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OVEN 'MODULAR / 02' ELECTRIC ELECTRONIC ST-02

INSTALLATION
AND OPERATING
INSTRUCTIONS

REVISION: Horno Modular 02 (ing) 180711.doc

MANUFACTURER'S DATA

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TECHNICAL CHARACTERISTICS

Туре	Model	V	А	Hz	Phase	kW	kcal/h	Area dm²	Volume dm ³	Capacity
EM-20	ST-02	230/400	13,6 / 7,4	50/60	3N~	4,9	4.300	56	112	2 (60 x 40)
EM-20 PIZZA	ST-02	230/400	17,0 / 9,3	50/60	3N~	6,2	5.400	56	112	2 (60 x 40)
E-20	ST-02	230/400	21,6 / 11,7	50/60	3N~	7,8	6.800	83	166	3 (60 x 40)
E-20 PIZZA	ST-02	230/400	27,0 / 14,7	50/60	3N~	9,8	8.500	83	166	3 (60 x 40)
E-25	ST-02	230/400	27,0 / 14,7	50/60	3N~	9,8	8.500	83	207	3 (60 x 40)
EMD-20	ST-02	230/400	25,1 / 13,7	50/60	3N~	9,1	7.900	107	214	4 (60 x 40)
EMD-20 PIZZA	ST-02	230/400	31,7 / 17,3	50/60	3N~	11,5	9.900	107	214	4 (60 x 40)
ED-20	ST-02	230	34,7	50/60	3N~	13	11.300	156	312	6 (60 x 40)
ED-20	ST-02	400	19,3	50/60	3N~	13	11.300	156	312	6 (60 x 40)
ED-25	ST-02	230	43,5	50/60	3N~	16,3	14.100	156	390	6 (60 x 40)
ED-25	ST-02	400	24,1	50/60	3N~	16,3	14.100	156	390	6 (60 x 40)
NXE/NXEP-20	ST-02	230/400	25,9 / 14,1	50/60	3N~	9,4	8.100	117	234	3 (76 x 46)
NXE-20 PIZZA	ST-02	230/400	34,1 / 18,6	50/60	3N~	12,3	10.600	117	234	3 (76 x 46)
NXD/NXDP-20	ST-02	230	45,9	50/60	3N~	17,3	14.900	225	450	6 (76 x 46)
NXDP-20	ST-02	200	49,2	50/60	3N~	16,2	14.900	225	450	6 (76 x 46)
NXD/NXDP-20	ST-02	400	25,6	50/60	3N~	17,3	14.900	225	450	6 (76 x 46)
NXM-20	ST-02	230/400	18,3 / 9,9	50/60	3N~	6,6	5.700	79	158	2 (76 x 46)
NXM-20 PIZZA	ST-02	230/400	22,8 / 12,4	50/60	3N~	8,2	7.100	79	158	2 (76 x 46)
ELP-20	ST-02	230/400	24,0 / 13,4	50/60	3N~	9,1	7.900	106	212	4 (60 x 40)
LXP-20	ST-02	230/400	30,2 / 16,9	50/60	3N~	11,4	9.900	152	304	4 (76 x 46)
SG Small	ST-02	230/400	3,5 / 2,0	50/60	3	1,4	1.300	-	-	-
SG-Big	ST-02	230/400	6,3 / 3,6	50/60	3	2,5	2200	-	-	-

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0. WARNINGS

IMPORTANT

Read this instructions manual carefully before switching the oven on.

The appliance is designed exclusively for professional use and should be operated by qualified personnel only.

<u>VERY IMPORTANT:</u> When heating for the first time during the setup process, in ovens with case-hardened bases, the temperature **must be increased** according to the cycle indicated in Section 5.2 / Page 5-2 (Heating ovens with case-hardened bases for the first time). <u>Failure to do so may cause serious damage</u> to the oven.

FOR YOUR SAFETY

Do not use or store petrol, inflammable liquids or gases near this equipment. Nothing should be baked in this oven that contains alcohol or gives off inflammable gases during baking

STARTING UP INSTRUCTIONS

This unit must be grounded for your protection in order to avoid the risk of electrical discharges. It should be connected directly to the ground terminal of the control cabinet. The ground cable must not be cut or disconnected from the oven.

CAUTION

During the baking process in order to avoid the possibility of burns produced by the steam, the door shall be opened with care.

NOISE LEVEL

The acoustic power emitted by the oven is lower than 70 dB.

Keep this instruction manual in a safe and accessible place.

A three-phase main switch with its corresponding fuses should be placed between the oven and the main

1. PREASSEMBLY INSTRUCTIONS

1.1 STORAGE AND TRANSPORT

The oven is sent packed on a wooden platform covered with plastic film, that protects the machine against humidity and rain. The oven should be transported in a completely closed vehicle, and it should never be left outdoor.

1.2 CONDITIONS FOR USE

- The oven has been manufactured to be installed indoor. It is not made to work outdoor. Any
 possible contact with water has to be avoided.
- The oven should not be installed in places with excessive heat, steam and/or humidity production.
- The oven is prepared to work under the following external conditions: -10 + 40 °C, and 0 + 90 % of humidity.
- The room in which the oven has to be installed must have adequate ventilation. If there is a
 fumes extractor, then a window with at least the section of the fumes extractor should be kept
 open.
- The position of the oven regarding the side and back wall of the installation premises should have a minimum distance of 2" (50 mm) between the oven sides and the walls of the room.

1.3 GENERAL INFORMATION

This type of oven basically is comprised of independent decks of standardized production, who manufactured from metal and stainless steel.

Assembly of this unit is carried out by piling decks with the same surface, two different levels may be installed, thus enabling different combinations, according to client's requirements. These decks are manufactured in two different height sizes with inner chamber measures being 7.9 (200 mm) and 9.8 inches (250 mm).

The oven unit is always supported by the **BASE**, and the different **DECKS** are piled on this, finished with a **TOP** with a hood for fume removal. At the same time, the base may be supported by a **PROOFER** with **WHEELS**, for fermentations, or in the case or ovens of great height, on four wheels directly to the base. The heating elements may be interchangeable. The temperature of each deck is electronically controlled from a **CONTROL PANEL**, located on the right hand side of the front part of the deck. The LIGHTING PANEL is located next to this control panel, and the inside of the chamber is lit from the same, as well as the replacement of the lamp of the same.

The control for the handle which opens and closes fume extraction from the inside of the chamber, is located on the left hand on the front panel; the fumes go to a general collector located on the back of the deck.

1.4 DIMENSIONS OF DIFFERENT COMPONENTS.

LEGS + WHEELS	WIDTH mm/inches	DEPTH mm/inches	HEIGHT mm/inches	WEIGHT Kg/lbs.
100	114/4,5	172mm. 6,8 inches.	(100 + 200) / (3,9 + 7,9)	(6 +10) / (13 + 22)
200	114/4,5	172/6,8	(200 + 200) / (7,9 + 7,9)	(10 + 10) / (22 + 22)
435	114/4,5	172/6,8	(435 + 200) / (17,1 + 7,9)	(14 + 10) / (31 + 22)
530	114/4,5	172/6,8	(530 + 200) / (20,9 + 7,9)	(18 + 10) / (40 + 22)
630	114/4,5	172/6,8	(630 + 200) / (24,8 + 7,9)	(21 + 10) / (46 + 22)
730	114/4,5	172/6,8	(730 + 200) / (28,7 + 7,9)	(24 + 10) / (53 + 22)

E	WIDTH mm/inches	DEPTH mm/inches	HEIGHT mm/inches	WEIGHT Kg/lbs.
E-20 DECK	4 747/67 G	1 110/11 0	245/42 4	175/385
E-20 PIZZA DECK	1.717/67,6	1.140/44,9	315/12,4	193/425
E-20 DECK WITH STEAM	1.717/67,6	1.140/44,9(*)	315/12,4	225/496
E-25 DECK	1.717/67,6	1.140/44,9	365/14,4	190/419
E-25 DECK WITH STEAM	1.717/67,6	1.140/44,9(*)	365/14,4	240/529
PROOFER	1.717/67,6	914/36	706/27,8	115/253
BASE	1.717/67,6	914/36	150/5,9	65/143
ТОР	1.717/67,6	1.138/44,8	150/5,9	65/143

ED	WIDTH mm/inches	DEPTH mm/inches	HEIGHT mm/inches	WEIGHT Kg/lbs.
ED-20 DECK	1.717/67,6	1.740/68,5	315/12,4	260/573
ED-20 DECK WITH STEAM	1.717/67,6	1.740/68,5(*)	315/12,4	340/750
ED-25 DECK	1.717/67,6	1.740/68,5	365/14,4	275/606
ED-25 DECK WITH STEAM	1.717/67,6	1.740/68,5(*)	365/14,4	355/783
BASE	1.717/67,6	1.514/59,6	150/5,9	90/198
ТОР	1.717/67,6	1.738/68,4	150/5,9	90/198

ЕМ	WIDTH mm/inches	DEPTH mm/inches	HEIGHT mm/inches	WEIGHT Kg/lbs.
EM-20 DECK	4.047/54.0	4.440/44.0	045/40 4	140/309
EM-20 PIZZA	1.317/51,9	1.140/44,9	315/12,4	153/337
EM-20 DECK WITH STEAM	1.317/51,9	1.140/44,9(*)	315/12,4	190/419
PROOFER	1.317/51,9	914/36	706/27,8	90/198
BASE	1.317/51,9	914/36	150/5,9	50/110
TOP	1.317/51,9	1.138/44,8	150/5,9	50/110

EMD	WIDTH mm/inches	DEPTH mm/inches	HEIGHT mm/inches	WEIGHT Kg/lbs.
EMD-20 DECK	4 747/07 0	4.040/50.0	045/40 4	190/419
EMD-20 PIZZA DECK	1.717/67,6	1.340/52,8	315/12,4	214/471
EMD-20 DECK WITH STEAM	1.717/67,6	1.340/52,8(*)	315/12,4	270/595
PROOFER	1.717/67,6	1.114/43,9	706/27,8	100/220
BASE	1.717/67,6	1.114/43,9	150/5,9	65/143
ТОР	1.717/67,6	1.338/52,7	150/5,9	65/143

NXE / NXEP	WIDTH mm/inches	DEPTH mm/inches	HEIGHT mm/inches	WEIGHT Kg/lbs.
NXE-20 DECK	1.912/75,3	1.291/50,8	315/12,4	215/474
NXE-20 PIZZA DECK	1.912/75,3	1.291/50,6	315/12,4	240/529
NXE-20 DECK WITH STEAM	1.912/75,3	1.291/50,8(*)	315/12,4	265/584
NXE-20 BAKER DECK	1.912/75,3	1.340/52,8(*)	315/12,4	265/584
PROOFER	1.912/75,3	1.065/41,9	706/27,8	120/265
BASE	1.912/75,3	1.065/41,9	150/5,9	65/143
TOP	1.912/75,3	1.289/50,7	165/6,5	65/143

NXD / NXDP	WIDTH mm/inches	DEPTH mm/inches	HEIGHT M/inches	WEIGHT Kg/lbs.
NXD-20 DECK	1.912/75,3	2.051/80,7	315/12,4	310/683
NXD-20 DECK WITH STEAM	1.912/75,3	2.051/80,7(*)	315/12,4	390/860
NXD-20 BAKER DECK	1.912/75,3	2.100/82,7(*)	315/12,4	390/860
BASE	1.912/75,3	1.825/71,9	150/5,9	70/154
ТОР	1.912/75,3	2.049/80,7	165/6,5	70/154

NXM	WIDTH mm/inches	DEPTH mm/inches	HEIGHT mm/inches	WEIGHT Kg/lbs.
NXM-20 DECK	4.450/57.0	4 044/54 0	245/42 4	170/375
NXM-20 PIZZA DECK	1.452/57,2	1.311/51,6	315/12,4	188/414
NXM-20 DECK WITH STEAM	1.452/57,2	1.291/50,8(*)	315/12,4	220/485
PROOFER	1.452/57,2	1.065/41,9	706/27,8	100/220
BASE	1.452/57,2	1.065/41,9	150/5,9	60/132
ТОР	1.452/57,2	1.289/50,7	150/5,9	60/132

ELP	WIDTH mm/inches	DEPTH mm/inches	HEIGHT mm/inches	WEIGHT Kg/lbs.
ELP-20 DECK	1.132/44,6	2.189/86,2(*)	315/12,4	225/496
BASE	1.132/44,6	1.914/75,4	150/5,9	70/154
ТОР	1.132/44,6	2.138/84,2	165/6,5	70/154

LXP	WIDTH mm/inches	DEPTH mm/inches	HEIGHT mm/inches	WEIGHT Kg/lbs.
LXP-20 DECK	1.292/50,9	2.429/95,6(*)	315/12,4	260/573
BASE	1.292/50,9	2.154/84,8	150/5,9	70/154
TOP	1.292/50,9	2.378/93,6	165/6,5	70/154

(*)The depth should be increase in 23 millimetres for the pipes of outlet.

1.5 DELIVERY OF THE OVEN

The deck oven may be delivered in two different manners; either wholly assembled and prepared for connection to the voltage requested, and secondly, it may be delivered with the decks, base, worktop and stove or legs comprising the same, unassembled and prepared for assembly on site.

1.5.1 Assembled oven

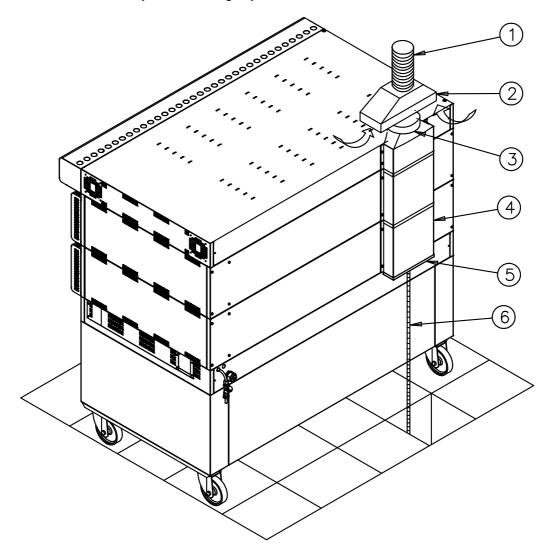
In order to connect the oven to the mains, please follow instructions as per chapter 1.6.2.

1.5.2 Unassembled oven

In this case, assembly must be carried out by a specialist, given that, apart from mechanical assembly of the oven, it is necessary to carry out electrical connection between modules, plus connection to mains and first performance tests.

Once modules have been piled upon the base and the worktop has been installed, proceed as follows: (See drawing)

- Place the corresponding collector on the back part of each deck (4), which is included in the box termed "MATERIAL DE ENVIO Nº 1 (DESPATCH MATERIAL Nº 1), following the order from the bottom towards the top, and fitting the top part of a collector to the bottom part of the other, a general collector for fume extraction is attained.
- In order to finish off this collector, place another with a cylindrical shape (3), which may be fitted with a chimney (1) for fume extraction to the outside, ALWAYS BASED on a suction hod (2) butane water heater type, which is the most efficient system and that which affects cooking least.
- Then place a closing lid (5) on the bottom part of the collector of the first deck which has been fitted with a draining pipe to evacuate the water produced by the effect of steam condensation.
- This draining pipe may be fitted with a rubber or plastic hose (6) up to a water collection vessel, or better still, directly to the drainage system.



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1.6 ELECTRICAL CONNECTION

Electrical connection must be carried out by authorized professionals, in accordance to present regulations in the country where the oven is to be installed.

