Morello Forni

ovens manufacturers in Genoa since 1969

RANGE “FGRi” ROTARY GAS OVEN WITH DUAL BURNER AND INDEPENDENT DIGITAL THERMOSTATIC CONTROLS BETWEEN THE CROWN AND THE COOKING TOP

INSTALLATION AND MAINTENANCE INSTRUCTIONS.

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Technical Assistance: contact your local dealer or the manufacturer.
The manufacturer reserves the right to change, at any time and without prior notice, the contents of this instruction manual.

FGRi

FGRiUSA_200412_001

GENERAL INDEX

Chapter. 1 GENERAL WARNINGS

1.1 TESTING AND WARRANTY

The unit has been tested in the manufacturer's plant in compliance with current laws and regulations and is supplied ready to use.
The warranty is valid 12 months from the date of delivery of the oven and covers the reparation of all defective parts, with the only exception of electric and electronic components. Visible defects and dissimilarities in the order, if existing, must be reported to the manufacturer within 5 days from the date of receipt of the oven in order to be accepted.
All other defects that become evident after the receipt of the oven must be reported within five days from the date of occurrence or, at any rate, within a maximum of 6 months as stated in the warranty.
The purchaser shall be entitled to claim for the reparation or the replacement of the defective parts only, as the warranty does not cover any whatsoever direct or indirect damage.
However, the reparation or replacement of defective parts must be requested within the maximum limit stated in the warranty, unless otherwise provided for in applicable laws and regulations.
Defective materials shall be repaired or replaced in the manufacturer's plant. Therefore, the purchaser shall return said materials carriage free to the manufacturer, who shall in turn return them carriage forward to the customer.

1.2 INTRODUCTION

This manual is supplied in order to provide all the instructions for a correct use and maintenance of the oven, and the maximum safety of users.
The description of the following professional qualifications and related duties are provided for further clarification.
Installer: qualified technician in charge of the installation and commissioning of the oven in accordance with the instructions of this manual.
User: any person who is familiar with the content of the manual and who uses the oven for the intended use and in accordance with the instructions provided. Users are always expected to carefully read and consult the manual. Users are recommended to specifically and frequently read and refer to paragraph **1.5 Safety Precautions.**
Technician responsible for ordinary maintenance: qualified technician trained to perform ordinary maintenance operations in accordance with the instructions of this manual.
Technician responsible for extraordinary maintenance: qualified technician trained to perform extraordinary maintenance on the unit.

The symbol , which is present in some parts of this manual, highlights an important warning that should be followed for safety purposes.

The manufacturer disclaims all responsibility for damages originating from the improper and incorrect use of the oven or from the failure to comply with the instructions of this manual.
This manual should be stored in an accessible location that is known to all users (installer and technicians responsible for ordinary and extraordinary maintenance).
This manual cannot be reproduced and/or transmitted, in whole or in part, with any whatsoever means or media.

1.3 CLIENT'S RESPONSIBILITIES

The customer shall be responsible for the following:
- Correct and safe installation of the oven received
- Power supply
- Compliance of the gas supply with the testing requirements
- Connection to the flue
- Consumables for cleaning
- Ordinary maintenance
- manutenzione ordinaria

1.4 OVEN DESCRIPTION

This gas oven has an external body in painted sheet that houses a heavy composite frame in refractory material and is heated by two digitally controlled gas burners (FIG.1).
The front arc and the shelf are in refractory granite and natural stone. The front control panel in stainless steel houses the instrumentation panel and the digital controls.

1.5 GENERAL SAFETY STANDARDS

Before turning the oven on, it is always advisable to read the instructions of this Operation and Maintenance Manual, which is to be regarded as an integral part of the product and should always be stored in a safe place. If this manual becomes unreadable or damaged, it is possible to request a duplicate copy from the manufacturer by specifying the model and date of supply of the oven.
GENERAL SAFETY PRINCIPLES
- Always complete the recommended installation procedure before turning the oven on.
- Avoid touching the oven with wet hands or feet.
- Avoid inserting screwdrivers or other objects in the protection grilles of the oven or between moving parts.
- Do not disconnect the oven from the power supply by pulling the power cord out of the outlet.
- Do not allow children or youths below 18 or unskilled people to use the oven.
- Always disconnect the oven from the power supply before cleaning or servicing it.
- Always turn the oven off without attempting any reparations in the event of permanent and/or temporary failure. The oven should always be repaired by qualified technicians.

FIG.1

1.6 CONTACTING THE TECHNICAL ASSISTANCE

All technical problems or servicing requests should be addressed to the supplier of the oven.

1.7 ORDERING SPARE PARTS

All spare parts can be ordered from the supplier of the oven who has a list of spare parts.

Chapter. 2 Instructions for installers

2.1 WEIGHT AND DIMENSIONS

The section below shows a layout of the unit with the installation heights and dimensions in centimeters (FIG.2).

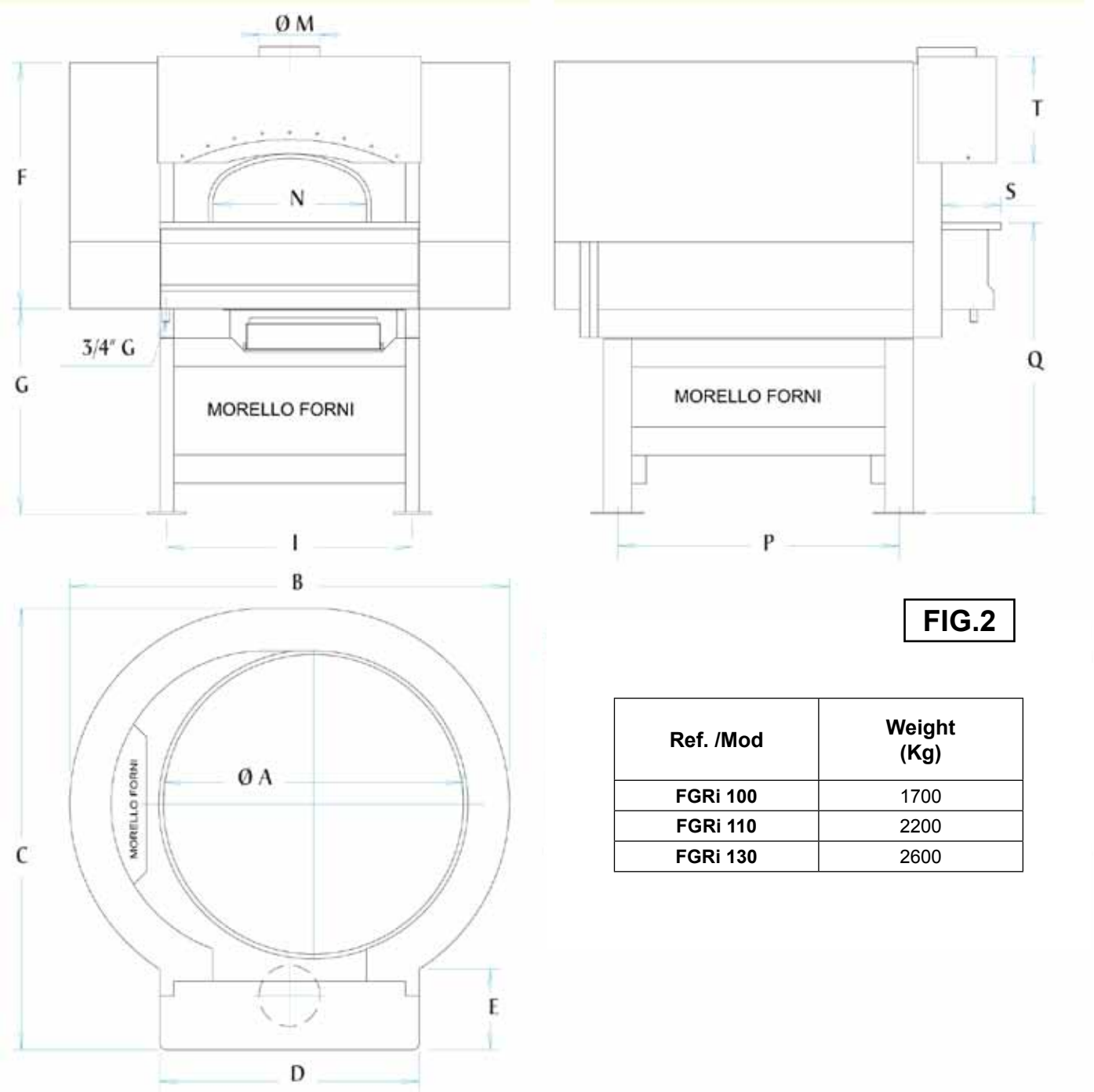


FIG.2

Ref. /Mod	Weight (Kg)
FGRi 100	1700
FGRi 110	2200
FGRi 130	2600

Ref. / Mod	Ø A	Ø B	C	D	E	F	G	I	Ø M	N	P	Q	S	T
FGRi 100	106	165	165	100	37	107	87	94	25	55	98	118	25	50
FGRi 110	126	185	187	110	37	107	87	104	30	65	118	118	25	50
FGRi 130	146	205	210	120	37	107	87	114	30	75	138	118	25	50

ALL DIMENSIONS ARE IN CENTIMETERS

2.2 RECEIVING OF THE OVEN

Upon receipt of an oven manufactured by “MORELLO FORNI”, it is necessary to carefully read this manual before performing any handling or installation operation.
The oven has been designed with the utmost attention and must be handled very carefully by the carrier. All handling operations must be performed with efficient and appropriate unloading and installation equipment.
The oven is supplied with a disassembled support base due to the extremely high center of gravity that could cause hazards and damages during transportation.
Extract the oven from its box by removing the supports and the rods of the elements that support the wooden crate anchored to the oven.
The oven should be handled only with equipment suitable to support its weight.

