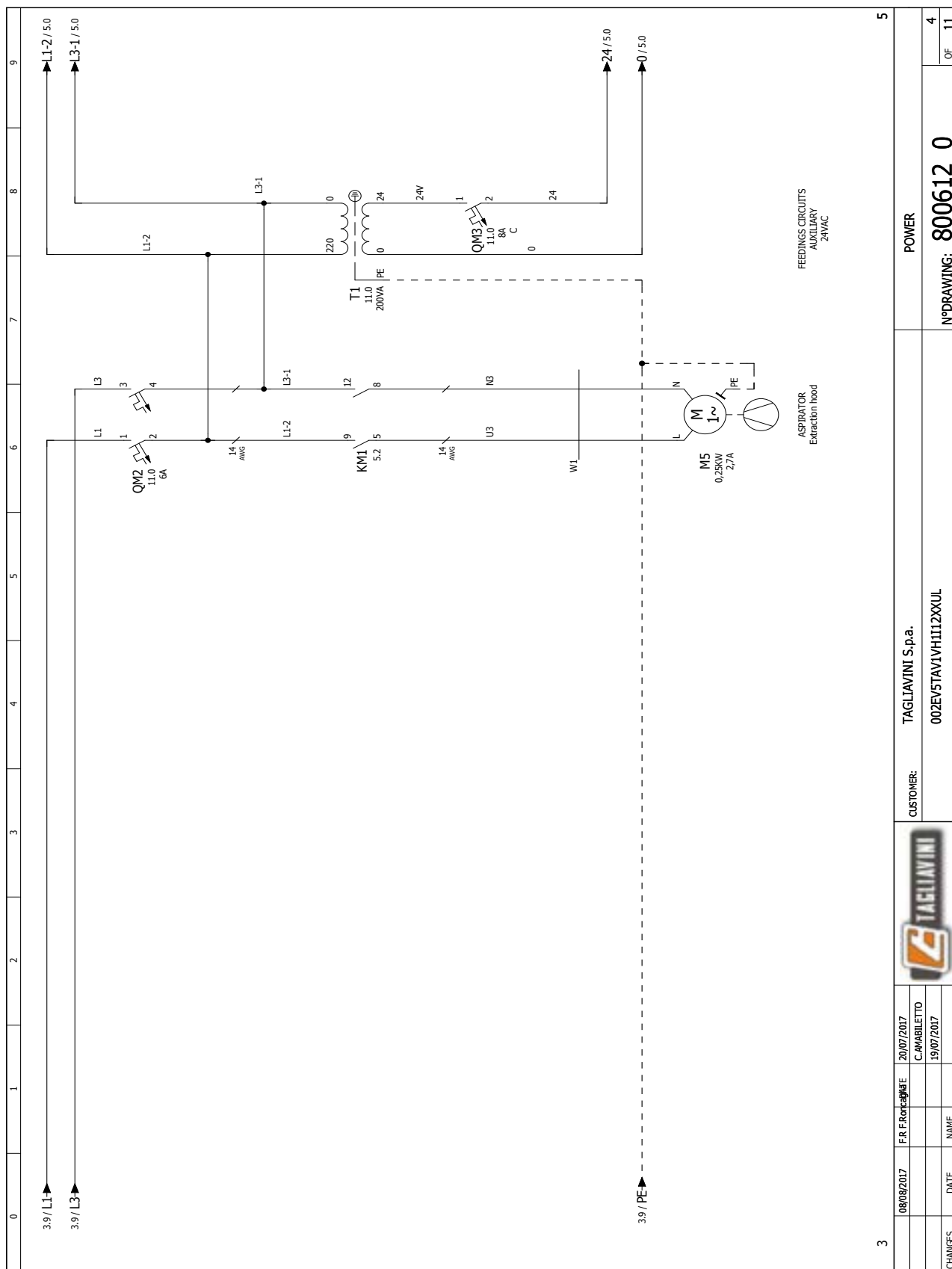
15 Wiring diagrams

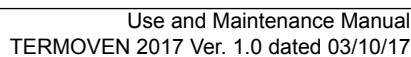
0	1	2	3	4	5	6	7	8	9
 TAGLIAVINI S.p.a. Via Ponte Taro, n°27/B 43015 NOCETO (PR) Tel. +390521628844 Fax. +390521628763 http://www.tagliavini.com info@tagliavini.com TAGLIAVINI-COP GENERALE 17/04/2014									
CUSTOMER		TAGLIAVINI S.p.a.							
ELECTRIC SCHEME									
MACHINE:	002EV5TAV1VH11I2XXUL				N° DRAWING		800612_0		
END CUSTOMER					DRAFTSMAN:		AMABILETTO CIRO		
SERIAL NUMBER	R05890107X				DRAWN THE		08/08/2017		
INPUT LEAD									
VOLTAGE (V)	220V	Frequency (Hz)	60Hz	current (A)	32	POWER (kW)	10		
NOMENCLATURE CIRCUITS									
CIRCUIT TYPE	voltage	WIRE			Color				
		Type	Minimum section						
POWER MAINS	220 VAC	AWG	14		BLACK				
			-----		-----				
POWER	220 VAC	AWG	14		BLACK				
			-----		-----				
AUXILIARY	230 VAC	AWG			-----				
AUXILIARY VAC	24 VAC	AWG	16		RED				
AUXILIARY VDC	0 VAC	AWG	16		WHITE				

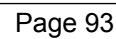
	24 VDC	AWG			-----				
	5 VDC	AWG			-----				
08/08/2017		F.R.F. Rongione	20/07/2017	C. AMABILETTO		19/07/2017			
CHANGES		DATE	NAME						
CUSTOMER:				TAGLIAVINI S.p.a.		COVER		N°DRAWING: 800612_0	
				002EV5TAV1VH11I2XXUL				1 OF 11	