Three phases plus grounding are required for connection to **230 V**, and three phases plus neutral phase and ground are required for connection to **400 V**.

IMPORTANT

Given that this type of oven is enlargeable, when you carry out the electrical connection it is recommendable that you use a larger diameter of cable and use components of greater amperage. This way you will be already electrically prepared when you decide to enlarge your oven by incorporating another deck or decks.

The tables below outline power, electricity consumption and cable sections for both 230 V and 400 V. Using the information contained in the tables it is possible to calculate cable sections in line with the EN 60204-1 regulation.

		MODEL				
		20 cm. Module	25 cm. Module	PIZZA Module	Steam Generator	Proofer
	E	7,8	9,8	9,8	1,4	1
	ED	13	16,3		2,5	
	ЕМ	4,9		6,2	1,4	1
POWER	EMD	9,1		11,5	2,5	1
(kW)	NXE	9,4		12,3	1,4	1
(KV)	NXD	17,3		16,2	2,5	1
	NXM	6,6		8,2	1,4	1
	ELP	9,1			1,4	
	LXP	11,4			1,4	
CONSUM (A) 200 V	NXD			49,2		5/-
	Е	21,6 / 12,4	27,0 / 15,6	27,0 / 15,6	3,5 / 2,0	5/-
	ED	34,7 / 19,3	43,5 / 24,1		6,3 / 3,6	
	EM	13,6 / 7,8		17,0 / 9,8	3,5 / 2,0	5/-
CONSUM	EMD	25,1 / 14,5		31,7 / 18,3	6,3 / 3,6	5/-
(A)	NXE	25,9 / 14,9		34,1 / 19,6	3,5 / 2,0	5/-
230 / 400 V	NXD	45,9 / 26,4			6,3 / 3,6	
	NXM	18,3 / 10,5		22,8 / 13,1	3,5 / 2,0	5/-
	ELP	24,0 /13,8			3,5 / 2,0	
	LXP	30,2 / 17,4			3,5 / 2	

The supply cable sections required by the **EN 60204-1** regulation are calculated using the total electricity consumption of the installed oven.

For example, the total consumption of an "E" oven formed by 2 decks of 20 cm height + 1 deck of 25 cm height with steam generator + 1 "Pizza" deck + 1 Proofer, connected at 400 V.

" E " OVEN	Quantity	Consumption / Unit	Part consumption
20 cm Module	2	12,4	24,8
25 cm Module	1	15,6	15,6
Pizza module	1	15,6	15,6
Steam Generator	1	2,0	2,0
Proofer	1	5	5
Total Consumption			63,0 A

The following are the electricity consumption related cable sections in line with the **EN 60204-1** regulation:

Consumption	Phase section (mm²)	Ground Section (mm²)
<14	1.5	1.5
14 <u><</u> A<19	2.5	2.5
19 <u><</u> A<25	4	4
25 <u><</u> A<32	6	6
32 <u><</u> A<45	10	10
45 <u><</u> A<60	16	16
60 <u><</u> A<76	25	16
76 <u><</u> A<94	35	16
94 <u><</u> A<111	50	25
111 <u><</u> A<140	70	35
140 <u><</u> A<173	95	50

The example oven, should be connected at **400 V** by a cable with a **25 mm²** section (minimum) for each phase and **16mm²** (minimum) for earth.

Modular ovens incorporate an energy-saving device which distributes power between the modules thereby reducing electricity consumption. Depending on configuration, a four-module oven can be made to work with the same amount of power required for a two or three-module oven. If the configuration is for three modules, the total electricity consumption will be the sum of the three most powerful modules. In these cases, the cable sections are calculated using the new total.

For example, the total consumption of an "E" oven formed by 2 decks of **20 cm** height + 1 decks of **25 cm** height **with steam Generator** + 1 **Pizza** decks + 1 **Proofer**) connected at **400 V**.

	Configured for 3 modules		Configured for 2 modules	
	Quantity	Consumption (A)	Quantity	Consumption (A)
20 cm Module	1	12,4	0	0
25 cm Module	1	15,6	1	15,6
Pizza Module	1	15,6	1	15,6
Steam Generator	1	2,0	1	2,0
Proofer	1	5	1	5
Total consumption 400 V (A):	50,6 38,2		38,2	
Minimum phase cable section (mm ²)	16		10	
Minimum earth cable section (mm ²)	16 10		10	

IMPORTANT

The electrical connection to the bottom module is prepared for connection to a cable of a maximum of **35 mm**² per phase and **16 mm**² for earth, in the event that the calculation of the cable section required is greater.

OPTION 1: To order special modules suitable for working at greater consumptions.

OPTION 2: Install the energy-saving device in such a way that the consumption never surpasses the one corresponding to a **35 mm²** cable section per phase and a **16 mm²** cable section for the earth lead.

1.6.1 Electrical connection between decks

If an unassembled oven is requested, it will be necessary to carry out, further to correct piling up of the units, the bridging of the power and control lines between the different deck that comprise the same. In order to gain access from each deck to the elements, where bridging is to be carried out, it will be necessary to dismount the louvered right hand panel of each deck; to this avail, unscrew the two hexagonal head screws which lock it onto the back of the deck, and it will be easily dismounted.

The oven generally comprises various superimposed decks; bridging of switches "R", "S" and "T", (tapping of power) is required using three copper strips (35 mm²), mounted between the inlet terminals of the respective switches.

It will also be necessary to connect between decks, and to this until avail, simply hook up the six pole male connector of the extreme of the regulating line of each deck, to the six pole female connector of the installation panel of the deck which is immediately under the same, and continue until the lower

deck where the male connector must be coupled to the female connector located on the transformer of the base is reached.

It will not be necessary to bridge the ground terminal between decks, as these are strongly joined together, and it will only be necessary to joint the ground cable to the terminal indicated on the base.

1.6.2 Power control connection

The power control connection between different modules is carried out by connecting terminals 5 and 6 of the different modules with a cable (see electrical drawing).

1.6.3 Electric connection for the oven to the mains

- Electric connection of the oven to the mains must be carried out by a professional electrician. The
 cost of the same must be pay by the client.
- If the oven is prepared to work at **230 V. III**, through the large gland on the back of the base, insert a hose with three conductors "R", "S" and "T", plus earth, with the appropriate section according to the total consumption of the oven, connected respectively to the "R", "S", "T" and earth terminals installed in the bottom module. (**See diagram**).
- If the oven is prepared to work at 400 V. III, as well as the hose and earth, as indicated in the
 previous paragraph, you must also insert the "neutral" conductor through one of the plastic glands
 on the back of the base and connect it to the terminal strip on the bottom module marked "N" (See
 diagram).
- The inside of the back of the base has a hole through which the supply cables can be passed. This
 means that in the case of large ovens the oven can be moved closer to the back wall. This can only
 be carried out with ovens which are not equipped with a stove.

It is essential that a switchboard, fitted with the necessary elements for protection and tripping, be installed between the general mains and the oven. See chapter *5.1* (Start-up of oven and modules)

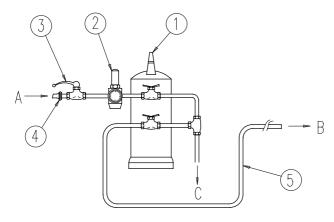
1.7 WATER INSTALLATION (Only for decks with steam)

It is very important that feedwater to the oven be demineralized.

The location where the oven is to be fitted should have a water intake with pressure between **1,5** and **2,5** Kg/cm².

The oven is provided with a ½" male pipe. The connection between the connector and the oven will be by flexible hose of inner minimum diameter **0.4 inches (10 mm).**

NOTE: For those cases in which water is calcareous, it is necessary to install a decalcifier between the supply network and the oven intake. (*Not supplied with the oven*)



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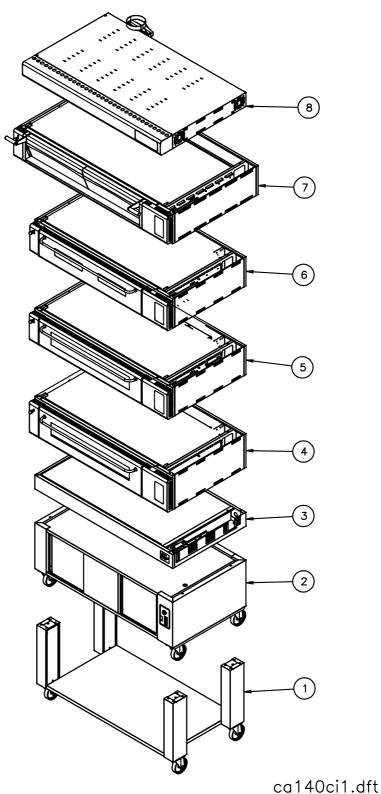
- A Water intake from network.
- **B** Water input to oven.
- C Drain-off from decalcifier
- 1 Decalcifier
- 2 Pressure regulator.
- 3 3/8" manual valve
- **4 -** Couple hose 3/8"
- **5 -** Coupling hose.

1.8 DRAINAGE (Only for decks with steam)

It is necessary to construct a drain of diameter at least 1". This should preferably be made of metal and should be temperature-resistant in any case. It will be coupled to the oven by a flexible hose of internal diameter 0.7 inches (18 mm).

2. DRAWING

2.1 BASIC PARTS OF THE OVEN



- 1- Supporting plate (shelf).
- 2- Proofer.
- 3- Base
- 4- 9.8 inches (25 cm) baking deck.
- **5-** 7.9 inches **(20 cm)** baking deck.
- 6- 7.9 inches (20 cm) pizza deck.
- **7-** 7.9 inches **(20 cm)** baking deck.
- 8- Top module.

2.2 KEY PLAN

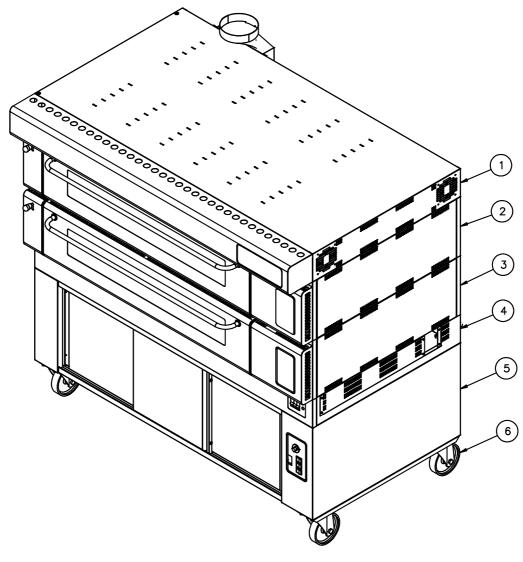


FIG. 2

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- **1-** Top with hood included.
- 2-7.9 inches (20 cm) baking deck.- Crown height.
- 3- 9.8 inches (25 cm) baking deck.- Crown height.
- **4-** Base.
- 5- Proofer (Optional).
- 6- Wheel with 6.3 inches (160 mm.) nylon castor.

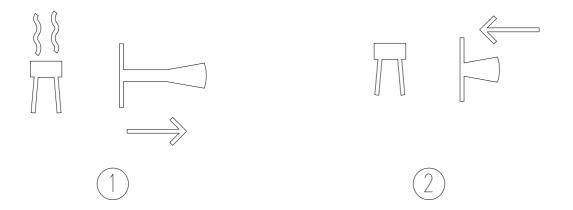
3. OUTLET OF BAKING STEAM

A collector of cooking steams is located on the back of each deck, and the opening and closing of the same is regulated by a throttle-lid actuated by a control lever, located on the left hand side of the front panel.

3.1 DRAFT

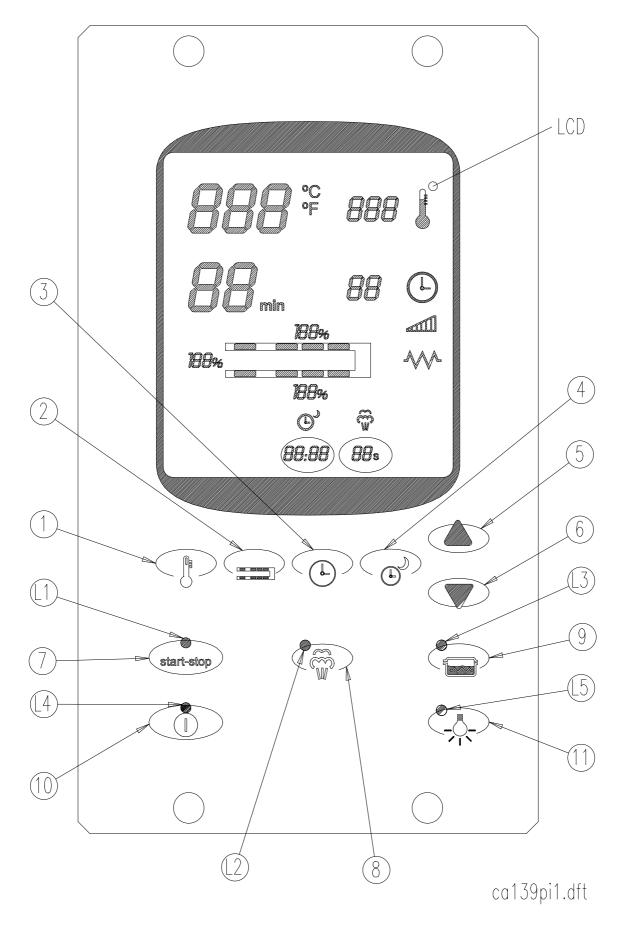
Regulation of opening and closure of cooking steam outlet is carried out by actuating "Z" draft control (see drawing), located on the top part of the control panel. Pulling this control to the limit, the draft opens, and pushing it to the limit, the draft is closed.

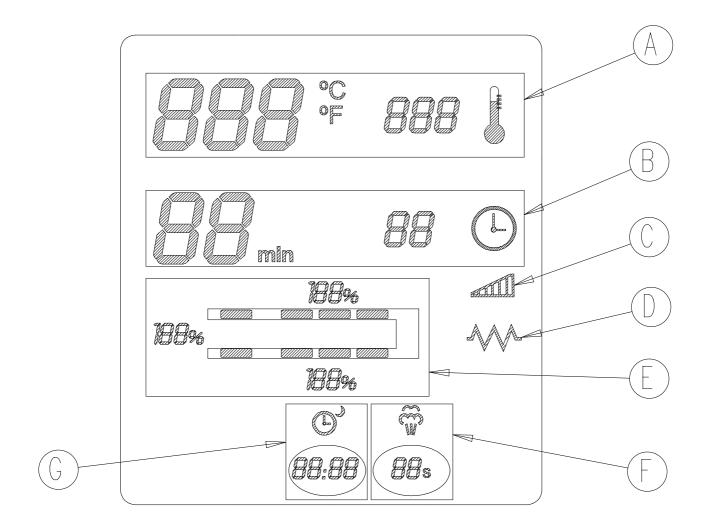
- z- Draft control
- 1- Open draft
- 2- Closed draft



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4. ELECTRONIC CONTROLPANEL





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- A-. Temperature control.
- B-. Baking time control.
- C-. Power control.
- **D-.** Steam Generator.
- **E-.** Power regulator.
- F-. Steam.
- G-. Delay timer.