FOR THE SAFETY OF OPERATORS, IT IS ADVISABLE TO ALLOW THIS OPERATION TO BE PERFORMED BY QUALIFIED TECHNICIANS ONLY.
ATTENTION! THE CENTER OF GRAVITY OF THE OVEN IS SITUATED HIGH ABOVE THE GROUND.

The metal frame of the oven is designed to be handled with a crane. The two metal bars that form the upper frame can be used to fix the lifting slings with a hoist or crane of adequate carrying capacity.
The metal frame of the crane is designed to be handled with many types of equipment.
The special and reinforced HANDLING AND LIFTING POINT enables the oven to be handled and lifted with a suitable transpallet trolley or with a hoist equipped with lifting forks, as shown in FIG.3.

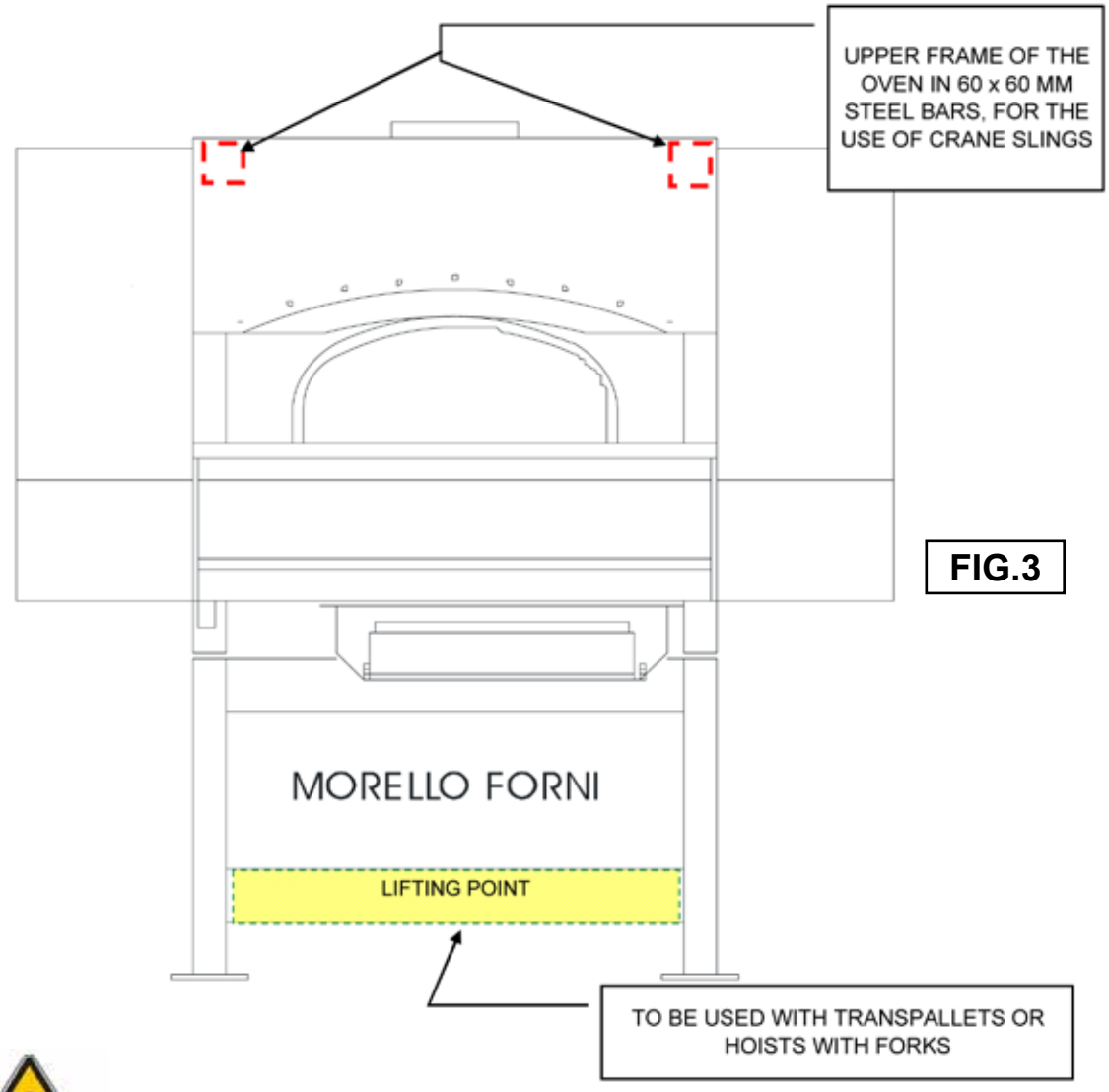


FIG.3

THE OVEN SHOULD NEVER BE ROTATED ON ITS SIDE!

2.3 GENERAL RECOMMENDATIONS

The oven can only be used to cook food. The sections below describe the main components of the oven. The area below the oven must always be accessible and free from all possible obstructions.THE MANUFACTURER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES ORIGINATING FROM ACCIDENTS, FAULTS OR FROM THE FAILURE TO FOLLOW THE INSTRUCTIONS OF THIS MANUAL.Always perform all electric connections in accordance with safety law requirements and install a cut-off switch to protect the oven from electric discharges and users from potential hazards.Always make sure that the voltage and power supply are suited to the power absorbed by the oven.

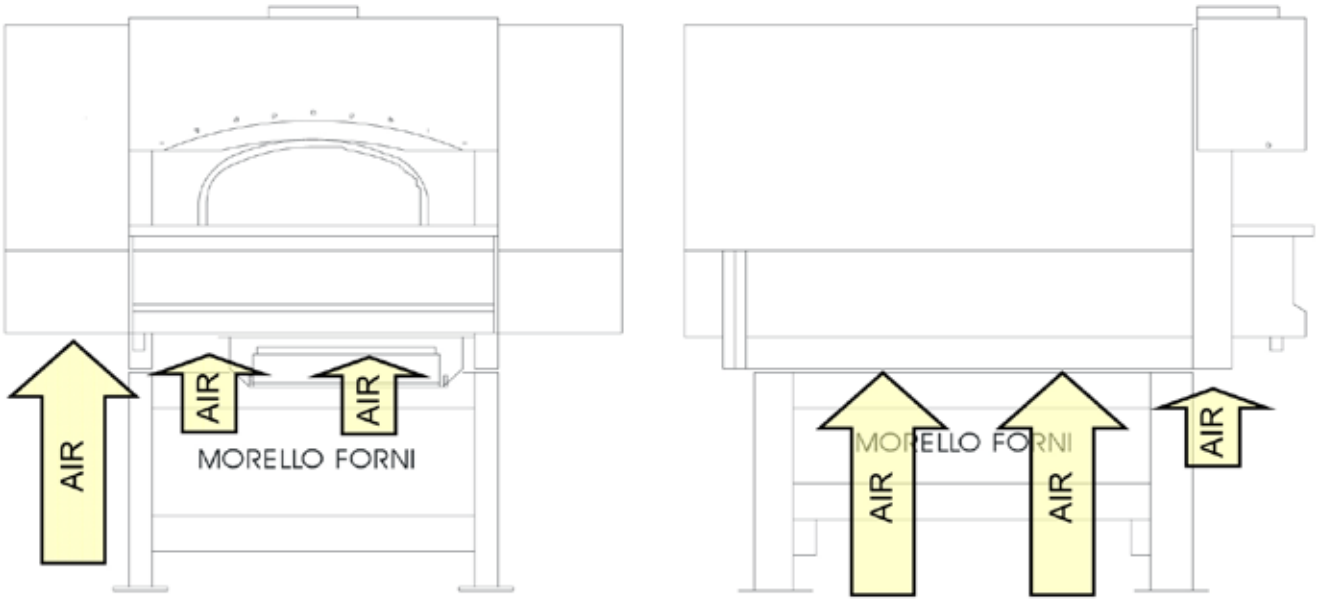


FIG.4

2.4 INSTALLING THE OVEN

This oven, which is a combustion model, must be installed in a ventilated area in accordance with the regulations of competent authorities.
It is useful to remember that the gas burners can be serviced only from the base of the oven, by removing the grilles that protect the openings next to the location of the internal burner.As maintenance technicians need to regularly use these openings to access the gas burners and service them, it is important to make sure that they are always accessible and free from obstructions that could prevent the correct circulation of the air required for a safe operation of the oven.