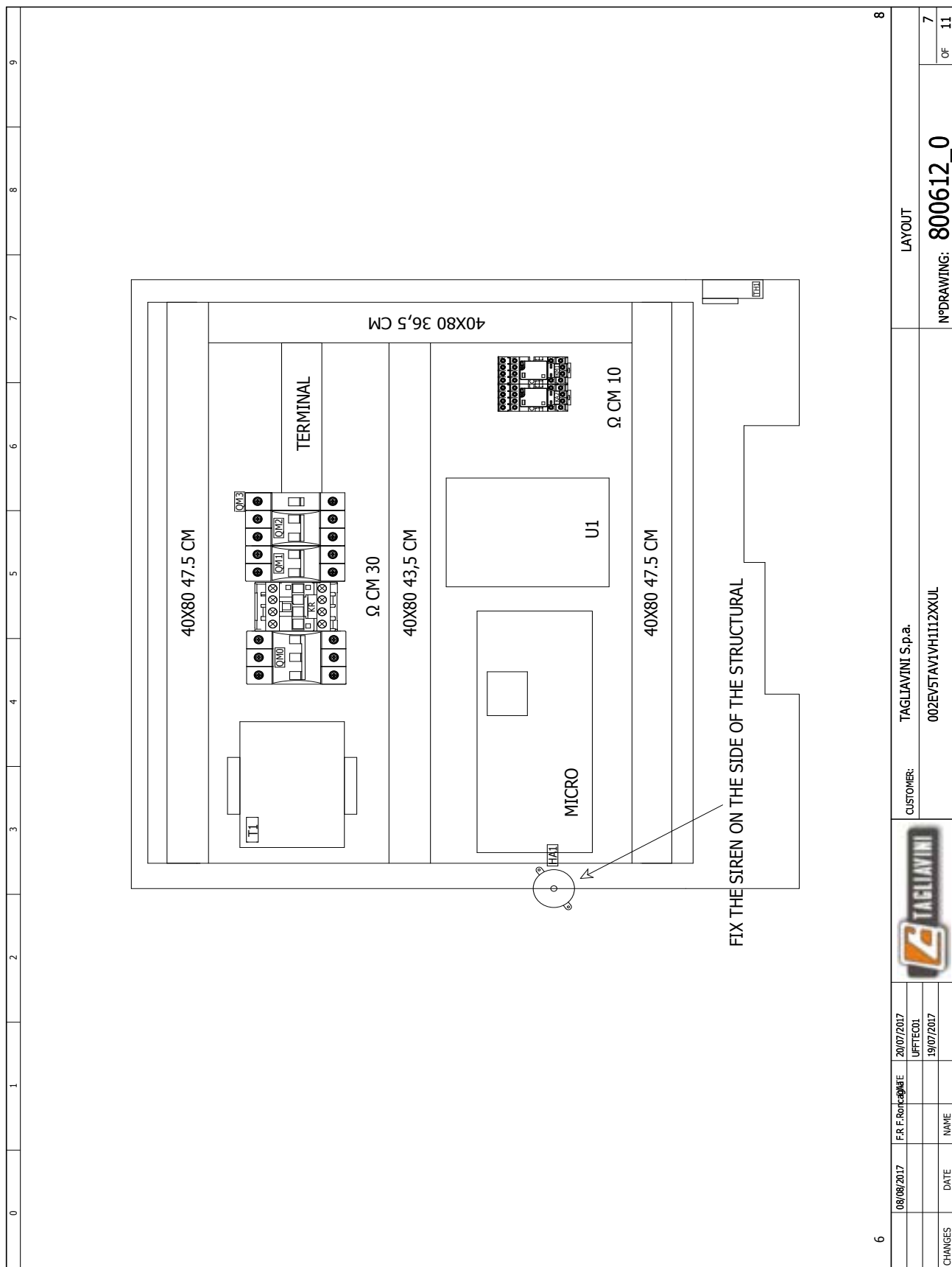
Page 89





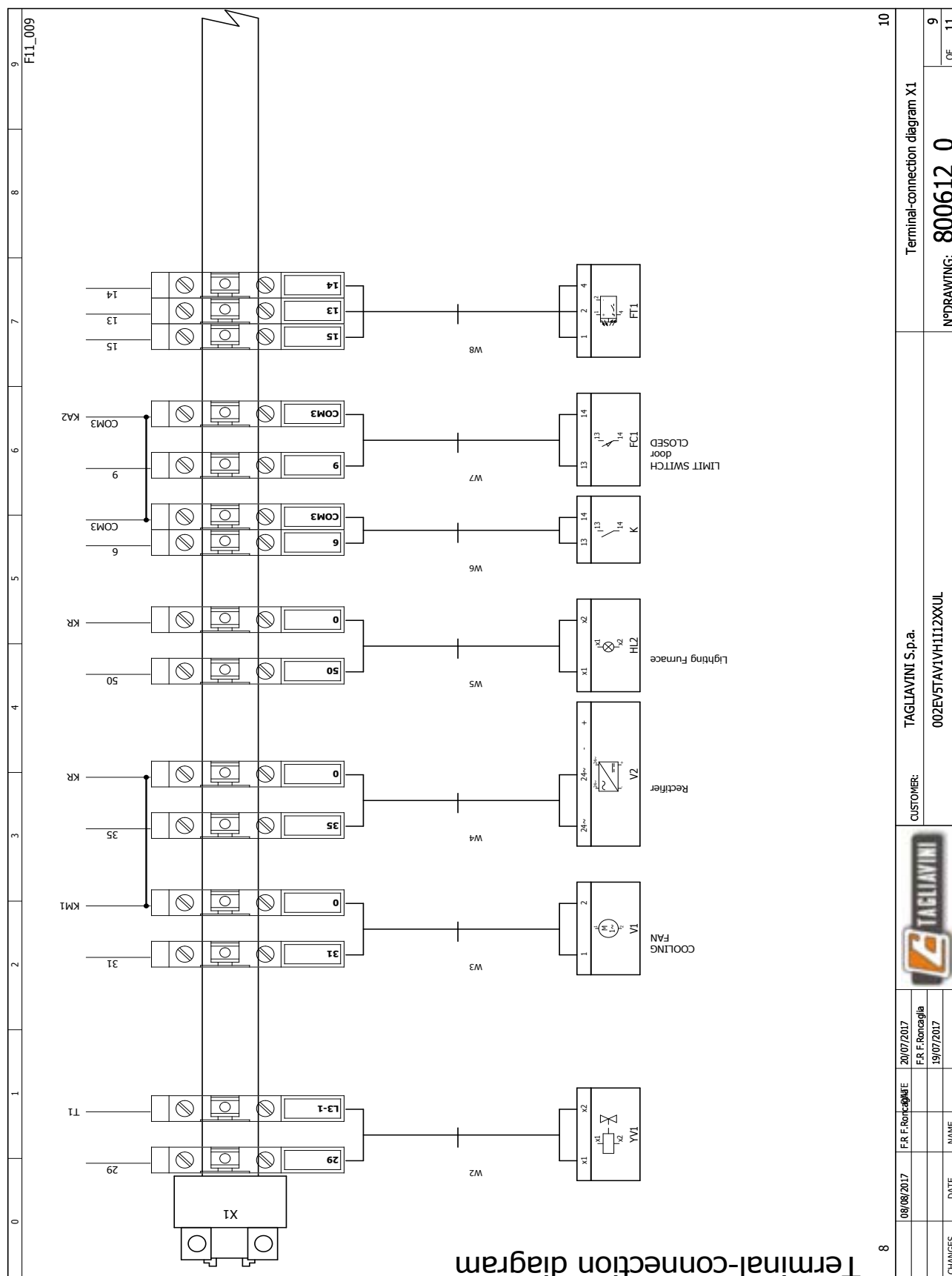




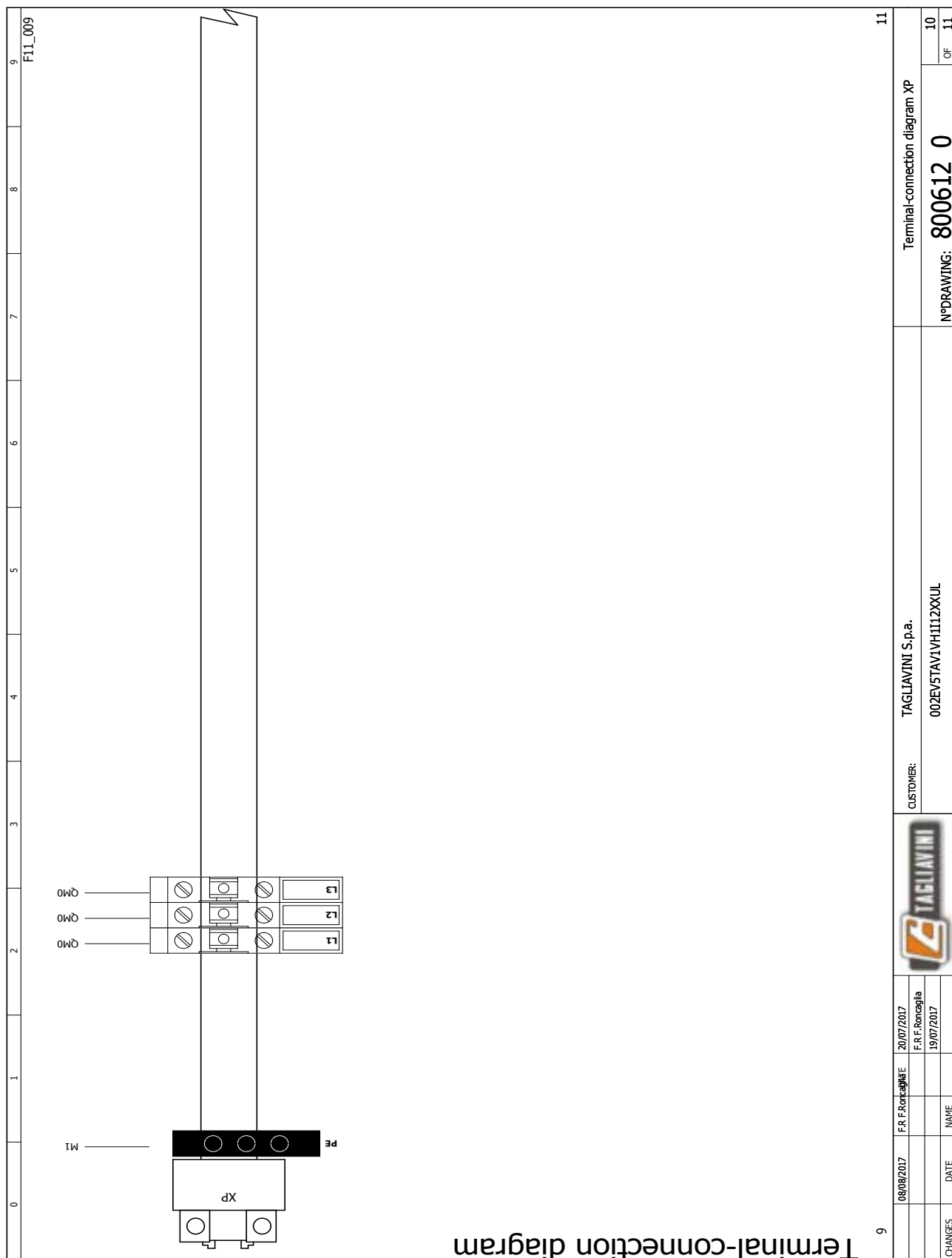




0	1	2	3	4	5	6	7	8	9
View SUPERIOR									
FC1+HL1 5 YV1+YV2 4 M3+V1 3 LINE 2 RESISTANCES 1									
7			TAGLIAVINI S.p.a.				LAYOUT		
08/08/2017			002EV5TAV1VH112XXUL				N°DRAWING: 800612_0		
CHANGES			DATE				OF		
			NAME				8		
							11		



8		10	
		Terminal-connection diagram X1	
CUSTOMER:		TAGLIAVINI S.p.a.	
		002EV5TAV1VH112XXUL	
		N°DRAWING: 800612_0	
		9	
		OF 11	





Use and Maintenance Manual
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