4.1 DETAILED DESCRIPTION OF CONTROL PANEL

- a) Keys: The following list indicates the function of each key, according to the number on the corresponding drawing.
 - <1> Pushbutton for selecting cooking temperatures.
 - <2> Pushbutton for selecting the power to be applied to the top, front or bottom elements. Each time this button is pressed, the element for which the power is to be modified changes.
 - <3> Pushbutton for selecting the cooking time.
 - <4> Pushbutton for selecting the time required for a timed start-up.
 - <5> Pushbutton which increases the value of the figure flashing on and off.
 - <6> Pushbutton which decreases the value of the figure flashing on and off.
 - <7> Pushbutton which starts / stops the programmed cooking time.
 - <8> Pushbutton which enables a steam injection in ovens equipped with a stream generator.
 - <9> Pushbutton which connects / disconnects the steam elements.
 - <10> Pushbutton which connects / disconnects the control panel.
 - <11> Pushbutton which connects / disconnects the oven light.

b) LED indicators

<L1> Led which, when lit, indicates that a cooking operation is in progress.

When flashing, this light indicates that time has been added on to a finished cooking process.

- <L2> Led which, when lit, indicates that steam is available.
- <L3> Led which, when lit, indicates that the steam elements are connected.
- <L4> Led which, when lit, indicates that the control panel is connected.
- <L5> Led which, when lit, indicates that the oven light is connected.
- c) LCD Screen: This screen displays information regarding the status of the oven control elements.

• TEMPERATURE CONTROL ZONE:

Displays the real oven temperature (larger digits) and the programmed temperature (smaller digits), and indicates the unit of measurement (°C or °F) and whether or not the real temperature corresponds to the programmed one (depending on whether or not the thermometer is activated).

• COOKING TIME CONTROL ZONE:

Displays the time remaining until the end of the cooking process (larger digits) and the programmed time (smaller digits).

• POWER SETTING ZONE:

Displays the profile of the oven, the status of the elements in each of the zones (top, front and bottom) and the power setting assigned to each of them.

• STEAM ZONE:

Tells the user that the steam electrovalve is connected and displays the seconds remaining until it is disconnected.

• POWER CONTROL ZONE

This zone is activated when the oven is working with power control.

• TIMED START-UP ZONE

Displays the time remaining until the oven is switched on, expressed in hours and minutes.

4.2 OPERATION OF CONTROL PANEL

4.2.1 Automatic regulation of deck temperature.

Once you have connected the general switch on the control panel using key 10 (L4 Led on), the temperature in the module chamber can be controlled using keys 1 (the temperature will flash on and off) 5 and 6. You can select the temperature you require for the cooking process to be carried out (within the established range) and the oven will automatically ensure that it remains constant. This temperature is displayed on the LCD screen in the temperature control zone. To return to the normal screen, press key 1 once again or simply wait ten seconds.

Using keys 2 (which displays the different power settings in flashing mode), 5 and 6, you can adjust the temperature setting for the top, bottom or front elements independently, choosing the most suitable setting in each case. This enables you to establish a series of temperature combinations with which to ensure ideal cooking conditions for each product. When the top, bottom and front elements are activated, the corresponding segments will light up. This is displayed on the LCD screen, in the power setting zone. In order to return to the normal screen, press key 2 once again or simply wait 10 seconds. Temperature measurement.

The temperature control zone on the LCD screen indicates the temperature inside the cooking chamber at all times, in either degrees centigrade or degrees Fahrenheit.

When the temperature symbol is displayed, this indicates that the temperature of the chamber is lower than the programmed temperature.

4.2.2 Compensating loss of temperature inside the chambers due to opening of door

Inside the chamber. two heating units are located both on the roof and on the floor of the mouth, and these have been designed to compensate temperature losses which are due to opening of door of the deck in order to load and unload the product. Temperature regulation in these heating units is carried out by **pushbutton 2**, **5 and 6**.

The power setting zone of the LCD screen indicates whether the respective heater units are on or off, and displays the setting assigned to each unit.

4.2.3 Regulation of baking time.

You can adjust the cooking time using **keys 3 (the time will flash on and off), 5 and 6**. To return to the normal screen, press **key 3** once again or simply wait 10 seconds.

The cooking time control zone on the LCD screen indicates the programmed cooking time, as well as the real cooking time.

When **key 7** is pressed **(L1 LED on)**, the system starts to register the programmed cooking time. If a clock symbol is displayed, this indicates that a cooking programme is in progress.

Once the cooking time has expired, the acoustic alarm will sound. To switch the alarm off or to switch off the timer, press **key 7** once again **(L1 LED off)**.

4.2.4 Only for ovens with steam production.

Check that the L3 Led is lit. If not, press key 9.

When the **L2 Led** is lit, steam can be injected by pressing **key 8**. If you require a greater or lesser quantity of steam, adjust the electrovalve activation time.

When the steam generator elements are activated, **the element of the boiler zone** is displayed on the **LCD screen**.

The steam injection time is displayed in the steam zone of the LCD screen.

4.2.5 Power control.

When the oven has been set up so that its modules work with power control, the power control symbol will be displayed in the power control zone of the LCD screen.

4.2.6 Timed start-up.

Keys 4 (the waiting time flashes on and off), 5 and 6 enable you to select the time (in hours) to transpire before the oven is switched on. Once the required number of hours has been selected, press **key 7** to initiate this operating mode.

All the oven elements will be switched off and the LCD screen will display only those details corresponding to the time remaining until the oven is switched on.

If you wish to interrupt this operating mode, simply press key 7 once again.

The oven is not equipped with a real-time clock, which means that in the event of a power cut occurring during the timed start-up operation, the start-up process will be delayed by the same amount of time as the duration of the power cut.

This is displayed on the LCD screen, in the timed start-up zone.

4.2.7 User setting sequence:

Operating keys:

To leave the setting sequence.

To confirm selected values and advance to the following variable.

<8> To return to the previous variable.

<5><6> To modify the values shown for each variable.

Password:

Once the above password has been entered, the following messages are shown:

"nid"

With this variable you can assign the oven's identification number in the power control applications. In a tower of modular ovens, the existence of two or more electronic panels with the same identification number will mean that the power control cannot operate.

Possible values:

Minimum 1

Maximum 5

Standard 1

"sim"

With this variable you can indicate how many ovens can work simultaneously in the power control applications. In a tower of modular ovens, all the ovens must have the same value assigned for this variable.

If the selected value is 5, this indicates that the electronic panels can work independently.

Possible values:

Minimum 1 Maximum 5 Standard 5

"FAR"

With this variable you can select the unit on which the temperatures will be represented.

The rest of the variables which contain a temperature value will be expressed in the selected unit.

Values:

Minimum 0 Unit of measure in $^{\circ}$ C. Maximum 1 Unit of measure in $^{\circ}$ F. Standard 0

"TCH"

With this variable you can select the value of the regulator of the oven top resistances expressed in %. The value selected will be assigned by default to the equipment's connection.

Possible values:

Minimum 0 0% power. Maximum 10 100% " Standard 5

"BOC"

With this variable you can select the value of the regulator of the opening resistances expressed in %. The value selected will be assigned by default to the equipment's connection.

Possible values:

Minimum 0 0% power. Maximum 10 100% " Standard 5

"SUE"

With this variable you can select the value of the regulator of the oven base resistances expressed in %. The value selected will be assigned by default to the equipment's connection.

Possible values:

Minimum 0 0% power. Maximum 10 100% " Standard 5

"TPU"

With this variable you can select the action time of the steam electrovalve. The time is expressed in seconds.

Possible values:

Minimum 0 Indicates that the oven has no vaporiser.

Maximum TPA standard.

Standard 5

"CAL"

With this variable you can define the status of the reboiler resistances when the panel is connected.

Possible values:

Minimum 0 Reboiler resistances at OFF when connected.

Maximum 1 Reboiler resistances at ON when connected.

Standard 1

"PIT"

With this variable you can define the duration of the acoustic signal which marks the end of the baking.

It is expressed in seconds.

Possible values:

Minimum 0 Indefinite operation until the <7> key is pressed Maximum 255
Standard 20

"TPO"

With this variable you can define the baking time which will be assigned when the equipment is connected.

It is expressed in minutes.

Possible values:

Minimum 0 Maximum 99 Standard 0

"Tem"

With this variable you can define the set point temperature which will be assigned when the equipment is connected.

It is expressed in the unit of measure selected in the variable "FAR".

Possible values:

Minimum 60℃ Maximum 350℃ Standard 200℃

"STB"

With this variable you can define the time allowed for the operation of the oven, after a timed start up.

Once this time has finished, if no operations have been carried out on the oven, the operation of the oven will be stopped causing a **FIN CAL** alarm. Its function is to provide safety conditions in the event of an unattended timed start up. It is expressed in minutes.

Possible values:

Minimum 0 The value 0, cancels the timed start up function.

Maximum 60

Standard 60

"VIS 000"

This variable shows the last alarm produced.

The alarm number is shown in the figures on the right.

This function can only be controlled by the Technical Service at Industrial Salva.

This variable CANNOT be modified.

"Ctr"

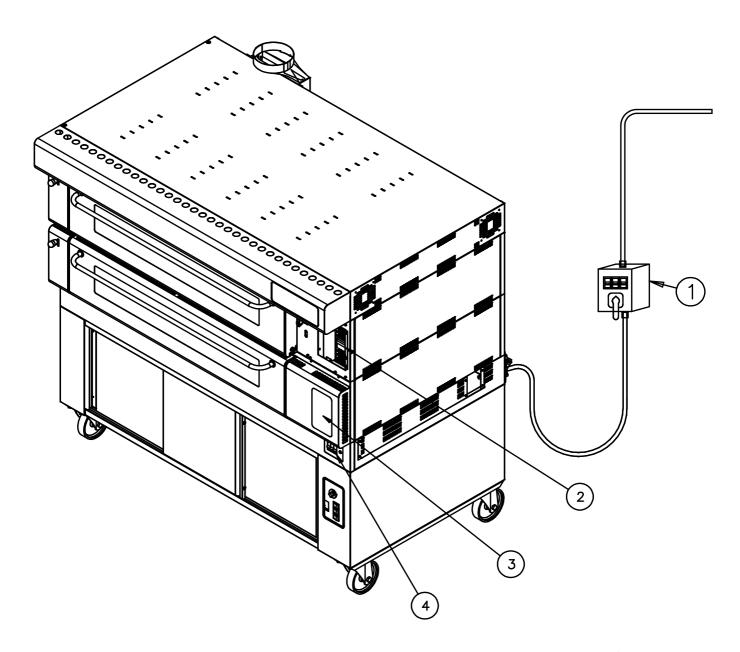
The user can adjust the LCD display contrast. Press button <5> then, while keeping it pressed, press button <2>.

To return to the normal working screen, simply click any of the function keys (<1>, <2>, <3> or <4>).

Minimum 0 Maximum 100

5. PERFORMANCE

5.1 START-UP OF OVEN AND MODULES



ca141ci3.dft

- 1. Connect general switch to mains. (1)
- 2. Connect circuit breaker switch of the BASE, regulation line, (4) top position.
- **3.** Connect the thermal magnetic switch located behind the module's right-hand control panel tray, by moving it to its upper position (2).
- **4.** Connect the module's **CONTROL PANEL** switch by pressing key **10** (3). The **L4 Led** light will come on.

5.2 HEATING OVENS WITH CASE-HARDENED BASES FOR THE FIRST TIME RIMER

III ATTENTION - VERY IMPORTANT !!!

In the setup of the oven during the first heating, <u>it is necessary</u> to increase the temperature in accordance with the following cycle:

Heat for at least 3,5 hours at 300 °C, leaving only the top heating elements connected. The heating elements of the bottom and front should be switched off. That is to say:

- Modular Deck Ovens: Set temperature: 300 °C with following settings: FRONT:0 / BOTTOM:0 / TOP:100.
- Pizza Ovens 4-30: Bottom thermostat switched off / And top thermostat at 300 °C.

This will enable you to dry any left over humidity or other materials on the base. During this phase, the oven produces fumes as a result of the said evaporation. These fumes can be evacuated by holding the door open for a few minutes at the end of the cycle, in order to speed up the air exchange process. When you have finished, close the door.

After this first heating process, the oven is now ready to be used in the normal way.

If these instructions are not followed, this could result in the oven having a breakdown, with important faults.

5.3 EXAMPLE OF A BAKE

You wish to bake a product at 180° C with:

- 70% power in the roof.
- 50% power in the mouth.
- 40% power in the floor.
- Baking time 20 minutes.

In order to do this you must do the following:

- 1) Connect the control panel by pressing key 10 (the L4 Led will come on).
- 2) Select a programmed temperature of 180° C in the temperature control zone of the LCD screen. To do so, use keys 1, 5 and 6.
- 3) Adjust the settings in the power setting zone of the LCD screen. To do so, use keys 2, 5 and 6. Press key 2 once again to select the element whose power setting you wish to modify: bottom, top or front.
- 4) Set the cooking time to 20 minutes in the cooking time control zone of the LCD screen. To do so, use keys 3, 5 and 6.

5) Press key 7. The L1 Led will come on, indicating the cooking programme. The cooking time control zone of the LCD screen will display the cooking time remaining (large digits). When this time has transpired, the buzzer will sound indicating the end of the programme.

NOTE. Although the buzzer sounds, the heating elements go on heating, therefore the goods should be removed from the oven.

5.4 TURNING OFF THE DECKS AND THE OVEN.

To turn off the decks and the oven, once work is complete, procedure is the reverse of that employed in starting up.

- Disconnect the module's CONTROL PANEL switch by pressing key 10 (3). The L4 Led will switch off.
- 2) Disconnect the thermal magnetic switch located behind the module's right-hand control panel tray, by moving it to its lower position (2).
- 3) Disconnect the thermal magnetic switches of the BASE, by moving them to their lower positions.
- 4) Move the main switch at the network intake to OFF.

5.5 DISTRIBUTION OF GOODS.

So as to obtain good uniform bakes, it is great importance that the goods are correctly distributed within the baking chamber, that is in a regular manner. In many occasions bad results are obtained by not taking into account the following points:

- The goods should be equally distributed over the surface of the tray.
- The pieces that are placed on the tray should have the same size and weight.
- The batches should be with completely loaded trays and all trays with the same product.
- All the trays should have the same measurements, and be made of blued plate of the same thickness.
- If the glass surfaces are kept clean, perfect vision of the product, in the process of being cooked, is attained, and, therefore, it is not necessary to open the door other than for loading and unloading.
- When introducing or removing the batches of products, it is very useful to have the racks near
 so as to easily introduce or remove the trays; this way saving time in loading and unloading
 the loss of heat for having the door open too long and achieving a very uniform bake.

5.6 INTERIOR DECK LIGHTING.

To turn on the lighting inside the deck, first move the MCB switch (top position) (4) of the base to ON and then also the switch (11) on the LIGHTING PANEL next to the control panel.

6. MAINTENANCE INSTRUCTIONS

IMPORTANT

Maintenance and reparation works should be made by the Official Technical Service.

IMPORTANT: Before any maintenance or reparation jobs are carried out on the oven, please make sure that main switch has been disconnected (1), see chapter 5.1. (OFF position).. If it is possible, try to do all maintenance with the oven disconnected from the electrical supply.

The following steps are regulations to be followed in order to increase the life of the oven and to get a higher performance:

- The doors should never be brusquely opened or slammed, as the springs, ball bearings and the axle could suffer damage, get loose and not close properly.
- It will be essential to disconnect the main switch, once work has been completed; if by chance this is not done, it is possible that a given group of heating elements may wear sooner than normal.
- A normal load of work does not wear the electric oven, as long as operation is normal; it can
 withstand uninterrupted shifts for a long time. Nevertheless, if by any circumstance any given
 deck has to be inactive, it is advisable to heat it at least once a month, in order to avoid
 humidity from damaging heating elements, electronic circuit, terminal's insulation, etc.