- The area below the control panel must be free in order to prevent the obstruction of the air flow to the oven bedplate. Therefore, this area should house the oven gas supply lines only.

- The area next to the lower section of the crown burner must be free to allow the natural ventilation of the burner and easy access for regular maintenance (FIG. 4).

ATTENTION! THE OBSTRUCTION, THOUGH PARTIAL, OF THIS AREA MAY AFFECT THE OPERATION OF BURNERS AND THEIR SAFETY.

2.5 RECOMMENDATIONS FOR EXTERNAL COATING

The oven can be coated with several materials, except for the front control panel and other areas that must be left free, as shown in the layout below (FIG.5).Always follow the recommended instructions and do not hesitate to contact the manufacturer for further information.

FIG.5

Chapter. 3 Installation

3.1 ELECTRIC CONNECTIONS AND POWER ABSORPTION

The oven must be connected to the power mains by a qualified and authorized technician.
The power absorbed by “FGRi” range ovens is 8 A with single phase connections.
The power supply may be double phase with a voltage of 220 V +/-10% 60 Hz.
To enhance safety, always observe the following instructions:

- Always use the power cord supplied with the oven for its connection to the power supply.
- Verify that the power supply has the same rating of the oven.
- If the outlet and plug are incompatible, replace the outlet with a suitable and approved model.
- Never use adapters or multiple plugs.

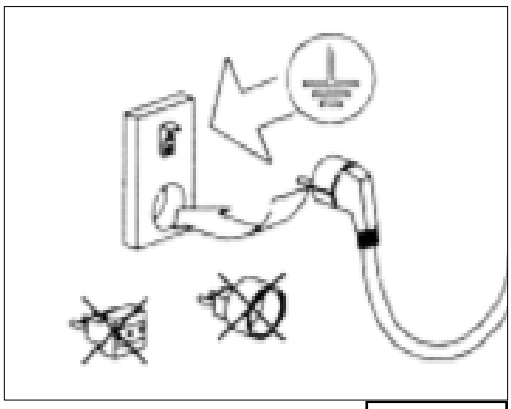


FIG.6

IMPORTANT: *always connect the oven to an electric system with a suitable grounding system and cutoff switch compliant with current safety law requirements.*

3.2 WIRING DIAGRAM

The wiring diagram of the oven is shown on the last page of this manual.

THE WIRING DIAGRAM IS DESIGNED TO BE USED BY QUALIFIED TECHNICIANS DURING MAINTENANCE OPERATIONS.

3.3 LIST OF COMPONENTS

1. ON/OFF Four-pole switch	MF.01.001	19. Bedplate Relay R4	MF.01.010
2. Emergency stop	MF.01.002	20. Bedplate Relay R5	MF.01.010.24
3. Transformer 24V dc	MF.01.048	21. Bedplate Relay R6	MF.01.010.24
4. Line filter	MF.02.001	22. Ignition control Dome burner	MF.02.007
5. Inteltouch MF-R	MF.01.025	23. Ignition control Bedplate burner	MF.02.007
6. Network Filter	MF.02.002	24. Bedplate Safety Gas valve	MF.02.004
7. Inverter	MF.01.072	25. Dome Safety Gas valve	MF.02.003
8. Engine for gear reductor	MF.01.076.01	26. ModuPlus	MF.02.003
9. Independent cooling fan	MF.01.076.02	27. Dome burner Flame modulator	MF.02.005
10. PLC	MF.01.071	28. Inverter Relay R7	MF.01.010
11. Dome temperature probe	MF.01.006	29. Fuse 1 A	MF.01.050
12. Bedplate temperature probe	MF.01.006	30. Fuse 6 A	MF.01.053
13. Light	MF.01.008	31. Fuse 2,5 A	MF.01.051
14. Light Relay R8	MF.01.010.24	32. Fuse 2,5 A	MF.01.051
15. Light Relay R9	MF.01.010.24		
16. Dome Relay R1	MF.01.010.24		
17. Dome Relay R2	MF.01.010		
18. Dome Relay R3	MF.01.010.24		

3.4 DISCHARGE OF COMBUSTION PRODUCTS

All ovens are equipped with a flue for the discharge combustion products, which can be installed in one of the configurations foreseen by current installation standards.

..... APPLIANCE (SEE NAMEPLATE)

1) Natural evacuation: the oven is connected to a stack with natural draught, enhanced by a wind screen fitting which discharges the combustion products externally (see Figure 1).

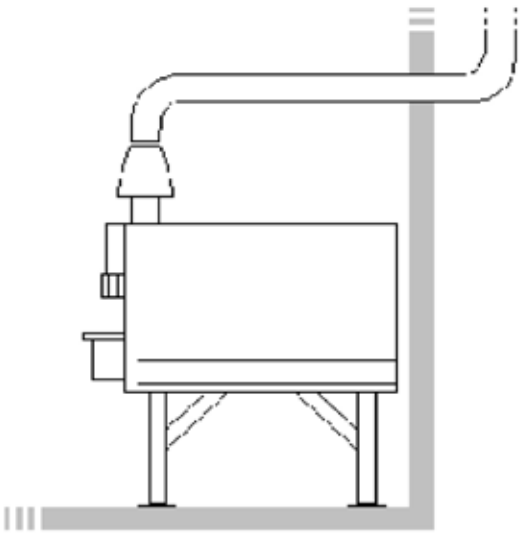


FIGURA N. 1

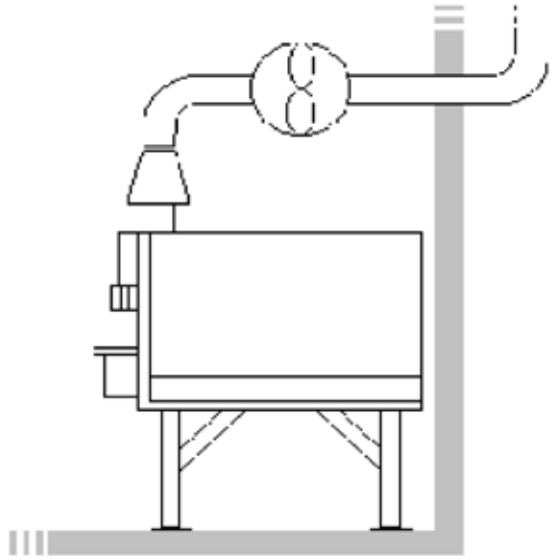


FIGURA N.2

2) Direct forced evacuation:
the oven is connected to a stack with draught forced by a wind screen fitting (see Figure 2).
The gas supply must be directly connected to the forced evacuation system and designed so that it disconnects if the flow rate of the gas falls below the values specified in paragraph 4.3 of standard .....
The gas supply should be resumed manually only.

3) Forced evacuation below the hood:
if the evacuation system is installed below the hood, the end part of the exhaust duct of the unit must be placed at a minimum distance of 1.8 meters from the resting surface of the oven (floor level), while the outlet of the duct for the discharge of combustion products must be situated within the base perimeter of the hood (see Figure 3).
The gas supply must be directly connected to the forced evacuation system and designed to disconnect if the flow rate of the gas falls below the limits specified in installation requirements. The gas supply should be resumed manually only.