Daily maintenance

The external parts of the oven should be cleaned applying a soft cloth with soft detergent.

Monthly maintenance

It is necessary to clean the steam outlet collector.

The internal parts of the oven should be cleaned: floor, roof, and sides.

It is advisable to clean the door windows, as well as the lighting eye of the chamber, once a week, applying a non-abrasive film of detergent, when glass is warm, and cleaning with a humid cloth, after one minute.

Spots and pourings inside and outside the door have to be cleaned with a moistened cloth (soap and water) and dried up with a clean cloth. Watch out that water does not get into the control panel and the electrical parts of the oven.

NOTE: If this oven is been used continuously without stop, the internal parts of the oven has to be cleaned more than once a month.

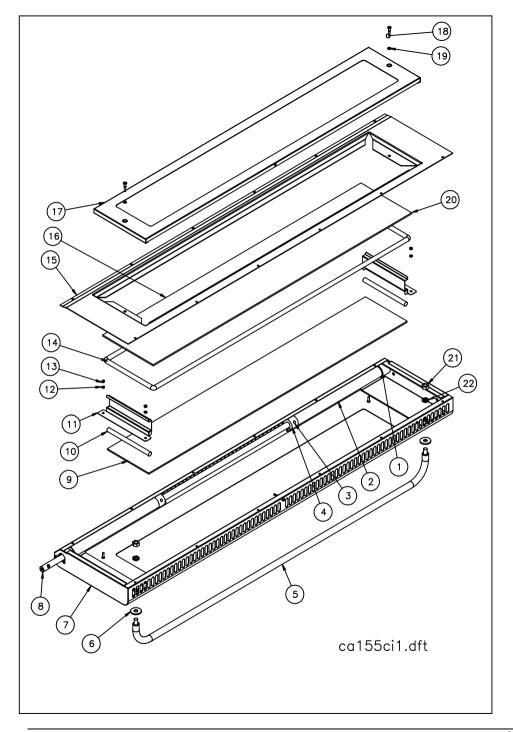
<u>6 month period maintenance</u> (should be made by the Official Technical Service)

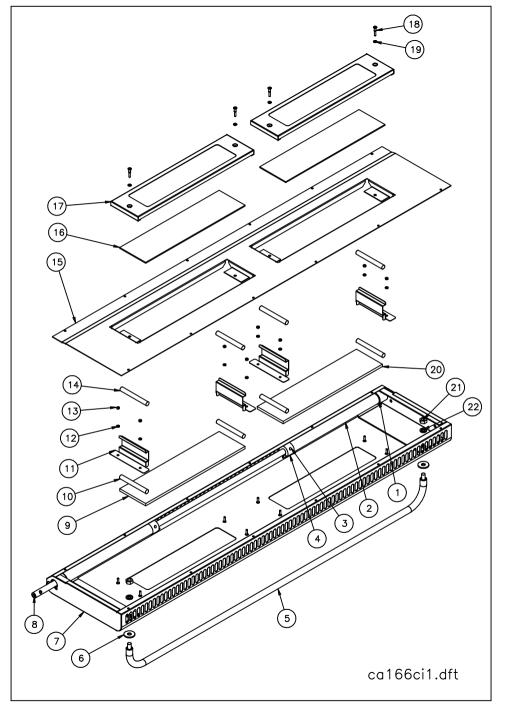
The electrical parts of the oven should be cleaned.

NOTE: Dust and flour could provoke malfunctions of the electrical components of the electrical control box.

In order to change the lamp when it fuses, proceed as follows:

- 1- remove the screws (18) that join the inner tray (17) to the inner cover (15), thereby enabling you to remove the tray and the inner glass panel.
- 2- in order to replace the inner glass panel, remove the old panel (20 PASTRY DOOR /16 PIZZA DOOR) and position the new one by applying heated silicone along the edge which joins it to the inner tray (17).
- **3-** in order to replace the outer glass panel **(9)**, remove the nuts and the panel separators **(11)** and then replace the panel.
- 4- Follow the steps outlined in **point 1-** in reverse in order to reassemble the inner tray **(18)** on the inner cover **(4)**.

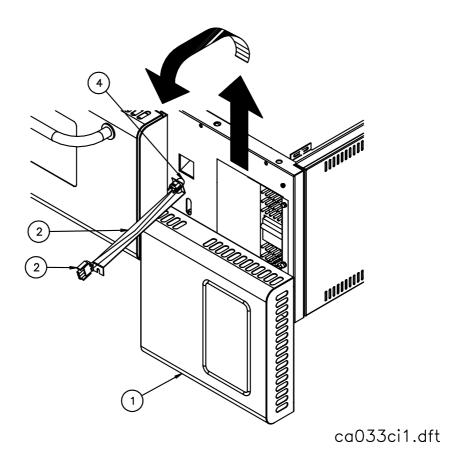




To change the lamps, proceed as follows:

Open the control panel tray (1). Remove the connection terminal (2) corresponding to the lighting cable. Remove the lamp-holder assembly (3). Remove the halogen bulb (4) and replace. To change the bulb on the left-hand side of the chamber, proceed in the same way.

WARNING: when inserting a new bulb, do not touch it directly with your fingers. Use a clean, dry cloth when handling. Follow the process described above in reverse order to replace the lampholder assembly.



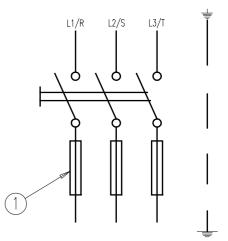
7. MISFUNCTIONS AND THEIR POSSIBLE SOLUTIONS.

If irregularities are observed in the working or unevenness in the bake, an electrician should advised so that the installation can be revised. If no apparent defect is found in the line, the oven should be revised again according to the following instructions:

 If all the deck do not work or do not work well, the failure is not in the oven and the oven current feeding fuses (1) should be verified.

Verify whether the voltage between phases is correct.

 If it is observed that the circuit breaker of a deck has tripped, this is a clear sign that the failure proceeds from that module. As an emergency measure disconnect this deck and continue working with the others.



- If it is observed that the base circuit breaker has tripped, this is a signal that there is a failure in the base transformer, in which case the oven should be disconnected and work with it should be discontinued.
- In both cases SALVA INDUSTRIAL, S.A. or its official distributor should be rapidly advised so that they can send out specialist to solve the problem.

8. GUARANTEE

Our products are guaranteed against every failure or manufacturing defect, within a correct use of them.

The guarantee does NOT apply to the substitutions and mending appearing from:

- An abnormal use of the machine.
- The damage or accidents originated by negligence.
- Lack of maintenance.
- Defective installation or use of the devices.

The guarantee is limited to the replacement and repairing of damaged pieces as a consequence of construction defects, being at your charge both manpower and travelling.

The door joint, glasses and lamps are not included in the guarantee.

The normal guarantee time of the materials goes up to six months.

In no case, not even in specials or foreseen cases, the guarantee will be reduced to the half.

Guarantee conditions

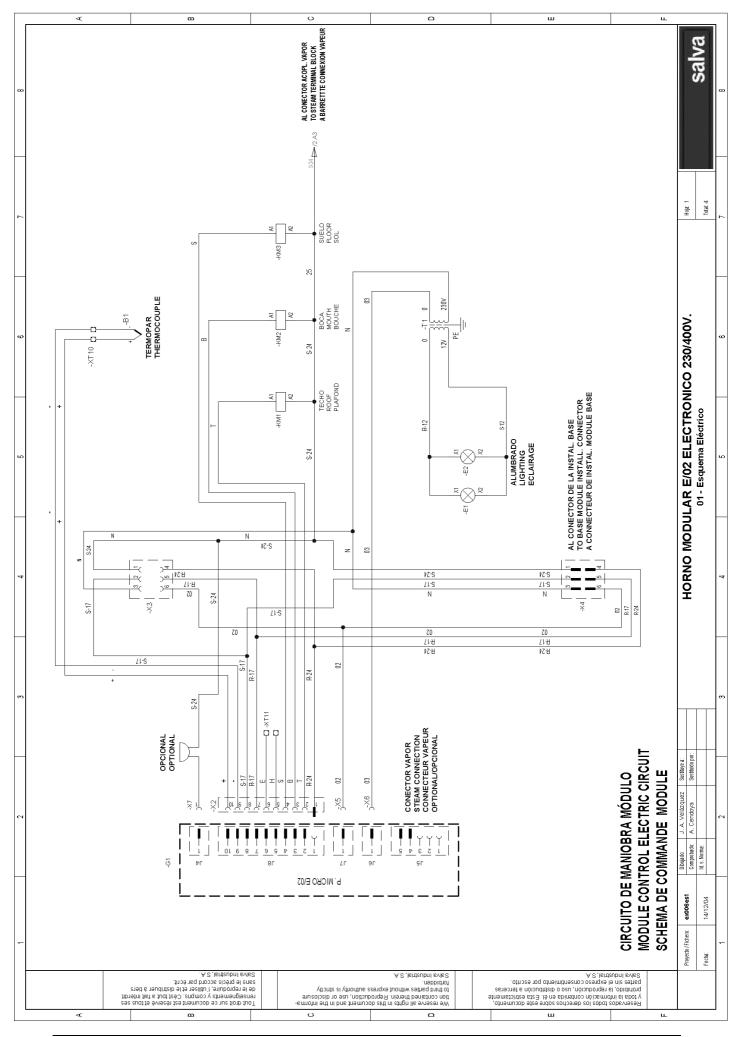
The materials must be installed, used and kept in the conditions shown in this "Using guide".

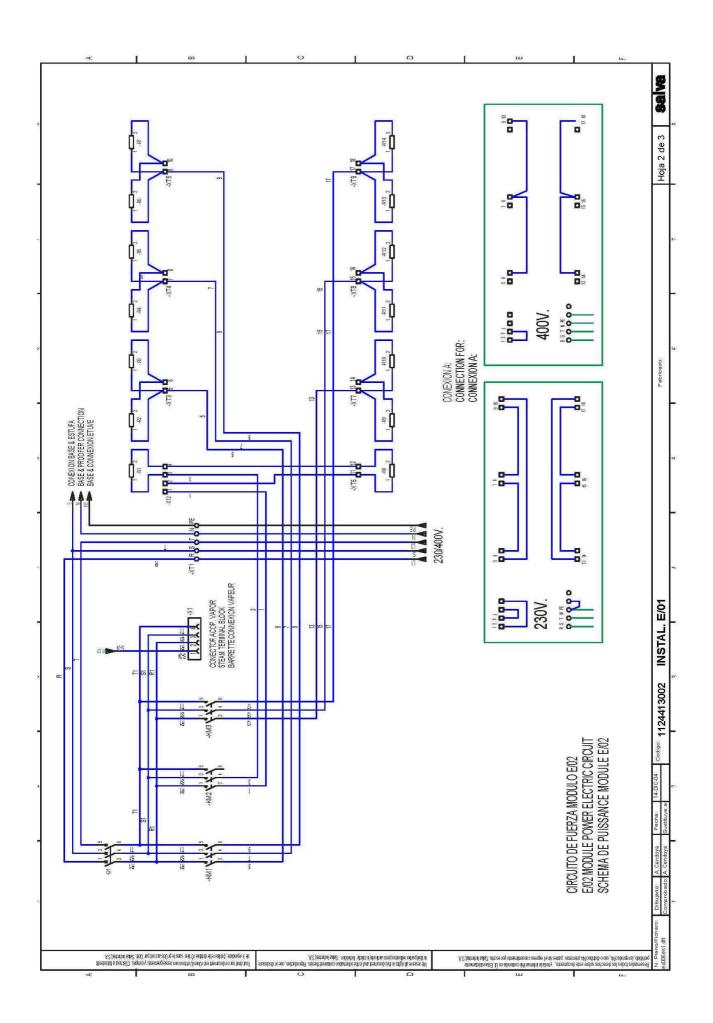
The problems which require the help of an engineer, will only have to be solved by the After-Sales Service Department of SALVA INDUSTRIAL S.A. or by one of our distributors.

If these watchwords are not respected, the guarantee may not apply.

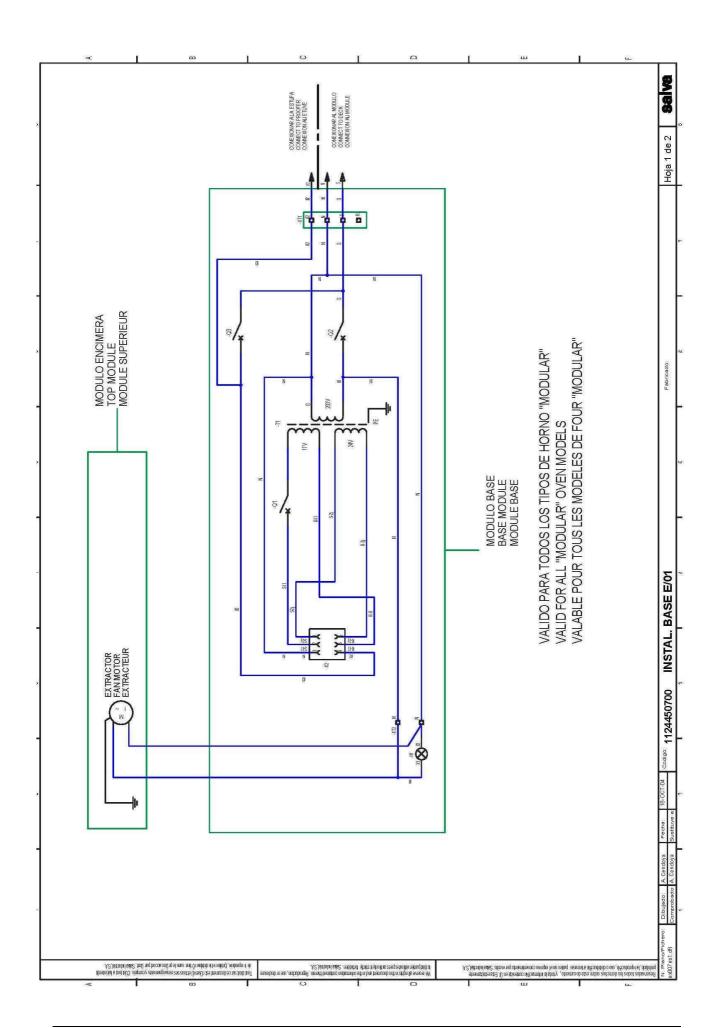
SALVA, in its constant research of improvement concerning its products, reserves the right of making any modifications without previous notice.



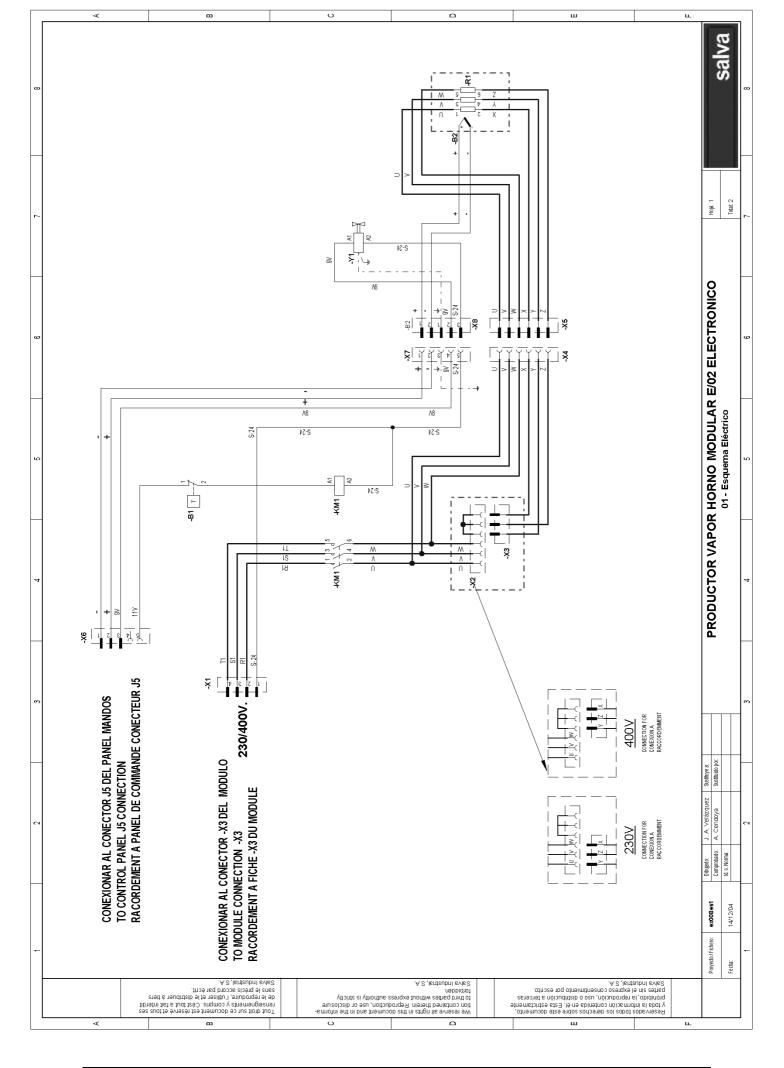




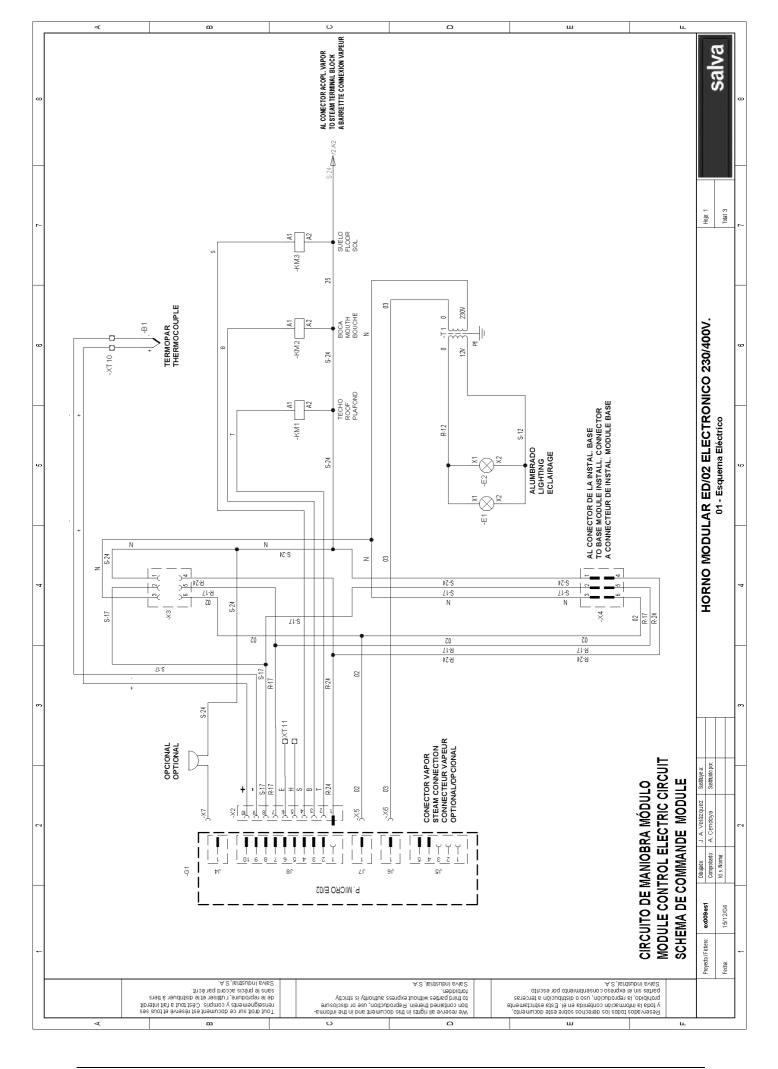
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	Componente	EISD	HAL 64428 20W 12V 300G OSRAM	WOSLO VS 32700	HAL 64428 20W 12V 300G OSRAM	WOSLO VS 32700	E/02	DIL 00M+10 24V 50/60HZ KM	III C 6KA 32A MG	CALENT, E-15/80 230V		50W 230M 2V ELT	CINTISA 160/4 BU	POULAIN H SM-210-ZM	AMP H 6V 14807040	AMP HEMBRA 926.882-1	AMP M 6V 1480705-0	AMP MACHO 926.883-1	AMP FASTON 22/16 735278-0	WDU 16 10204.8 AZUL	WDU 35 10205.0	WPE 16 10104.0	RALOCAR 1000-2	RALOCAR 1000-4	RALOCAR 1000-2		
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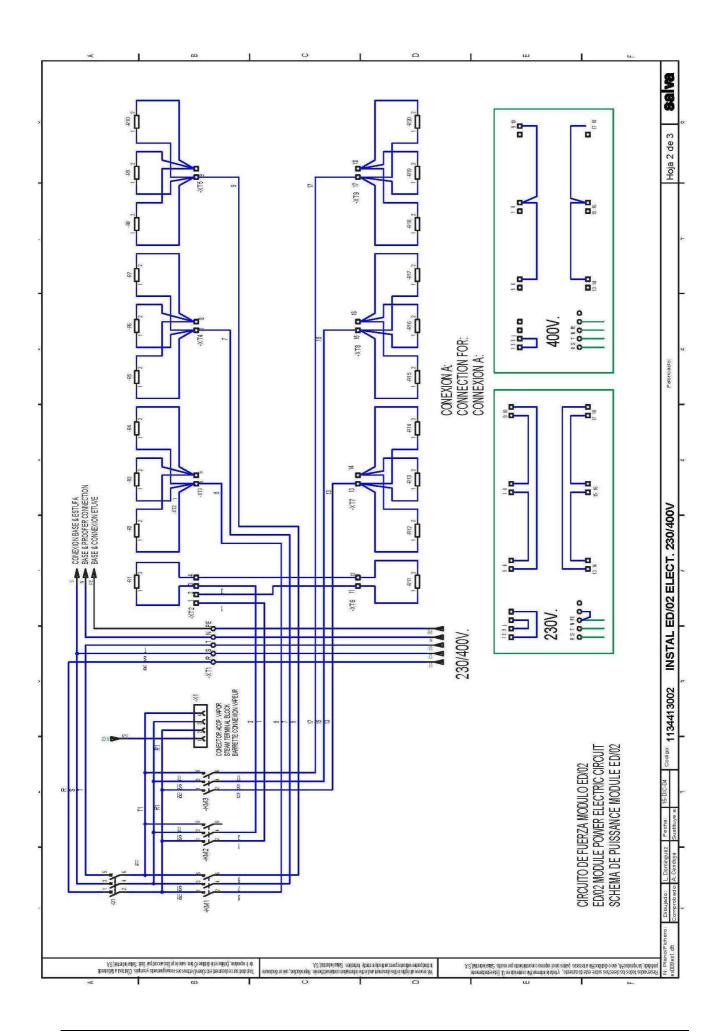


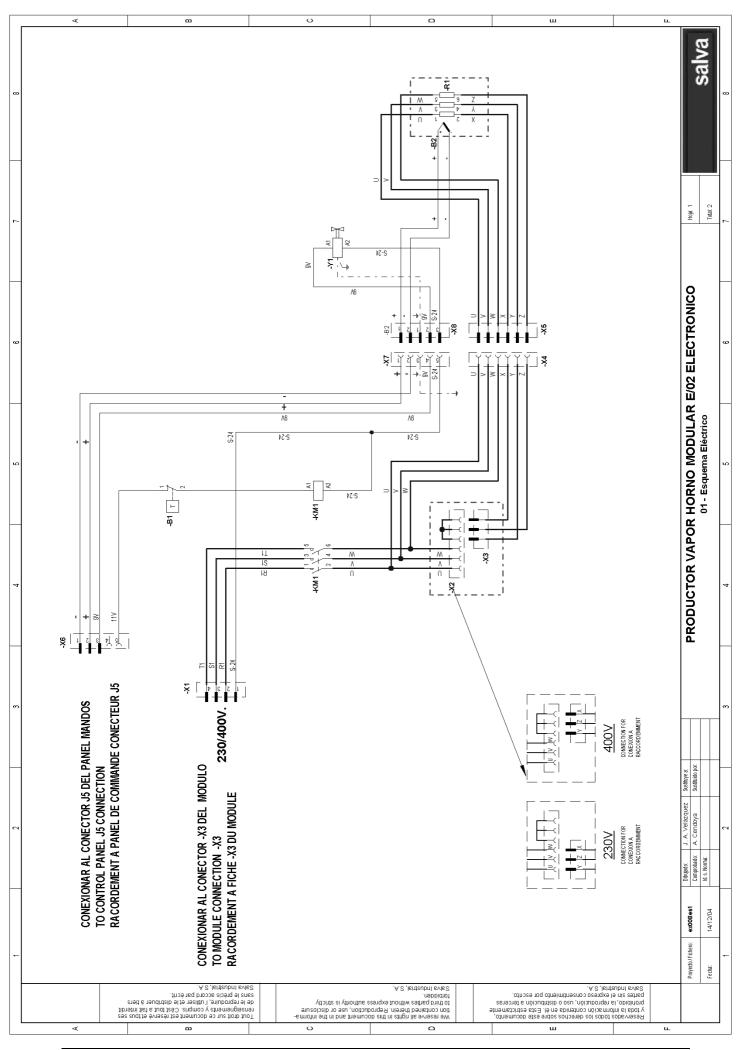
	<u> </u>	600	1			1			ပ	8		1				<u> </u>		ш					
	F										 _			 	 		 					r	
	Denomination		R.	%	WATEUR	UR	VATEUR																
		VOYANT	DISJONCTEUR	DISJONCTEUR	TRANSFORMATEUR	CONNECTEUR	TRANSFORMATEUR								_	4							
Situaci¾n:	Denomination																						
S	Denoi	INDICATORLIGHT	CIRCUIT BREAKER	CIRCUIT BREAKER	TRANSFORMER	CONNECTOR	TRANSFORMER																
	acion																						
	Denominacion	INDICADOR LUMINOSO	MAGNETOTERMICO	MAGNETOTERMICO	TRANSFORMADOR	CONECTOR	TRANSFORMADOR																
uperior:	/ Nom																						
Asignacion a Nivel Superior:	Nombre / Name / Nom	H-	-01	-02, -03	-11	-X2	-X2	-XT1	-XT2														
Asign	Pos.	_	2	3	4	5	9	7	8						1	ightharpoonup			Î		П		



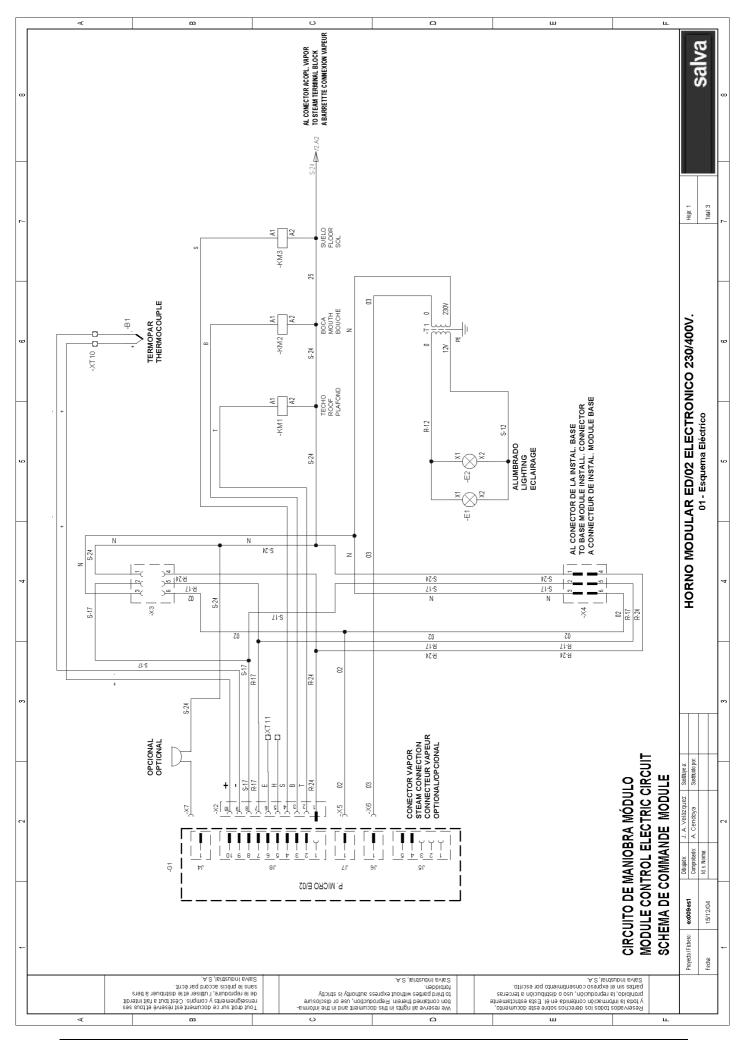
P personal p			r:	Situación:									
	os.	Nombre / Name / Nom	Denominacion	Denomination	Denomination								
Dar ecrit		-B1	TERMOSTATO DE SEGURIDAD	SAFETY THERMOSTAT	THERMOSTAT DE SECURITE								
2		-B2	TERMOPAR	TERMOCOUPLE	TERMOCOUPLE								
Strial, S		-KM1	CONTACTOR	CONTACTOR	CONTACTEUR								
a ludar a		-R1	CALENTADOR	HEATER	RESISTANCE								
Salva Salva 5		-X1	CONECTOR	CONNECTOR	CONNECTEUR								
6		-X2	CONECTOR	CONNECTOR	CONNECTEUR								
7		-X3	CONECTOR	CONNECTOR	CONNECTEUR								
8		-X4	CONECTOR	CONNECTOR	CONNECTEUR								
9		-X5	CONECTOR	CONNECTOR	CONNECTEUR								
10	0	-X6	CONECTOR	CONNECTOR	CONNECTEUR								
<u>1</u>	1	-X7	CONECTOR	CONNECTOR	CONNECTEUR								
12	2	-X8	CONECTOR	CONNECTOR	CONNECTEUR								
bidden.	3	-Y1	ELECTROVALVULA	SOLENOID VALVE	ELECTROVANNE								
Standard													
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lento par escrito.	-												
nsentimiento													
a reproducion el expreso con strial, S.A.													
partes sin el Salva Indust													