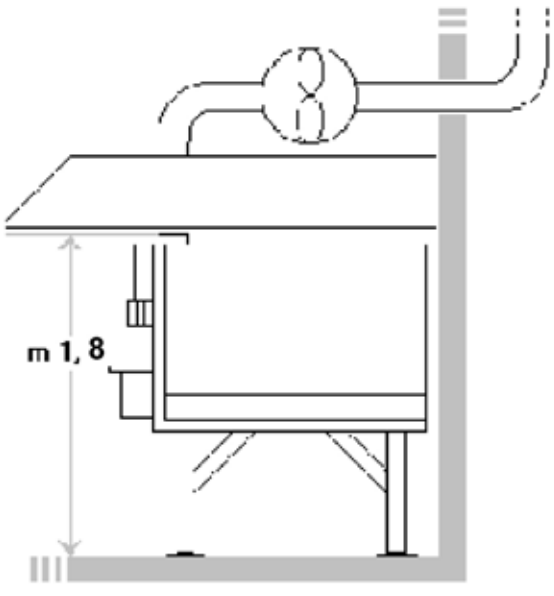


FIGURA N. 3

3.5 TECHNICAL DATA

BURNER ON THE BEDPLATE				
Ref. / Mod.	DIAMETER OF BURNER NOZZLE: 1/100 mm		POSITION OF MAIN AIR NOZZLE ON MAIN BURNER: "X" mm	
	LIQUID GASG30/G31/ 30/37 mbar	NATURAL GAS G20 (20 mbar) G25 (25 mbar)	LIQUID GASG30/G31/ 30/37 mbar	NATURAL GAS G20 (20 mbar) G25 (25 mbar)
FGRi 100	1 X 200	1 X 280	6	8
FGRi 110	1 x 250	1 x 300	6	8
FGRi 130	2 X 160	2 X 260	2 X 10	2 X 10

BURNER ON THE DOME				
Ref. / Mod.	DIAMETER OF BURNER NOZZLE: 1/100 mm		POSITION OF MAIN AIR NOZZLE ON MAIN BURNER: "X" mm	
	LIQUID GASG30/G31/ 30/37 mbar	NATURAL GAS G20 (20 mbar) G25 (25 mbar)	LIQUID GASG30/G31/ 30/37 mbar	NATURAL GAS G20 (20 mbar) G25 (25 mbar)
FGRi 100	3 x 150	3 x 250	3 x 8	3 x 10
FGRi 110	3 x 160	3 x 260	3 x 8	3 x 10
FGRi 130	4 x 150	4 x 250	4 x 10	4 x 10

Ref./ Mod.			FGRi 110	FGRi 130	FGRi 150
Nominal Heat	Mass of testing of fuel per hour	Kg/h	2,846	3,588	4,273
	Average temperature exhaust gas	°C	151,35	153,75	157,62
	exhaust flux	m^3/h	314,60	396,824	472,39
	Average satisfied CO at 13%O_2	%	0,188	0,2377	0,282
	Absorbed heat	Kw	12,78	16,12	19,19
	Nominal Heat delivered	Kw	3,91	4,94	5,88
	Efficiency at nominal heat delivered	%	24,30	30,66	36,49

3.6 PREPARATION OF THE OVEN

The oven is a combustion model and must therefore be installed in adequately ventilated areas or following the requirements specified in the current standards of competent bodies.

3.7 OPERATING CHARACTERISTICS

The ovens manufactured by Morello Forni are preset to work with the type of gas specified in the order. To be able to use them with gases that are not specified on the table supplied with the oven, it is first necessary to adapt them.

3.8 ADAPTING THE OVEN FOR ANOTHER TYPE OF GAS

This operation, which implies replacing the nozzles of the burner, must be performed by a qualified and trained technician who will also have to annotate the new operating characteristics of the oven after the applied changes. To request this kind of operation, always refer to a qualified servicing technician of the manufacturer or an authorized dealer.

AVOID TURNING THE OVEN ON IF THE OPERATING CHARACTERISTICS DIFFER FROM THOSE STATED IN THE TEST TABLE SUPPLIED WITH IT!

3.9 CONNECTING THE GAS SUPPLY

he gas supply can be connected to the 3/4" G ISO R7 fitting of the oven permanently or provisionally by installing an approved cutoff switch. The section of the pipe must be suited to its length and to the flow rate of the equipment that it is designed to supply. Its connection must be compliant with the requirements specified in standards ..... For GPL gas, it also necessary to insert an adequately calibrated pressure regulator in the gas supply pipe. Flexible pipes, when used, should be in stainless steel and of approved type. The gas manifold has a fitting for the collection of sediments with a ¾" screwed cap, which must always be closed and sealed, and opened only to clean and service the pipes (FIG.7). After completing the connections, it is necessary to perform a sealing test with a leak finder spray.

FIG.7

3.10 TECHNICAL FEATURES

The nameplate is placed on the instrument panel or on the right side of the oven.

- Oven class .....
- Supply pressure:

Methane/Propane (G30/G31).....30/37 mbar
Natural gas *H* (G20)..... 20 mbar
Natural gas *L* (G25)..... 25 mbar

TABLE NO. 01 : COMBUSTION AIR

Ref./ Mod	MAXIMUM OVEN POWER	GPL CONSUMPTION	METHANE GAS CONSUMPTION	COMBUSTION AIR
FGRi 110	28 kW	2,1 Kg/h	2,9 Mc/h	56 Mc/h
FGRi 130	36 kW	2,8 Kg/h	3,8 Mc/h	72 Mc/h
FGRi 150	43 kW	3,3 Kg/h	5 Mc/h	86 Mc/h

3.11 CHECKING THE SUPPLY PRESSURE

The supply pressure can be measured with a liquid pressure gauge (i.e. a U pressure gauge with a minimum threshold of 0.1 mbar).

- Remove the sealing screw from the supply pressure intake (after removing the instrument panel), situated at the inlet of the cock and thermostat.
- Connect the U pressure gauge.
- Start the unit following the instructions.
- Measure the supply pressure.
- Remove the U pressure gauge.
- Tighten the sealing screw.

3.12 CHECKING GAS LEAKS

After completing the installation, it is necessary to check that there are no gas leaks. To perform this operation it is sufficient to apply soapy water on couplings or joints with a brush and check that no foam bubbles appear.

Alternatively, it is also possible to use the counter and verify that there is no gas flow within an interval of approximately 10 minutes.

ATTENTION: NEVER USE FLAMES TO LOCALIZE GAS LEAKS!

CHAPTER 4 . CONTROL SYSTEMS OF THE OVEN

4.1 SAFETY DEVICES

Ovens manufactured by Morelli Forni have two independent gas safety systems called CVI (“Combined Valve and Ignition”). Each system controls the temperature of the crown and of the bedplate of the oven through the operation of the corresponding burner.

The CVI monitors and optimizes all the functions required to start and safely operate the burner by directly controlling the status of the flame and adjusting the flow of gas supplied to the burner to a safe limit.

The CVI system comprises a gas valve directly driven and connected to the gas ignition system.The oven can be safely used with the following types of gases: GPL, methane and processed gases.FIG.8 shows the safety valve on the bedplate configured for the operation of the oven.