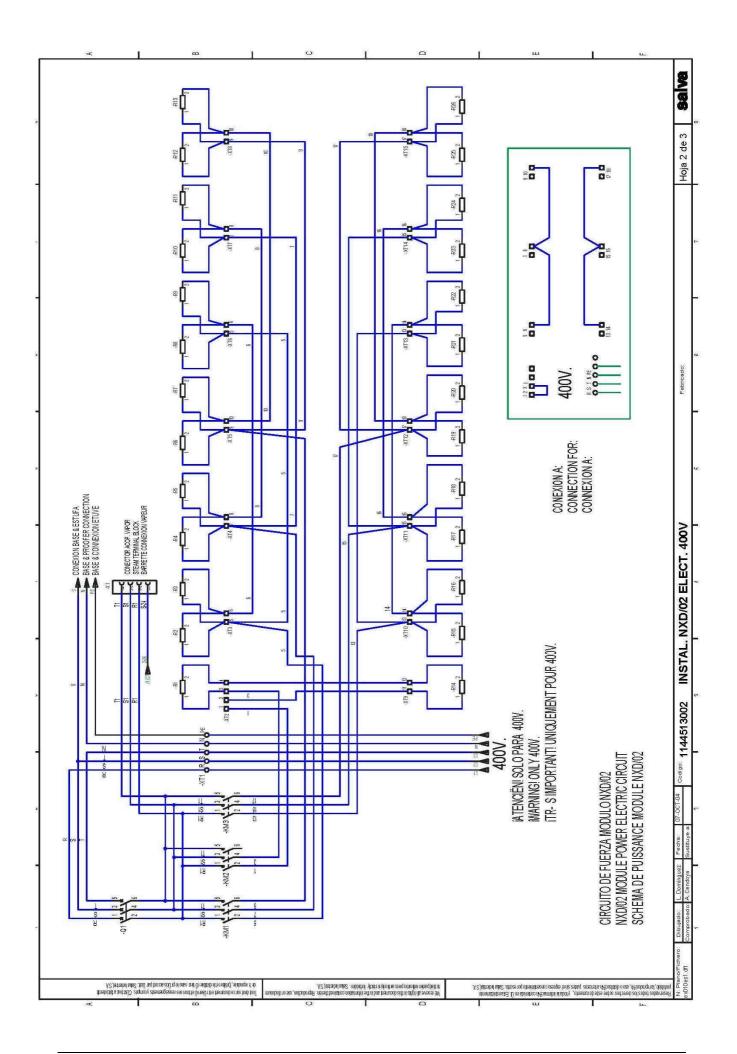




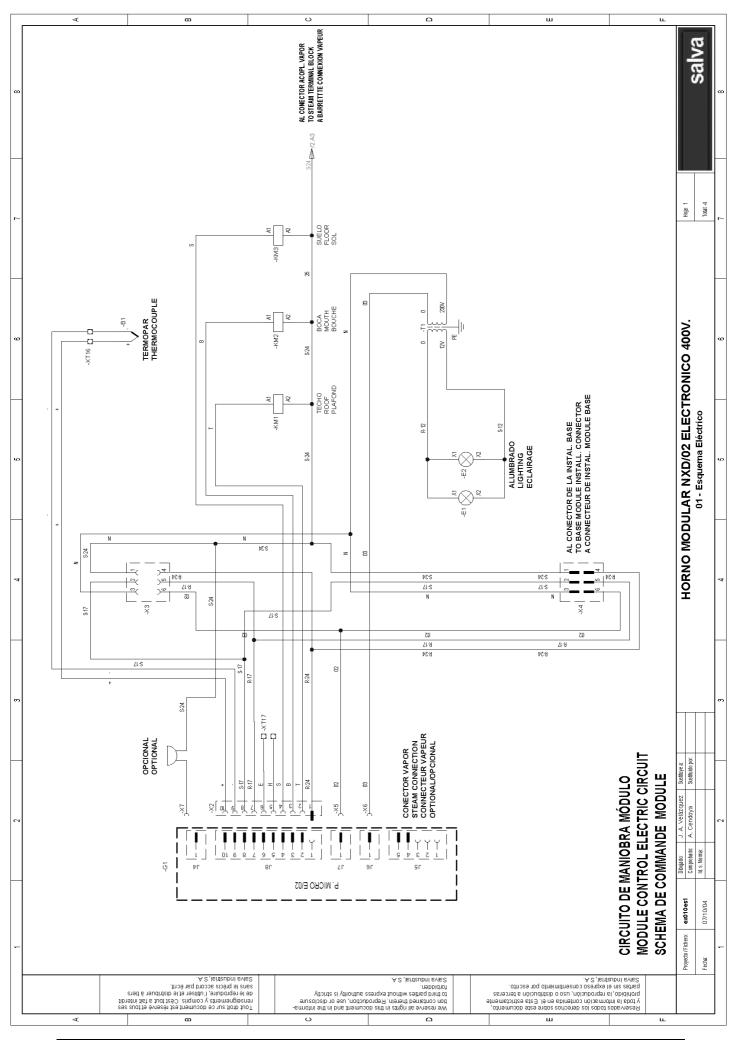


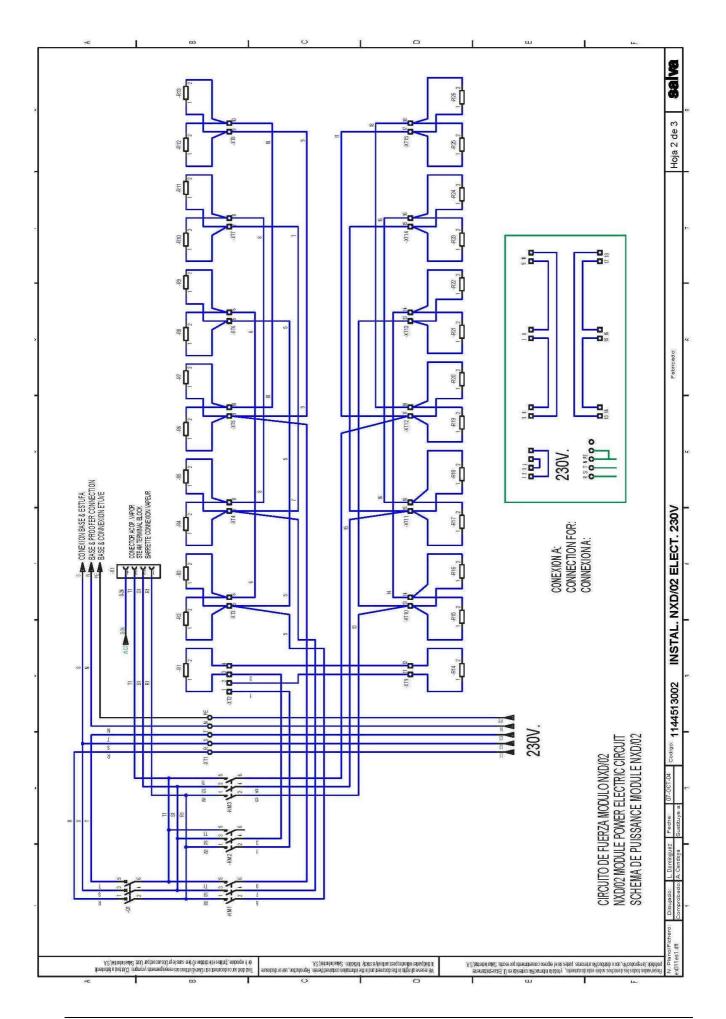
			DESCRIPCION DE	COMIT CITE IT I LO	
	Asi	gnacion a Nivel Superio	r:	Situación:	
par écrit.	Pos.	Nombre / Name / Nom	Denominacion	Denomination	Denomination
ecrit.	1	-B1	TERMOSTATO DE SEGURIDAD	SAFETY THERMOSTAT	THERMOSTAT DE SECURITE
ad par	2	-B2	TERMOPAR	TERMOCOUPLE	TERMOCOUPLE
chs acco	3	-KM1	CONTACTOR	CONTACTOR	CONTACTEUR
e le pré	4	-R1	CALENTADOR	HEATER	RESISTANCE
sans Saha	5	-X1	CONECTOR	CONNECTOR	CONNECTEUR
	6	-X2	CONECTOR	CONNECTOR	CONNECTEUR
	7	-X3	CONECTOR	CONNECTOR	CONNECTEUR
	8	-X4	CONECTOR	CONNECTOR	CONNECTEUR
200	9	-X5	CONECTOR	CONNECTOR	CONNECTEUR
an our	10	-X6	CONECTOR	CONNECTOR	CONNECTEUR
63	11	-X7	CONECTOR	CONNECTOR	CONNECTEUR
A. A.	12	-X8	CONECTOR	CONNECTOR	CONNECTEUR
ind parties with rout express additionly is surely doen. Industrial, S.A.	13	-Y1	ELECTROVALVULA	SOLENOID VALVE	ELECTROVANNE
idden.					
Salva					
.					
scrito.					
or escrit					
nento par esc					
cansentimi					
S.A.					
el expreso c strial, S.A.					
partes sin el e Salva Industr					
Sal					
\dashv	Proyecto/Fichero:	ex008es1	PRODUCTOR VAPOR H	DRNO MODULAR E/02 ELECTRONICO	Hoja DESD_1
-	Fecha:	Computation A. Cendoya Sistibility pir:		cripción de componentes	Total 3 Salva



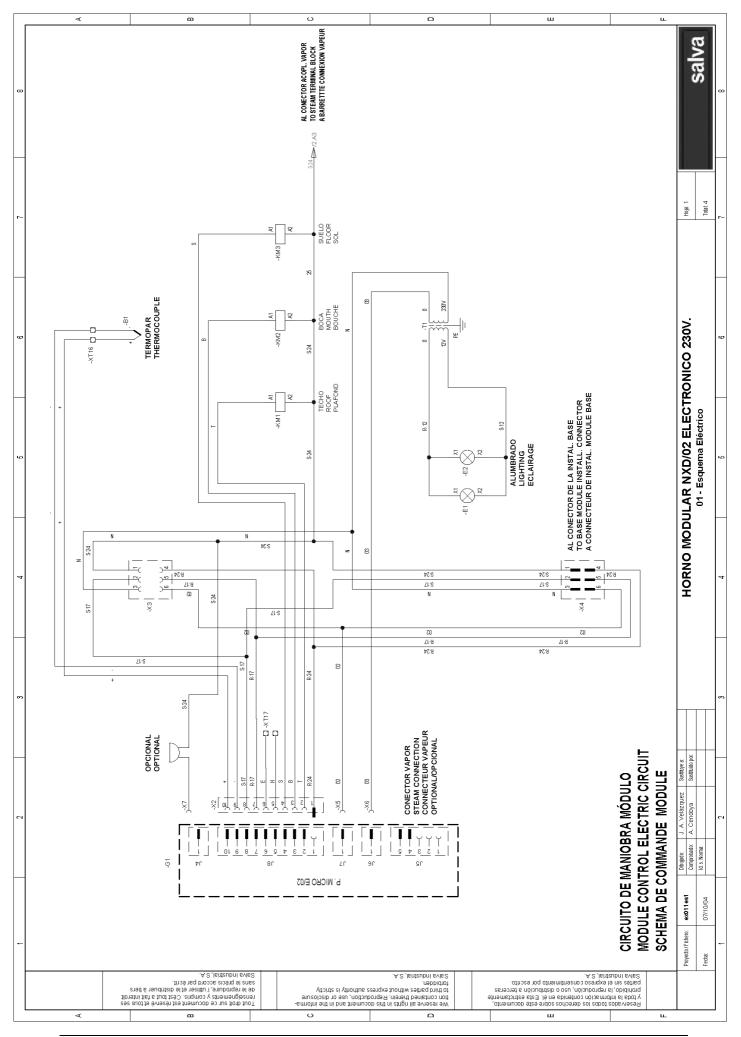


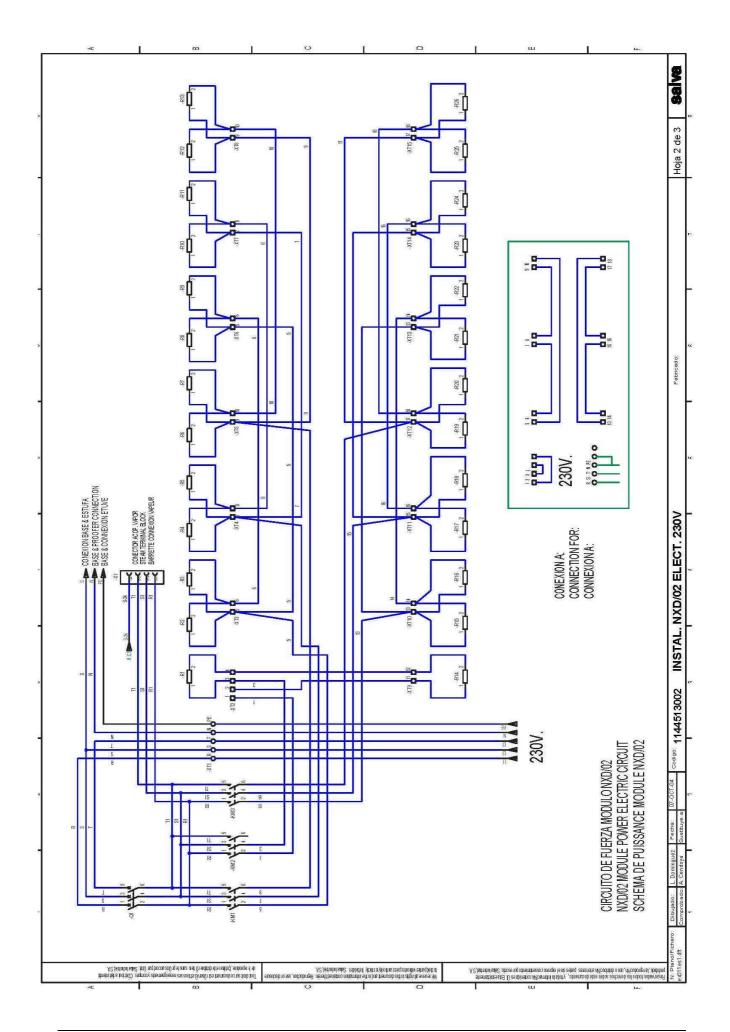
_	Asi	ignacion a Nivel Superior	1	Situación:	
r et le distribuer à tiers récrit.	Pos.	Nombre / Name / Nom	Denominacion	Denomination	Denomination
écrit.	1	-B1	TERMOPAR	TERMOCOUPLE	TERMOCOUPLE
utiliser et ord par é	2	-E1	CONTACTOR	CONTACTOR	CONTACTEUR
cis acc	3	-E1	ALUMBRADO	LIGHTING	ECLAIRAGE
s le pré	4	-E2	CONTACTOR	CONTACTOR	CONTACTEUR
sans Salv Salv	5	-E2	ALUMBRADO	LIGHTING	ECLAIRAGE
_	6	-G1	CONTROL MICRO ELECTRONICO	CONTROL MICRO ELECTRONICO	COMMANDEZ ELECTRONICO MICRO
	7	-KM1, -KM2, -KM3	CONTACTOR	CONTACTOR	CONTACTEUR
è	8	-Q1	MAGNETOTERMICO	CIRCUIT BREAKER	DISJONCTEUR
	9	-R1, -R10, -R11, -R12, -R13, -R14, -F	R15, CALENTADOR	HEATER	RESISTANCE
		-R16, -R17, -R18, -R19, -R2, -R20, -F	23,		
		-R4, -R5, -R6, -R7, -R8, -R9			
- ∢	10	-T1	TRANSFORMADOR	TRANSFORMER	TRANSFORMATEUR
strial, S	11	-X1	CONECTOR	CONNECTOR	CONNECTEUR
idden. va Indu	12	-X2	CONECTOR	CONNECTOR	CONNECTEUR
Salv	13	-X3	CONECTOR	CONNECTOR	CONNECTEUR
_	14	-X3	CONTACTOR	CONTACTOR	CONTACTEUR
	15	-X4	CONECTOR	CONNECTOR	CONNECTEUR
8	16	-X4	CONTACTOR	CONTACTOR	CONTACTEUR
r escri	17	-X5, -X6, -X7			
iento pi	18	-XT1			
, uso o	19	-XT1			
eso cor	20	-XT1			
el expr	21	-XT10, -XT11			
rtes sin	22	-XT2			
g.S	23	-XT3, -XT4, -XT5, -XT6, -XT7, -XT8, -	XT9		
	Proyecto/Fichero:	Dibijati: J. A. Veläzquez Sustinye a:		ED/02 ELECTRONICO 230/400V. cripción de componentes	Hoja: DESD_1



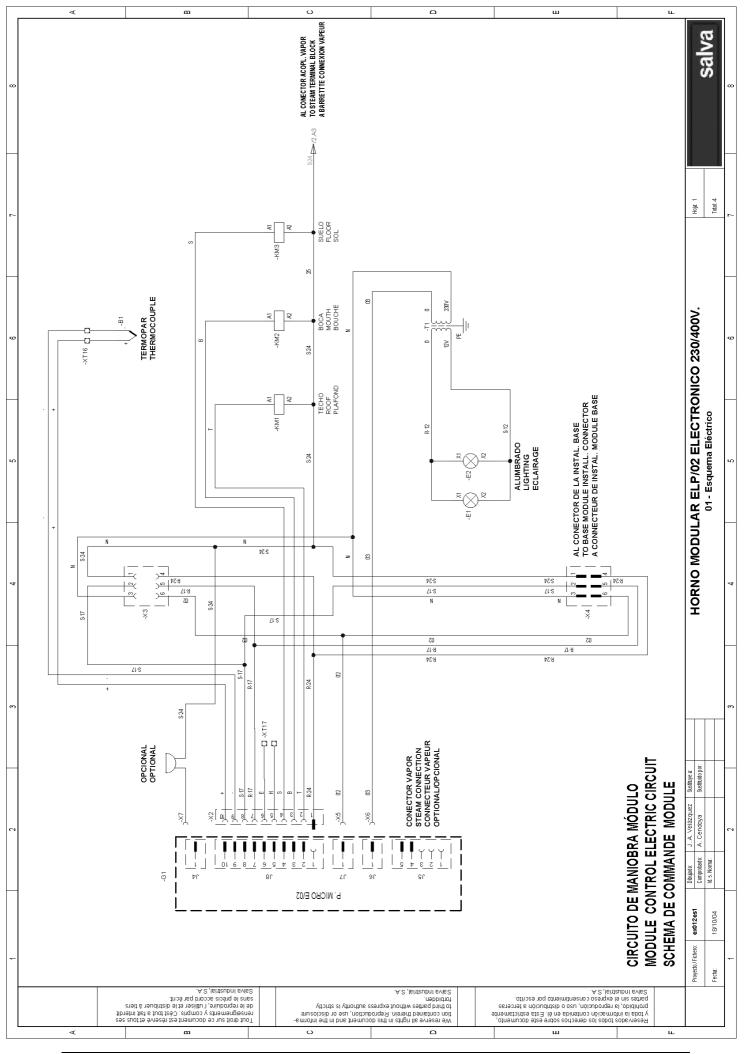


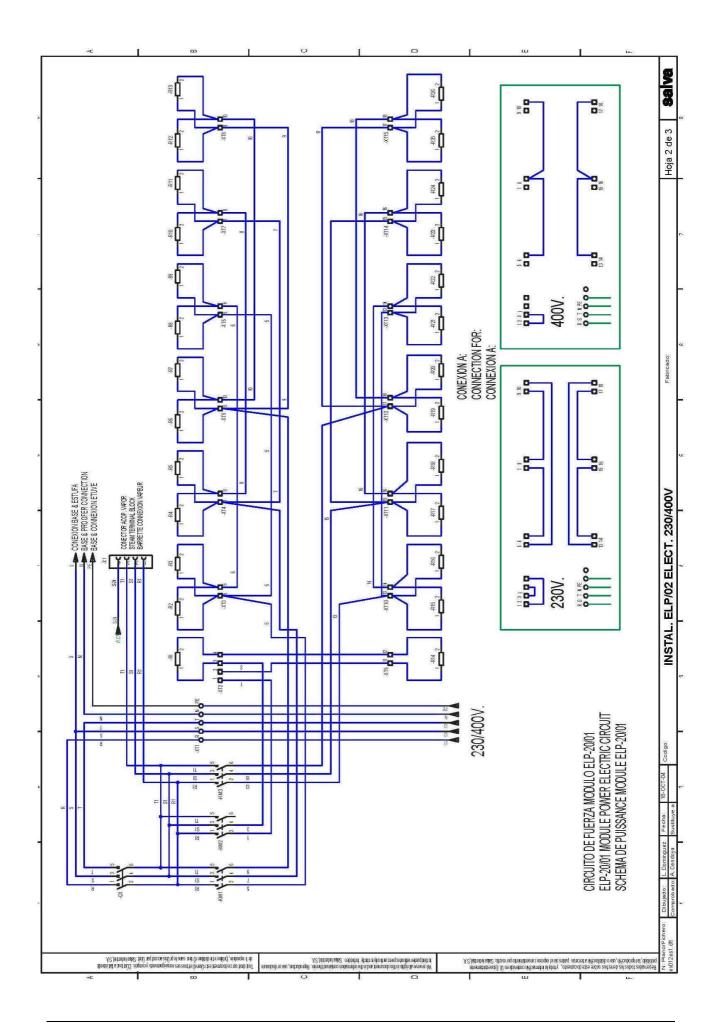
	Asi	gnacion a Nivel Superior:		Situación:	
et le distribuer à tiers écrit.	Pos.	Nombre / Name / Nom	Denominacion	Denomination	Denomination
et le distrib écrit.	1	-B1	TERMOPAR	TERMOCOUPLE	TERMOCOUPLE
ndiser ett rd par éci A.	2	-E1	CONTACTOR	CONTACTOR	CONTACTEUR
duire, l' chs acci strial, S	3	-E1	ALUMBRADO	LIGHTING	ECLAIRAGE
reproc le pré a Indu	4	-E2	CONTACTOR	CONTACTOR	CONTACTEUR
sans Salva	5	-E2	ALUMBRADO	LIGHTING	ECLAIRAGE
	6	-G1	CONTROL MICRO ELECTRONICO	CONTROL MICRO ELECTRONICO	COMMANDEZ ELECTRONICO MICRO
	7	-KM1, -KM2, -KM3	CONTACTOR	CONTACTOR	CONTACTEUR
strictly	8	-Q1	MAGNETOTERMICO	CIRCUIT BREAKER	DISJONCTEUR
s stuci	9	-R1, -R10, -R11, -R12, -R13, -R14, -R15,	CALENTADOR	HEATER	RESISTANCE
aumonty is str		-R16, -R17, -R18, -R19, -R2, -R20, -R21,			
ess an		-R22, -R23, -R24, -R25, -R26, -R3, -R4,			
s without express at		-R5, -R6, -R7, -R8, -R9			
strial, S.	10	-T1	TRANSFORMADOR	TRANSFORMER	TRANSFORMATEUR
ird partie dden. a Indust	11	-X1	CONECTOR	CONNECTOR	CONNECTEUR
forbic Salvy	12	-X2	CONECTOR	CONNECTOR	CONNECTEUR
	13	-X3	CONECTOR	CONNECTOR	CONNECTEUR
	14	-X3	CONTACTOR	CONTACTOR	CONTACTEUR
scrito.	15	-X4	CONECTOR	CONNECTOR	CONNECTEUR
on a te	16	-X4	CONTACTOR	CONTACTOR	CONTACTEUR
iento par esc	17	-X5, -X6, -X7			
on, uso o di	18	-XT1			
ucion,	19	-XT1			
expreso c inal, S.A.	20	-XT1			
s sin el	21	-XT10, -XT11, -XT12, -XT13, -XT14, -XT15,			
partes Salva II		-XT16, -XT17			
	22	-XT2			



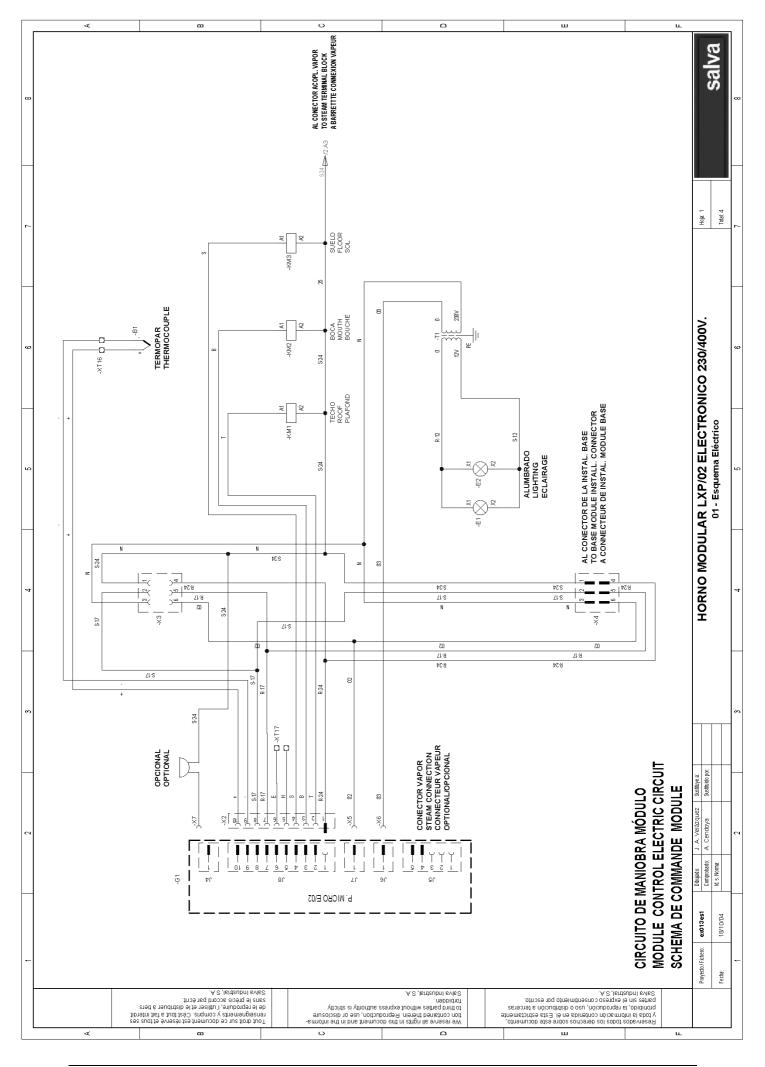


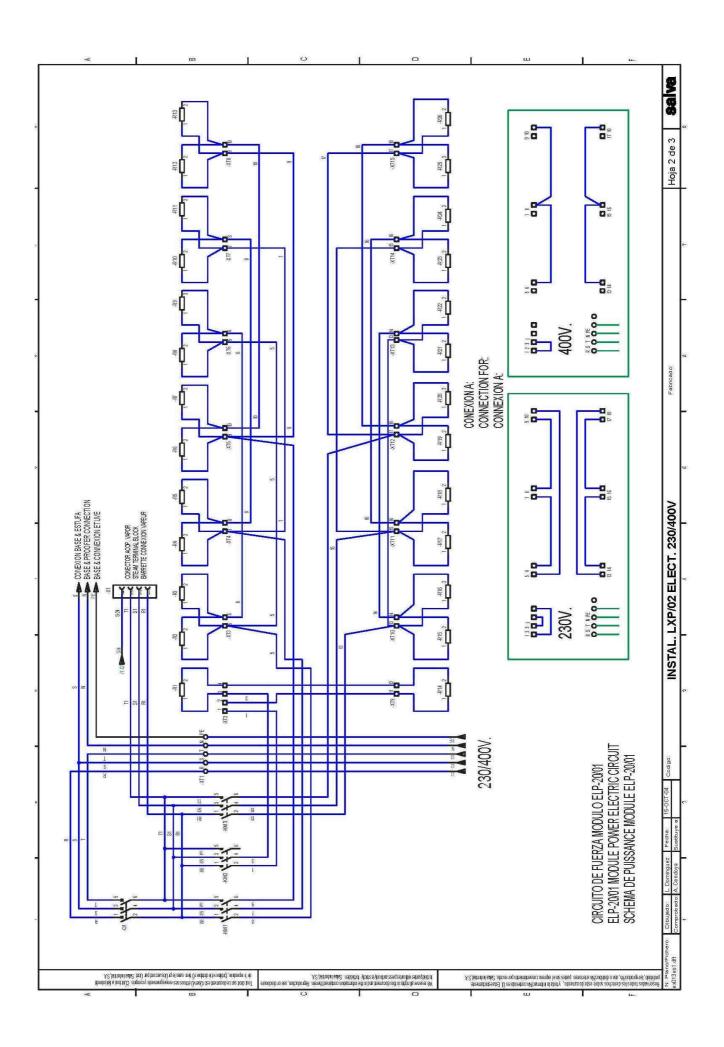
Asi	gnacion a Nivel Superior	:	Situación:	
Pos.	Nombre / Name / Nom	Denominacion	Denomination	Denomination
1	-B1	TERMOPAR	TERMOCOUPLE	TERMOCOUPLE
2	-E1	CONTACTOR	CONTACTOR	CONTACTEUR
3	-E1	ALUMBRADO	LIGHTING	ECLAIRAGE
4	-E2	CONTACTOR	CONTACTOR	CONTACTEUR
5	-E2	ALUMBRADO	LIGHTING	ECLAIRAGE
6	-G1	CONTROL MICRO ELECTRONICO	CONTROL MICRO ELECTRONICO	COMMANDEZ ELECTRONICO MICRO
7	-KM1	CONTACTOR	CONTACTOR	CONTACTEUR
8	-KM2	CONTACTOR	CONTACTOR	CONTACTEUR
9	-KM3	CONTACTOR	CONTACTOR	CONTACTEUR
10	-Q1	MAGNETOTERMICO	CIRCUIT BREAKER	DISJONCTEUR
11	-R1, -R10, -R11, -R12, -R13, -R14, -F	R15, CALENTADOR	HEATER	RESISTANCE
	-R16, -R17, -R18, -R19, -R2, -R20, -F	R21,		
	-R22, -R23, -R24, -R25, -R26, -R3, -F	₹4,		
	-R5, -R6, -R7, -R8, -R9			
12	-T1	TRANSFORMADOR	TRANSFORMER	TRANSFORMATEUR
13	-X1	CONECTOR	CONNECTOR	CONNECTEUR
14	-X2	CONECTOR	CONNECTOR	CONNECTEUR
15	-X3	CONECTOR	CONNECTOR	CONNECTEUR
16	-X3	CONTACTOR	CONTACTOR	CONTACTEUR
17	-X4	CONECTOR	CONNECTOR	CONNECTEUR
18	-X4	CONTACTOR	CONTACTOR	CONTACTEUR
19	-X5, -X6, -X7			
20	-XT1			
21	-XT1			
22	-XT1			
23	-XT10, -XT11, -XT12, -XT13, -XT14, -	-XT15.		