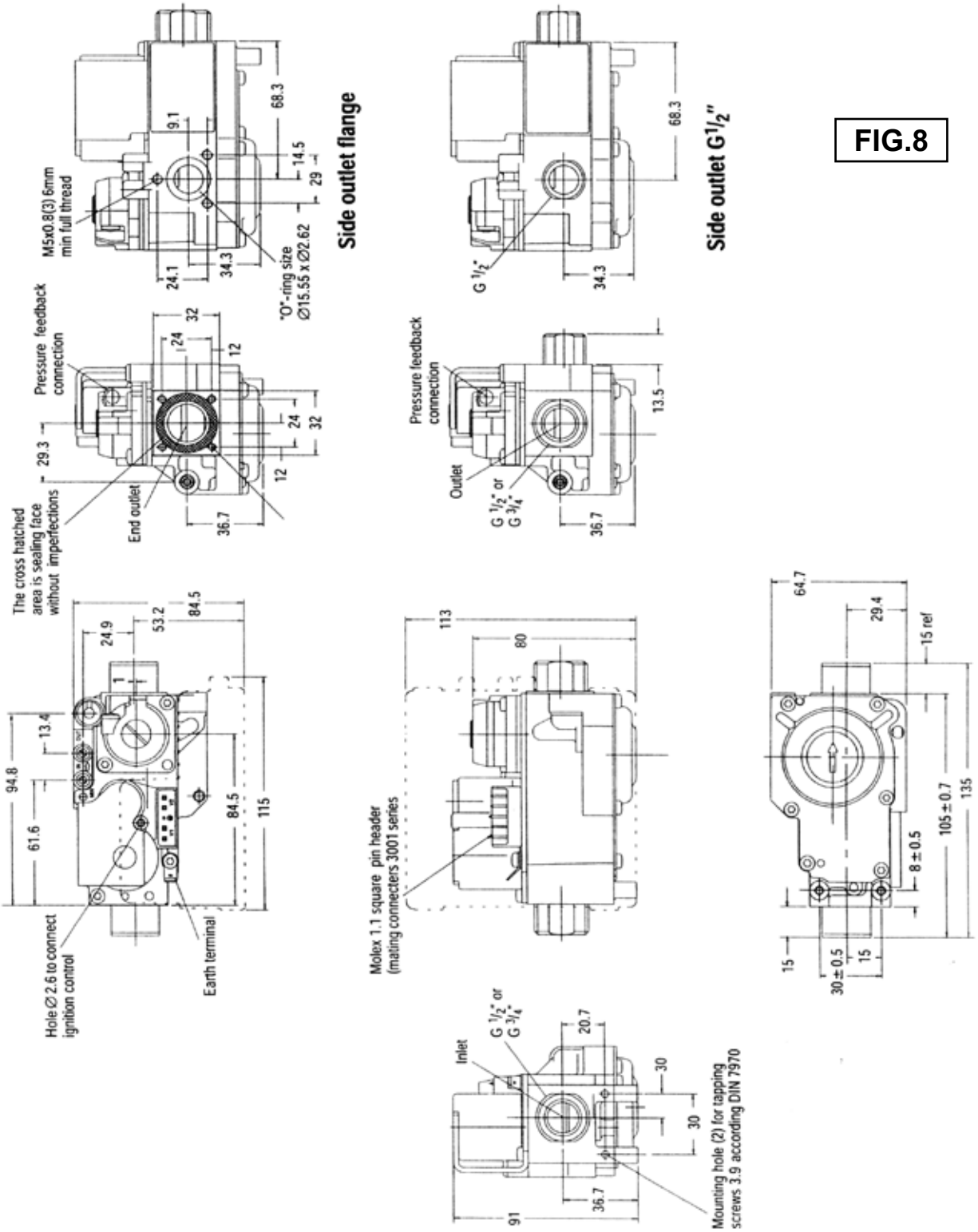


FIG.8

The CVI system that controls the upper burner has an additional electric pressure regulator, known as MODULPLUS, which adjusts the supply pressure of the crown burner on an average value between the minimum and maximum supply pressure of the incoming gas. This regulator is controlled by the electric signal generated by an independent instrument known as FLAME MODULATOR.
Minimum and maximum pressure values can be mechanically adjusted to optimize the operation of the burner. FIG.9 shows a layout of the safety valve configured for the crown burner.

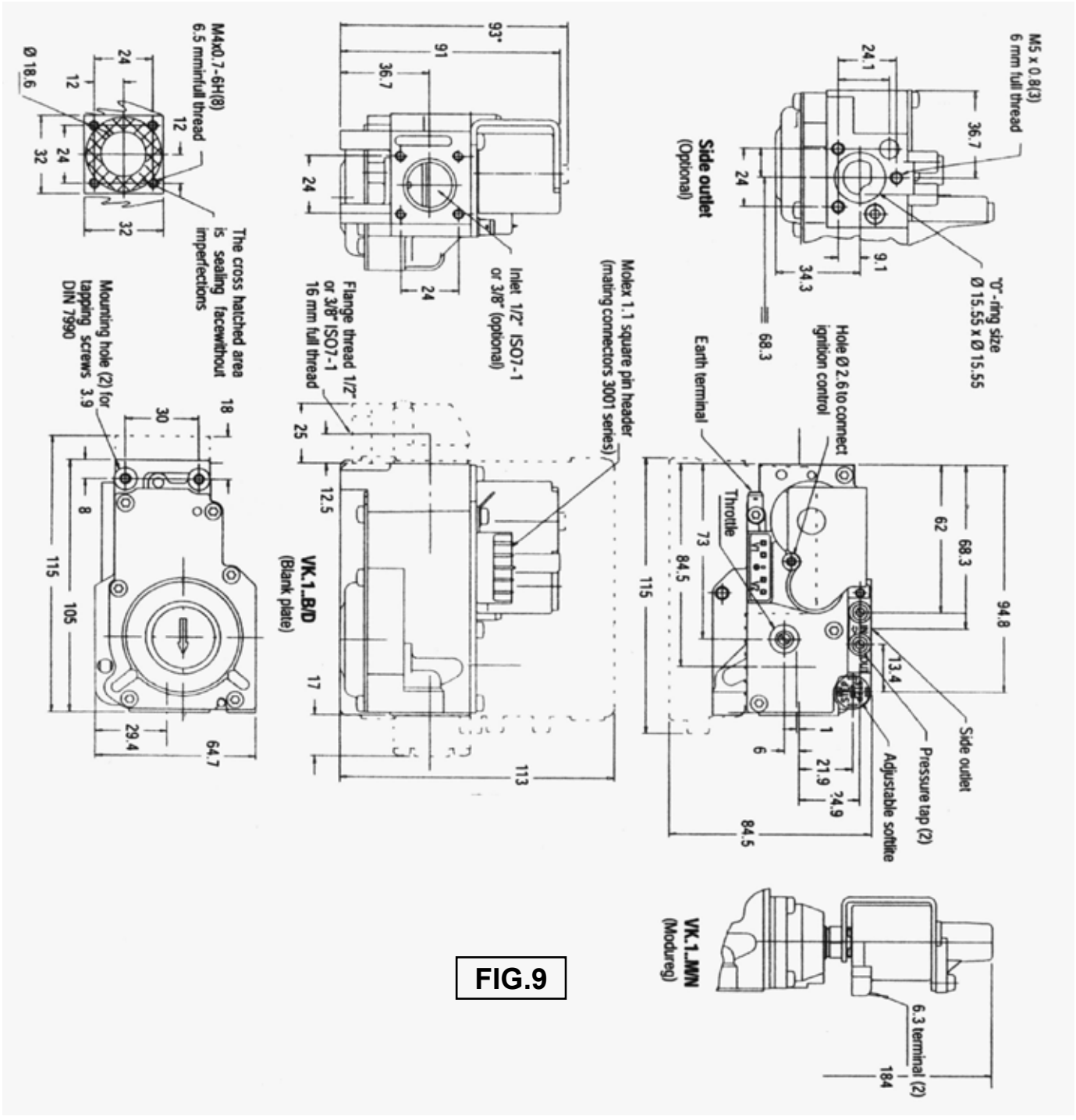


FIG.9

4.2 OPERATING INSTRUCTIONS

- If the oven is turned on with the flame modulator set to the minimum position, the regulator is maintained on the preset position suitable to ensure the start of the oven.
- When the oven is restarted manually or by the thermostat, the flame modular maintains the position preset by users with the corresponding control. The burner turns on with a low flame, reaching the value preset by users within a few seconds thanks to the soft ignition system (SOFTLITE) fitted on the CVI system of the crown burner.

4.3 MODUPLUS: ADJUSTMENT, OPERATING TEST AND MAINTENANCE

- All operations must be performed by qualified technicians only.
- Allow the pressure to stabilize before making adjustments to the unit.
- It is advisable to operate Modulplus a few times in order to verify that it is in good working order after every adjustment operation.
- Remove the protection cap before all adjustments.
- Verify that the protection cap has been reassembled after all adjustments.

ATTENTION

DO NOT DISASSEMBLE ANY PART OF MODULPLUS.
DISASSEMBLY OPERATIONS MAY AFFECT THE OPERATION OF MODULPLUS.

For a safe operation of the burner, it is necessary to first adjust the maximum pressure and consequently adjust the minimum one.Each adjustment of the maximum pressure affects the adjustment of the minimum pressure that has already been set.

ADJUSTING MAXIMUM PRESSURE:

- Verify that the burner is operating and that the coil of Modulplus is powered with the maximum current.
- Remove protection cap “A”.
- If the maximum pressure needs to be adjusted, use an 8 mm wrench to adjust the regulation valve, turning it clockwise to increase the value or counterclockwise to reduce it, until the desired maximum pressure is set.
- Disconnect the Modulplus from the power supply.
- Make sure that the minimum pressure is suitable and repeat the adjustment if necessary.
- Reassemble protection cap “A” at the end of the adjustment.

ADJUSTING MINIMUM PRESSURE:

- Verify that the burner is operating and that the coil of Modulplus is powered with the minimum current.
- Remove protection cap “A”.
- If the minimum pressure needs to be adjusted, use an 8 mm wrench to maintain the position of the maximum pressure regulation screw, then use a 5 mm wrench to adjust the minimum pressure regulation screw, turning it clockwise to increase the value or counterclockwise to reduce it, until the desired minimum pressure value has been set.
- Check that the maximum pressure is correctly set.
- Make sure that the minimum pressure is suitable and repeat the adjustment if necessary.
- Reassemble protection cap “A” at the end of the adjustment.

FINAL CHECK

After every adjustment, it is advisable to operate the pressure regulator several times and perform a few complete enabling and disabling cycles in order to verify that the regulation system of the burner and its components are in perfect working order.

MAINTENANCE

Modulplus requires an annual inspection and check of the minimum and maximum pressures of the crown burner, and their adjustment if necessary.

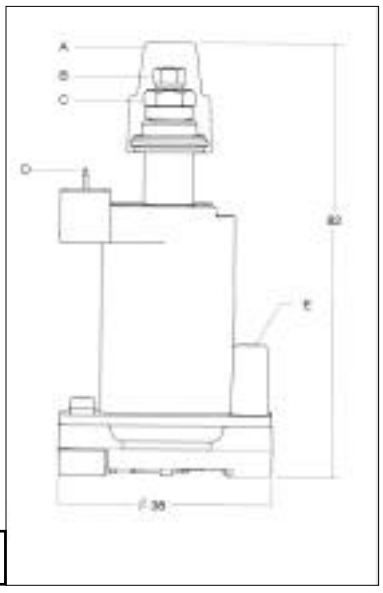


FIG.10

CHAPTER 5: INSTRUCTIONS FOR USERS

5.1 OVEN OPERATING INSTRUCTIONS

The oven can be started and used only after a qualified technician has completed its installation and performed a regular inspection and test.

The users of the oven should become familiar with the instructions of this manual in order to be able to use the oven safely and without assistance. The oven supplied has been hand manufactured with the utmost care and should be used very carefully for a long life and full safety.

5.2 SAFETY AND CONTROL SYSTEM FOR THE OVEN GAS

The burners fitted inside the oven guarantee the utmost safety thanks to the functions of the CVI (Combined Valve Ignition) system.
This system ensures safe starts, a continuous monitoring of the flame and the adjustment of the gas supplied to the controlled burner.
If the burner of the crown or bedplate has been enabled by means of the related switch and the thermostat controlling it acknowledges the selected temperature, the CVI system starts a programmed cycle of 10 seconds, during which the electrode of the flame sensor tries to detect the flame of the burner, which is caused by the sparking of the ignition electrode.

The detection and ignition electrodes are fitted on the burner by means of a metal rod and should never be touched or hit, as this could cause the oven to stop with the consequent need of calling a qualified technician.

The gas flow to the burner is interrupted every time the CVI gas control system fails to detect a flame during the 10 second sparking phase.
If the oven fails to ignite, the corresponding luminous red button turns on. The burner can be restarted with this button only after an interval of 10 seconds.
During this interval of time it is not possible to restart the burner, as the 10 seconds are necessary to recirculate the air in the combustion chamber and thus ensure a safe new start.
By the two control panel's display temperature of the dome and bedplate can bee check by the temperature control system which runs on burners drive directly.
Yellow leds giving feedback heach about burner status.

The bedplate burner, placed below the cooking top, is used to heat the cooking top of the oven and maintain it at the required temperature.
The crown burner is generally installed on the internal left side of the oven. Its flame intensity can be adjusted by means of the flame regulator, while its operation is controlled by the related thermostat and by the CVI safety valve.

The oven can be started both with the crown and bedplate burners, only if the manual door of the oven has been completely removed from the oven door.

5.3 THERMAL AND OVEN PRE-HEATING SYSTEM

This oven is a direct combustion heavy-duty model.
Therefore, the main source of heat used for cooking is located inside the cooking chamber and has a very heavy mass because it is entirely made in refractory stone.
The refractory mass of the oven is also heated by a second burner placed below the cooking top of the oven.
The upper burner reaches the internal temperature of the cooking chamber maintaining it constant, while irradiating the food to be cooked inside the oven. This enables to cook the food in a special, affordable and very fast way.
The second burner heats the cooking top from below and maintains its temperature constant even when used intensively.
When heating the oven for the first time, it is necessary to gradually pre-heat it for a short period of time.
On new ovens, it is first necessary to remove the high amount of humidity absorbed by the refractory and insulating material during manufacture.
It is basically necessary to gradually pre-heat the oven, in order to raise its heat from ambient temperature to 300°-350° (crown temperature) in at least 48 hours.

In this phase, it is forbidden to cook any food because the oven first needs to neutralize all the manufacturing residuals it contains.

As the oven releases a high amount of steam in this phase, it is necessary to ventilate the room in order to limit condensation to the minimum. This precaution must be observed for the first 3-4 days, as this a rule not an exception.

It is also important to protect electric systems and plants that are sensitive to condensate and to the released materials that could cause damages to property and injuries to people.

5.4 SWITCHING THE BURNERS ON AND OFF

1) SWITCHING THE DOME BURNER ON
- Remove the manual door from the oven door (if present; see FIG 11).
- Open the manual cock that enables to supply gas to the oven.
- Turn the main ON/OFF switch to ON.
- Turn the ON/OFF switch of the dome burner to ON; if the temperature set requires it, the CVI system starts the burner until it detects and stabilizes the dome burnerflame.
- After the first seconds of stabilization, the flame can be adjusted by means of the flame modulator depending on the needs of users.
- By setting the maximum dome temperature, users can optimize temperature and customize the performances of the oven also by means of the flame modulator.

2) SWITCHING THE DOME BURNER OFF
- To switch the dome burner off, it is sufficient to push the ON/OFF button.

3) SWITCHING THE BEDPLATE BURNER ON
- Remove the manual door from the oven door (if present; see FIG 11).
- Open the manual cock that enables to supply gas to the oven (if closed).
- Turn the main ON/OFF switch to ON (if positioned on OFF).
- Turn the ON/OFF switch of the bedplate burner to ON; if the temperature set requires it, the CVI system starts the burner until it detects and stabilizes the bedplate burner flame.

- The bedplate burner cannot be modulated, therefore it is always necessary to set the minimum temperature of the bedplate to the value of the bedplate display.

3) SWITCHING THE BEDPLATE BURNER OFF
- To switch the bedplate burner off, it is sufficient to push the ON/OFF button.

FIG.11

ATTENTION: NEVER SWITCH THE BURNERS ON WHEN THE MANUAL DOOR IS IN FRONT OF THE OVEN MOUTH!
NEVER POSITION THE MANUAL DOOR IN FRONT OF THE OVEN MOUTH WHEN THE OVEN IS ON!
THE MANUAL DOOR CAN BE USED ONLY WHEN THE OVEN IS OFF TO MAINTAIN THE INTERNAL RESIDUAL TEMPERATURE BETWEEN TWO COOKING CYCLES.

5.5 LIGHTING THE WOOD FURNACE

1) Ensure the oven door is open while lighting the wood furnace

2) Place some wood in the furnace area and light them using wood or paper that is untreated or coated in any way.

WARNING!!! DO NOT USE FLAMMABLE SUBSTANCES—EITHER LIQUID OR SOLID—INCLUDING, BUT NOT LIMITED TO: ALCOHOL, PETROL, COAL, ETC.

3) Once the oven is lit, ensure the fire is correctly supplied with fuel, remembering not exceed the maximum burn rate of 5 to 10 Kg. / hr. (The recommended average consumption rate is 3 to 5 Kg. / hr.)

4) The oven thermostat reads the internal oven temperature, which is displayed on the upper digital panel. When the programmed dome temperature is reached, the burner will cut off, restarting only when the temperature falls below the programmed setting.

5) When cooking in the presence of a flame, ensure the fire is fuelled with small pieces of wood, maintaining the temperature at the desired level.

6) For cooking without the presence of a flame, the oven temperature should be raised to exceed the desired temperature by 50ºC, at which point, the auxiliary plate burner should be shut off. When fire has gone out, place the food in the oven and close the oven door.

7) When you have finished using the oven, put out the fire and the auxiliary plate burner, then close the oven door in order to retain the residual heat for the next work cycle.

5.6 CLEANING THE OVEN

1) Before cleaning the oven, clean the cooking top with a brush.
   If food residuals are present on the cooking top, try removing them as much as possible with an oven server and leave the rest to dry so that it can be removed a few minutes later. The cooking residues, and other eventual dirt found in the cooking area, must be pushed into the opening located between the cooking level and the cupola, causing it to drop into the central debris collection drawer.
3) Clean the ash collection drawer daily and, during intensive use, leave it slightly open to help maintain a strong flame.
4) Never use water or other fluids to clean the inside of the oven.
5) Avoid striking the cooking shelf while cleaning it as this can cause damage.
6) The oven neutralizes the odors of previously cooked food every time it reaches the cooking temperature.
7) Use damp cloths without detergents to clean the external surfaces of the oven.

5.10 NOTE ON THE TYPES OF WOOD

Depending on the possibility of finding some types of wood and on their prices there will be different working conditions. The table below sums up the main characteristics of these types of wood. This is just an indicative guide.