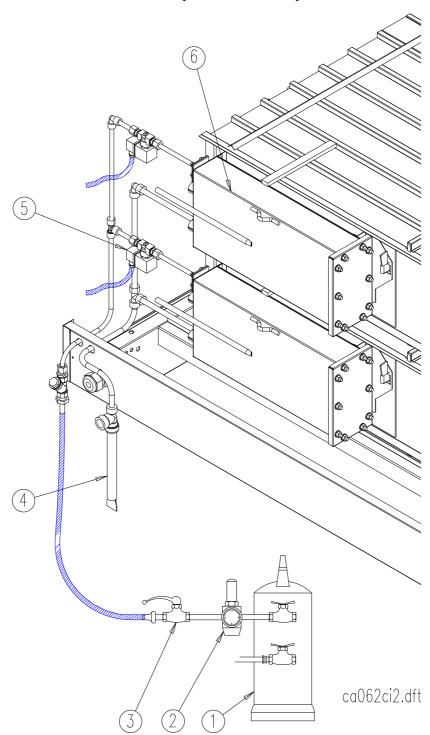
	Asi	gnacion a Nivel Superior:		Situación:	
sont.	Pos.	Nombre / Name / Nom	Denominacion	Denomination	Denomination
ecnt.	1	-B1	TERMOPAR	TERMOCOUPLE	TERMOCOUPLE
A.	2	-E1	CONTACTOR	CONTACTOR	CONTACTEUR
cis acc strial, S	3	-E1	ALUMBRADO	LIGHTING	ECLAIRAGE
s le pre	4	-E2	CONTACTOR	CONTACTOR	CONTACTEUR
Sah	5	-E2	ALUMBRADO	LIGHTING	ECLAIRAGE
_	6	-G1	CONTROL MICRO ELECTRONICO	CONTROL MICRO ELECTRONICO	COMMANDEZ ELECTRONICO MICRO
	7	-KM1	CONTACTOR	CONTACTOR	CONTACTEUR
	8	-KM2	CONTACTOR	CONTACTOR	CONTACTEUR
	9	-KM3	CONTACTOR	CONTACTOR	CONTACTEUR
	10	-Q1	MAGNETOTERMICO	CIRCUIT BREAKER	DISJONCTEUR
	11	-R1, -R10, -R11, -R12, -R13, -R14, -R15,	CALENTADOR	HEATER	RESISTANCE
ď		-R16, -R17, -R18, -R19, -R2, -R20, -R21,			
rial, S.		-R22, -R23, -R24, -R25, -R26, -R3, -R4,			
a Indus		-R5, -R6, -R7, -R8, -R9			
Salv	12	-T1	TRANSFORMADOR	TRANSFORMER	TRANSFORMATEUR
	13	-X1	CONECTOR	CONNECTOR	CONNECTEUR
	14	-X2	CONECTOR	CONNECTOR	CONNECTEUR
	15	-X3	CONECTOR	CONNECTOR	CONNECTEUR
escuto	16	-X3	CONTACTOR	CONTACTOR	CONTACTEUR
nto bot	17	-X4	CONECTOR	CONNECTOR	CONNECTEUR
aumie	18	-X4	CONTACTOR	CONTACTOR	CONTACTEUR
o cous	19	-X5, -X6, -X7			
expres	20	-XT1			
s sin ei Indust	21	-XT1			
Salva	22				
	23	-XT10, -XT11, -XT12, -XT13, -XT14, -XT15,			





As	ignacion a Nivel Superio	:	Situación:	
Pos.	Nombre / Name / Nom	Denominacion	Denomination	Denomination
1	-B1	TERMOPAR	TERMOCOUPLE	TERMOCOUPLE
2	-E1	CONTACTOR	CONTACTOR	CONTACTEUR
3	-E1	ALUMBRADO	LIGHTING	ECLAIRAGE
4	-E2	CONTACTOR	CONTACTOR	CONTACTEUR
5	-E2	ALUMBRADO	LIGHTING	ECLAIRAGE
6	-G1	CONTROL MICRO ELECTRONICO	CONTROL MICRO ELECTRONICO	COMMANDEZ ELECTRONICO MICRO
7	-KM1	CONTACTOR	CONTACTOR	CONTACTEUR
8	-KM2	CONTACTOR	CONTACTOR	CONTACTEUR
9	-KM3	CONTACTOR	CONTACTOR	CONTACTEUR
10	-Q1	MAGNETOTERMICO	CIRCUIT BREAKER	DISJONCTEUR
11	-R1, -R10, -R11, -R12, -R13, -R14, -	R15, CALENTADOR	HEATER	RESISTANCE
	-R16, -R17, -R18, -R19, -R2, -R20, -	₹21,		
	-R22, -R23, -R24, -R25, -R26, -R3, -l	₹4,		
	-R5, -R6, -R7, -R8, -R9			
12	-T1	TRANSFORMADOR	TRANSFORMER	TRANSFORMATEUR
13	-X1	CONECTOR	CONNECTOR	CONNECTEUR
14	-X2	CONECTOR	CONNECTOR	CONNECTEUR
15	-X3	CONECTOR	CONNECTOR	CONNECTEUR
16	-X3	CONTACTOR	CONTACTOR	CONTACTEUR
17	-X4	CONECTOR	CONNECTOR	CONNECTEUR
18	-X4	CONTACTOR	CONTACTOR	CONTACTEUR
19	-X5, -X6, -X7			
20	-XT1			
21	-XT1			
22	-XT1			
23	-XT10, -XT11, -XT12, -XT13, -XT14,	-XT15,		

10. STEAM GENERATOR (OPTIONAL)



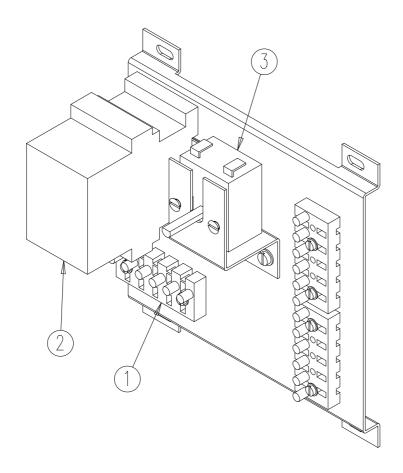
10.1 DESCRIPTION OF THE COMPONENTS.

- 1- Water Softening Device.
- 2- Pressure Regulator
- **3-** Valve 1/2".
- 4- Sifón E ST-85.
- 5- Solenoid Valve
- 6- Steam Generator.

11. LIST OF SPARES

11.1 STEAM GENERATOR CONTROL CIRCUIT

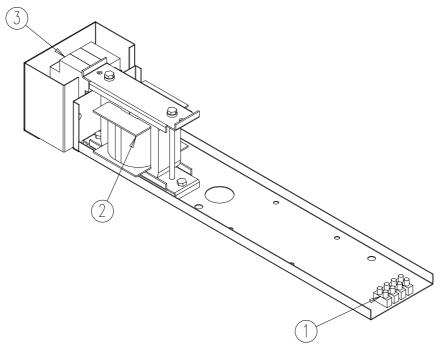
Fig	Pos	Code	Description	Only for steam models	Every models
ca034ci1.dft	1	0070316007	Plug CINTISA 160/6 BU	(3
ca034ci1.dft	2	0183418010	Contactor DIL 00M 10 24 V KM		1
ca034ci1.dft	3	1436015910	Thermostat K-5G+H / 00	,	1
-	-	1124001005	Thermocouple E/91	1	-



ca034ci1.dft

11.2 BASE CONTROL CIRCUIT

Fig	Pos	Code	Description	Every models
ad041ci1.dft	1	0072101004	Terminal Block RALOCAR 1000-4	1
ad041ci1.dft	2	1123101011	Transform. 180VA 230/0-17-0-24 V	1
ad041ci1.dft	3	0172000010	Circ. break I C 6k VA 10 A	2
ad041ci1.dft	3	0172000003	Circ. break I C 6k VA 3 A	1



ad041ci1.dft

11.3 MODULE CONTROL CIRCUIT

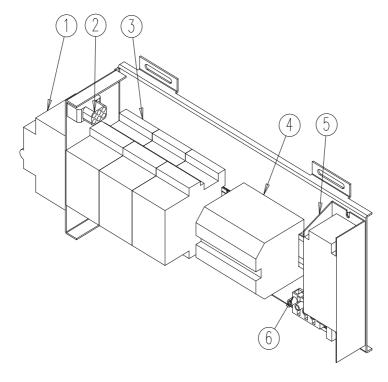
Fig	Pos	Code	Description	A Models	B Models	C Models	D Models
ca030ci1.dft	1	0172000332	Circ. break. III C 6 kA 32 A	1			
ca030ci1.dft	1	0172010040	Circ. break. III C 6 kA 40 A		1	1	
ca030ci1.dft	2	0070306704	Plug H AMP 6 V 1480704-0	1	1	1	
ca030ci1.dft	3	0183418010	Terminal block DIL 00M 10 24V KM	3	3	2	
ca030ci1.dft	4	0072120436	Terminal block WEIDMULLER SR20436A	1	1	1	
ca030ci1.dft	5	0072305020	Transform. TR 50/20-01 50 W	1	1	1	
ca030ci1.dft	6	0070316005	Plug CINTISA 160/4 BU	1	1	1	
-	-	-	-	-	-	-	

A Models: EM-20, EM-20 PIZZA, NXM-20, NXM-20 PIZZA, E-20, E-20 PIZZA

B Models: EMD-20, EMD-20 PIZZA, E-25, NXE-20, NXE-20 PIZZA

C Models: ED-20, ED-25

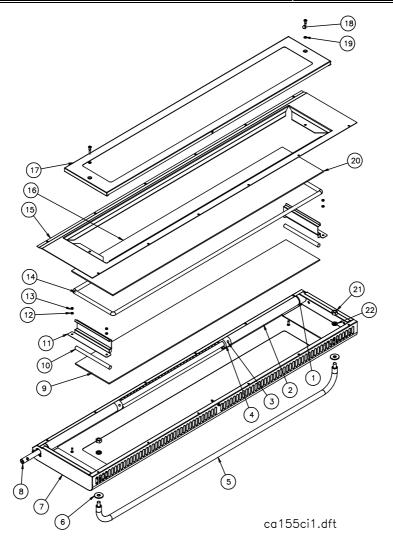
D Models: NXD-20, ELP-20, LXP-20



ca030ci1.dft

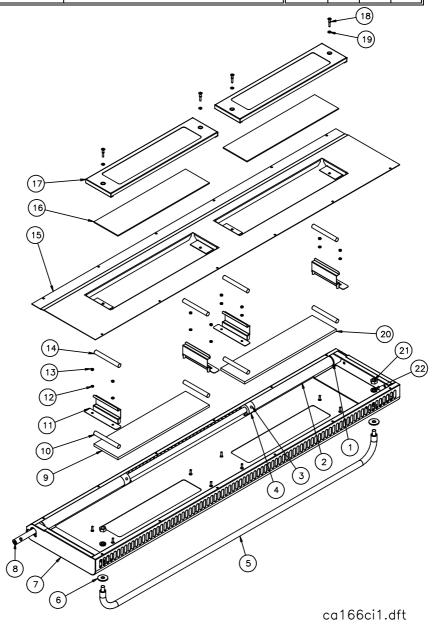
11.4 PASTRY DOOR

Fig	Pos	Code	Description	E-20, EMD-20, ED-20	E-25, ED-25	NXM	EM-20	NXE, NXD
ca155ci1.dft	10	0029600120	Glass fibre chord _ = 0.5 inches (12 mm)	2	2	2	2	
ca155ci1.dft	20	1124420030	Interior glass of the door E-20 / 00	1	1			1
ca155ci1.dft	20	1114420030	Interior glass of the door EM-20 / 00			1	1	
-	2	1124000007	Left door spring E /80	1	1	1	1	1
ca155ci1.dft	2	1124000006	Right door spring E/80	1	1	1	-	1
ca155ci1.dft	-	1124027000	Door axis protector pipe E/72	2	2	2	1	2
ca155ci1.dft	8	-	Door axis	1	1	1	1	1
ca155ci1.dft	5	-	Door handle	1	1	1	1	1
ca155ci1.dft	9	1124420029	Exterior glass of the door E-20/00	1	1			1
ca155ci1.dft	9	1114420029	Exterior glass of the door EM-20/00			1	1	



11.5 PIZZA DOOR

Fig	Pos	Code	Description	E-20 PIZZA - EMD-20 PIZZA	NXM PIZZA	EM-20 PIZZA	NXE PIZZA
ca166ci1.dft	10/14	0029600120	Glass fibre chord _ = 0.5 inches (12 mm)				
ca166ci1.dft	16	1124020006	Interior glass of the door E-20 / 00	2	1	1	2
-	2	1124000007	Left door spring E /80	1	1	1	1
ca166ci1.dft	2	1124000006	Right door spring E/80	1	1	-	1
ca166ci1.dft	-	1124027000	Door axis protector pipe E/72	2	2	1	2
ca166ci1.dft	8	-	Door axis	1	1	1	1
ca166ci1.dft	5	-	Door handle	1	1	1	1
ca166ci1.dft	14	1124020001	Exterior glass of the door E-20/00	2	1	1	2

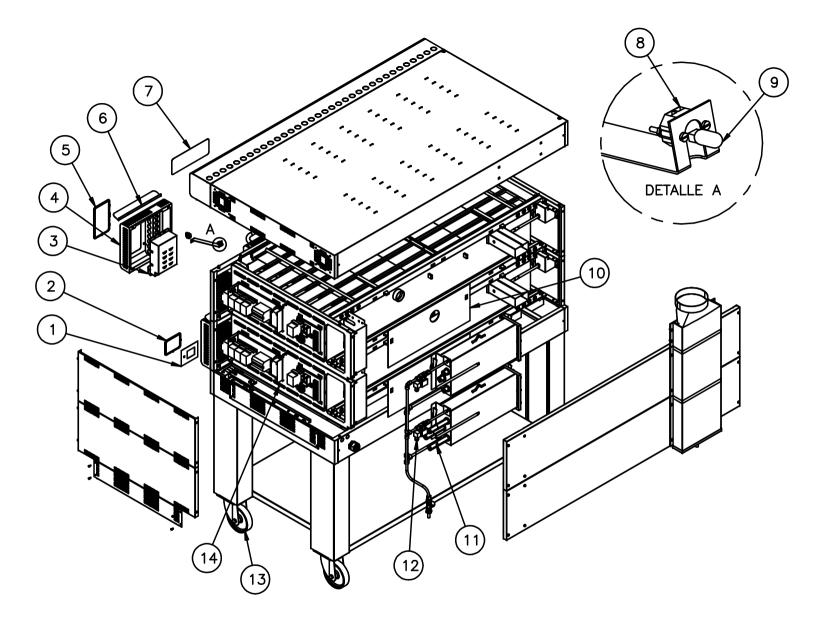


11.6 REST OF THE OVEN

Fig	Pos	Code	Description	Every models		
ca062ci1.dft	1	1124453010	Base adhesive E/01	1		
ca062ci1.dft	2	1124431500	Control Panel ST-99 / 02	1		
ca062ci1.dft	3	0071901220	Halogen Lamp holder LUXUS 914	2	(1)	
ca062ci1.dft	4	0071300750	Lamp 64428-300 GD	2	(1)	
ca062ci1.dft	5	1124453050	Top adhesive E/01	1		
ca062ci1.dft	6	1114401435	Insulating plate steam generator EM/00	1	(2)	
ca062ci1.dft	7	1114401205	Steam heating element 230 V EM/01	3	(2)	
ca062ci1.dft	8	0070601260	Solenoid valve ¼" DN3 24 V EPDM	1	(2)	
ca062ci1.dft	9	1100004000	Wheel 200	4		
ca062ci1.dft	10	1124002000	Heating element E-15/80	14		
-	-	0000700050	Filter ½ "	1	(2)	
-	Ü	1124023000	Thermocouple E/80	1		

^{(1): ,} NXM, ELP and LXP Models: 1 Unit.

^{(2):} Only for models with steam generator.



ca062ci1.dft