TIPE	HEAT	FIRING	SPARKS	AROMA
ACACIA	☆☆☆☆☆	☆☆☆	VERY LITTLE	NEGLIGIBLE
MAPLE	☆☆☆	☆☆	LITTLE	NEGLIGIBLE
BURCH	☆☆	☆☆☆☆☆	MODERATE	NEGLIGIBLE
CAROB	☆☆☆☆☆	☆☆☆	VERY LITTLE	NEGLIGIBLE
CHERRY	☆☆	☆☆☆	LITTLE	EXCELLENT
BEECH	☆☆☆☆	☆☆☆	LITTLE	GOOD
ASH	☆☆☆☆	☆☆	LITTLE	NEGLIGIBLE
APPLE	☆☆☆	☆☆☆	LITTLE	EXCELLENT
WALNUT	☆☆☆☆	☆☆	LITTLE	EXCELLENT
ELM	☆☆☆☆	☆	VERY LITTLE	FAIR.
ALDER	☆	☆☆☆☆	MODERATE	NEGLIGIBLE
OAK	☆☆☆☆☆	☆	LITTLE	FAIR.

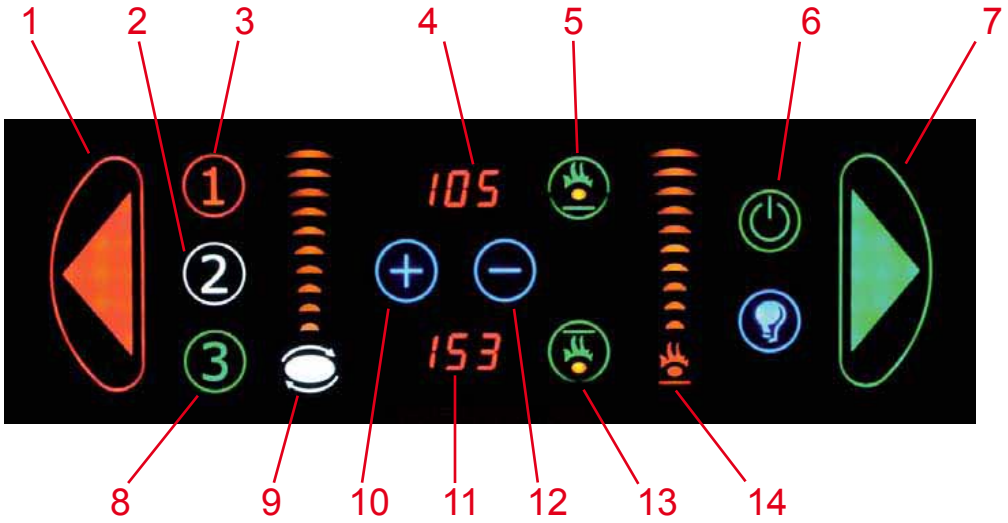
Chapter 6: PROGRAMMING AND CONTROL SYSTEM “INTELTOUCH-MF10”.

Control panel “Inteltouch MF10” is an advanced digital board control that enables the User to launch and monitor oven main function.
“Inteltouch MF10” system, by acoustic advice, light and colours intensity changes, numerical marks, can display oven status and programme.
User can activate or change functions by easy and direct One-touch, following instruction listed below.

6.1 OVEN START UP

Once plugged, control panel shows stand-by mode.

One touch on icon (6) “On/Off” activates dome and bedplate temperature releaver and relating status for thermostatic intervention system.
Start button shows own running status changing Color from red to green and V/V.



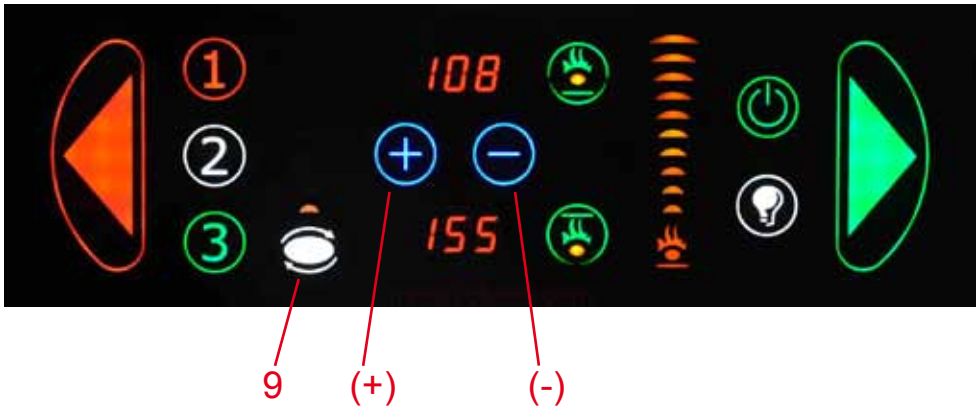
D.O.S. COMMANDS AND ICONS::

1) Red arrow button
2) Button no. 2
3) Button no. 1
4) Dome temperature monitor
5) Dome burner button
6) On/Off button
7) Green arrow button
8) Button no. 3
9) Bedplate rotation speed tuning button
10) Value increasing button
11) Bedplate temperature monitor
12) Value decreasing button
13) Bedplate burner button
14) Dome burner flame modulator button
15) Light on/off button

TURNING BEDPLATE COMMANDS.

ROTATION DIRECTION SELECT
Both buttons (1) Red arrow button and (7) Green Arrow button act on turning bedplate rotation Direction.
One touch on button starts rotation to relating direction refl ected by arrow.
One touch on opposite arrow changes ongoing rotation direction.
Activated button shows proper status by own Lightening icon.
One touch on active button stops rotation.

ROTATION SPEED
Turning bedplate rotation can be started By a fi rst (9) button touch, then pressing
(+)/(-) speed can be increased &/or decreased As much as one likes.
Button (9) lightening shows active changes status on said value.
Active ongoing speed is marked by one
Scale made by a series of queued lights
Which lightening following action releaved On buttons (+)/(-) from minimum to maximum.
After 5 seconds without any action releaved Selected speed becomes rekorded.



6.2 BURNERS COMMANDS DESCRIPTION

It is possible to activate independently the Oven two gas burners by specifi c icons switch on/off for dome and bedplate burners.
Pressing relating icon (5) “Dome burner button”
Or (13)”Bedplate burner button”, can be enable Relating burner switch on.
Actual switch on is managed by oven thermostatic System.
When button is green, relating burner is able To function.
When button is red, relating burner is unable
To function.
Refl ecting dome or bedplate temperature, Relating burner - when enable - can start To heat automatically the oven.
Yellow mark led is posted in the middle of icons for each burner dome and bedplate.
When light on, said led marks thermostat Intervention request based on selected temperature.
Only when enable the burner switch on
Automatically heating oven up to selected Temperature refl ected by relating monitor For dome or bedplate.
When selected temperature is reached up
Burner and relating led in the middle of Own icon switch off.

- Dome Burner: unable
- Dome Burner led: on
- Dome Burner status: OFF

- Bedplate burner: unable
- Bedplate burner led: on
- Bedplate burner status: OFF

- Dome Burner: enable
- Dome Burner led: on
- Dome Burner status: ON

- Bedplate burner: unable
- Bedplate burner led: off
- Bedplate burner status: OFF

- Dome Burner: enable
- Dome Burner led: on
- Dome Burner status: ON

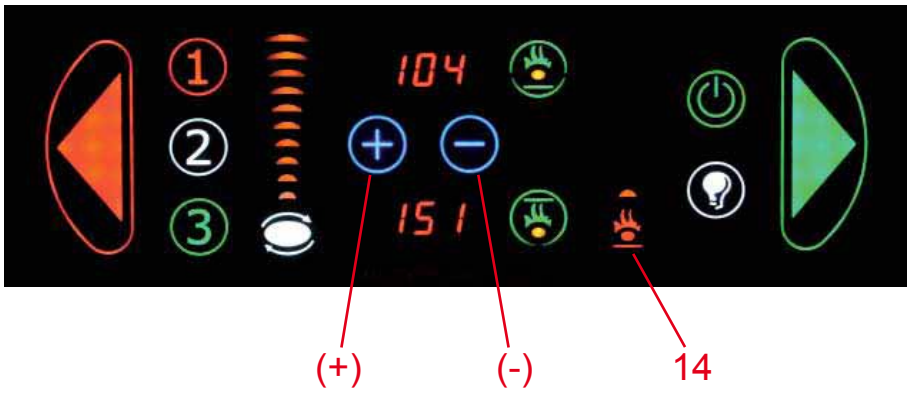
- Bedplate burner: Enable
- Bedplate burner led: off
- Bedplate burner status: OFF

6.3 TEMPERATURE SELECTION

It is possible to select minimum temperature for Oven dome and/or bedplate by a fi rst touch of Temperature monitor relating the dome or the Bedplate and going on pressing (+) or (-) Increasing or decreasing the temperature As one likes.
After 5 sec. without any action relived Display records parameter.
Flashing icon (4) Dome Temp. monitor or (11) Bedplate temp. monitor showing active Change status for captioned value.
By selected temperature for dome or bedplate, Relating burner, when enable to run, can Switch on to heat proper area.

6.4 DOME BURNER FLAME TUNING

Dome burner is modulating, fl ame can be settled Continuatively from minimum to maximum by fi rst One-touch on icon (14) “Dome burner fl ame modulator” followed by one touch on (+)/(-) Buttons to increase and/or decrease as much As one likes fl ame enlargement.
Icon (14) pulse light showing active changing Status on value.
Scale made by a series of queued lights, Posted on top icon (14) lightning in sequence following action relieved for button (+)/(-) After 5 sec. Without any action releaved Selected fl ame level becomes rekord.



6.5 OVEN LAMP

Ovens equipped by light system, display on screen Icon relating button (15) “light button”.
Switch on happens pressing said icon which shows Own action by color change from blue to white when light switch off becomes on.

6.6 WORKING PROGRAMME

Turning bedplate oven is the best to improve Production performance in restaurant environment to bake pizza and/or similar product by relating short time.
Due to own oven characteristics, as high is bedplate rotation speed, as better results Final baking, both due to temperatures homogenization and better thermo exchange Generated between oven and baking food.
Therefore is better to bake by speed higher Than needed lower one relating to product batch and churn out phases.
To reduce handle intervention, three
Fast selection push-buttons have been allowed at disposal on screen by icons showing three numbers “1”, “2” and “3”.
By said fast selction buttons user can set and Recall 3 different working programme, customized On his own needs based on 3 changeable values :

- U-1: Baking phase rotation speed
- t -1: Gap time between batch in and churn out
- A -1: Acoustic advice sound planned time over

PROGRAMME EXAMPLE.

Supposing turning bedplate equipped oven Our model MRI 130 (10 pizzas).

- Averaged baking time for a medium stuff pizzas : 3 mins.
- Batch in : 30 sec. abt.
- Churn out: 30 sec. abt.
- Gap time between above operations : 2 mins abt.
- Pulse quantity required o acoustic advisor : 5.

Program record on fast select marked by icon “1”.

- Press min. 5 sec. icon “1” to activate program phase.
- AOnce program phase is active icon “1” start to lightening while upper monitor (4) shows parameter “U-1”. Lower monitor (11) shows speed value input user can be selected by values between 0 and 20 pressing (+) or (-) buttons - i.e. input value 20.
- Within minimum 5 sec press again icon “1” and upper monitor shows “t-1” parameter for gap time between batch-in and churn-out phases. Lower monitor (11) shows on same time value (in seconds) for relating time. i.e. input value 120 as value in sec. for said period.
- Within 5 sec. press again icon “1”, upper monitor (4) shows parameter “A-1” relating acoustic advice for time-over planned. Lower monitor (11) shows value settled up by User with values between 0 and 10 selectable by (+) or (-) icon-buttons. i.e. Value 10 record ten advice sounds that are output by screen each time baking programme reach end-period for input time.

After waiting about 5 seconds, the system saves the program and makes it available once the the user will call through a short pushing the icon “1”.

USE EXAMPLE.

During regular bake working, User select value for turning bedplate speed, to get easy batch-in and churnout products without troubles.
After batch-in phase, user touch icon “1” and Recall programme rekorded in advance.
Bedplate start to turn more fast (speed=15) During a planned time period (equal to 120 sec).
Thereafter screen output a series of six sounds To alert user about baking end-time for fi rst Batch-in product.
User alerted can churn-out First pizzas and follows by others within an Averaged end abt. 30 secs.

6.7 SETTING A PROGRAMME EXAMPLE

1. Maintain pressed min. 5 sec. button (1).
- The upper digit value appears as in following picture.

- “U-1” parameter set-up

3. By (+)/(-) buttons state rotation speed During gap time : 20 (max.select).
4. Push again button (1).

- “t-1” parameter set-up

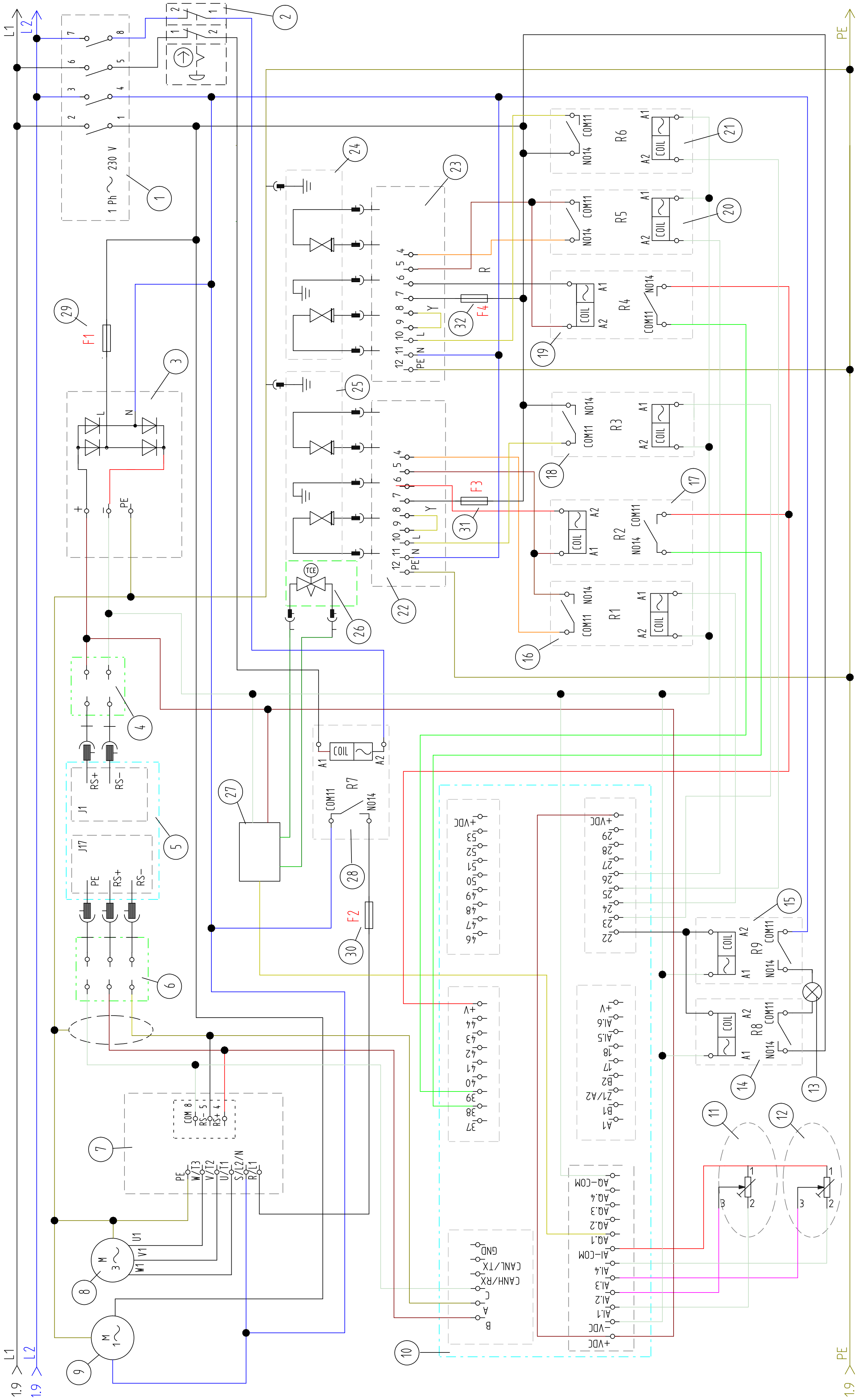
5. By (+)/(-) buttons state gap time Between batch in and churn out : 120 sec..
6. Press again button (1).

- “A-1” parameter set-up

7. Bip sounds number output for programme end: 10 (max. selectable).

After 3 seconds system records programme selected Which can be recalled pressing button (1).

User can record other two baking programs and rotation speeds onto buttons (2) and (3) which can be also settled selecting max time (999) for recorded rotation speeds to recall by correspondant icon..


L1
L2
PE
1 Ph ~ 230 V
F1
F2
F3
F4
R1
R2
R3
R4
R5
R6
R7
R8
R9
COIL
TCE
RS+
RS-
J1
J17